

Sameera K. I. (2022), Thesis. “Perspectives on GAIA a voyage to American green reading”. St.Thomas College- Thrissur, University of Calicut

CHAPTER III

TRACING SPIRITUALITY IN NATURE

Technological advancements in the contemporary era transformed people to more materialistic individuals and their sole focus is on the instrumental value of things, and as a result, people started exploiting the natural environment and thus destroyed the value systems that have been upholding the society. Such a situation gradually led to the emergence of a particular group of people who are more focused on ecospirituality, and keep a reverence for nature and its inhabitants. Ecospirituality is an outcome of the divine association between human beings and the environment. It integrates an instinctive and embodied consciousness of all life and employs an interactive relation between organisms and their surroundings. The proponents of ecospirituality intend to go back to a traditional way of living, which is more sustainable and consider all living things with due reverence. They strive to establish a spiritual connection between themselves and the natural environment. This group accepted an approach to life that is purely based on ecology and spirituality, giving justice to the lives of everyone on earth. John Gatta in *Making Nature Sacred: Literature, Religion, and Environment in America from the Puritans to the Present*, elaborates the emergence of a particular outlook among the American citizens. After the setting of pastoral idealism in the United States, there appeared a particular belief that gives prominence to the revitalizing and spiritual sustenance of nature. Such a belief could outlive industrialization, commercialization of agriculture, the intellectual victory of pragmatic sciences, and a technologically advanced mentality of the human population (4). It appraises the inner worth of natural things regardless of their material or commercial worth. The advocates of this belief system

established various organizations and camps to promote the balanced existence between human beings and nature and also framed different policies for the sustenance of the planet earth.

The traces of such a movement are visible in different major religions of the world. World religions like Christianity, Hinduism, Islam, Buddhism, and Jainism play a vital role in preserving the sustainability of the environment. The examination of these religions' theological texts hints toward the emergence of deep-rooted environmental activism. All these holy texts preach humanity about upholding a life system that goes hand in hand with the harmony of the environment. High deliberations on nature can be found while discovering the origin of Christianity and its progressive history. The story of the fall of Adam and Eve in the Bible shows both the constructive and destructive aspects of nature. The very instance of the fall of man points to human beings as responsible for the deterioration of nature and their disgrace. Bron Taylor in *Encyclopedia of Religion and Nature* illustrates the Christian approach to nature by comparing the earthly atmosphere in heaven and nature before and after Adam and Eve's irreverence to God: "The original harmony between nature, humans, and God is broken, leaving a transcendent God, a sinful humanity, and a degraded Earth in a state of mutual alienation" (312). According to the Islamic outlook of nature, it is the responsibility of human beings to safeguard the environment and God's creation in it (33:72). The Buddhist concept of the "law of interdependence" distinguishes nature as an interconnected whole. They believe that the phenomenon that is occurring in nature is based on the activities of all organisms. The theological deliberations of the environment require a thorough investigation in the field of natural sciences and also the inherent

value of the ecosystem. It highlights the importance of the interaction between various inanimate and animate objects, their interdependence, mutual understanding, and sustainability. The texts also portray various theological events depicting the devastation of people who attempt to question the harmony of the existence of the world through natural calamities. Attention has also been given to the heavenly joy experienced by people who keep a harmonious rapport with nature. They also advocate the endless use of all the natural resources in the web of life and various eco-friendly methods like recycling and decentralization.

Barbara Kingsolver's *Flight Behaviour* portrays a fine mixture of nature and spirituality. Nature plays a substantial role in shaping the destiny of various characters such as Dellarobia, Hester, Ovid Byron, and Bobby Oggle in the novel. The spiritual interference of nature transforms the life of Dellarobia. The stakeholders of ecospirituality consider nature, especially wilderness, has the power to transform the perception of an individual. In *A Companion to Environmental Philosophy*, Jamieson distinguishes wilderness from other landforms and argues that wilderness is defined as a region, where the environment and its inhabitants are "untrammeled by man". The area offers a kind of solitude and refreshment for its visitors and "may also contain ecological, geological, or other features of scientific, scenic, or historical value" (350). The Appalachian Mountains near Dellarobia's home form a part of the wilderness, where less evidence of human intervention is visible. Visitors to the Mountain can find solace and a kind of recreation there. The journey to the Appalachian Mountains plays a significant role in Dellarobia's life. Dellarobia feels relaxed and refreshed in the new atmosphere. She finds the journey to the Mountain as an escape from the inescapable miseries of her

married life. Being in touch with nature, Dellarobia experiences the bliss of her life and expresses her admiration for the divine existence in everything. Hence, the wilderness plays a significant role in fetching peace to the mind of Dellarobia, which was preoccupied with miseries and sorrows most of the time.

Each object in the Mountain generates some effects in Dellarobia. The sight of the monarch butterflies terrifies her at first, and she thinks it is a forest fire that will eliminate everyone and everything in the forest. She deciphers divinity in it later: “unearthly beauty had appeared to her, a vision of glory to stop her in the road. For her alone, these orange boughs lifted, these long shadows became a brightness rising. It looked like the inside of joy if a person could see that. A valley of lights, an ethereal wind. It had to mean something” (Kingsolver 11). She considers that there is the hand of God in that orange flame and the actual intention of the flames is to halt her from the crooked intention of her visit. The thought makes her examine the worse intention of her visit and feel guilty as she has come there simply to satisfy her sexual desire and everyone in her village will mock her for leaving her children for her crooked desires. Bron Taylor in *Encyclopedia of Religion and Nature* states that “there are strategies, especially for the religiously faithful who believe in the possibilities of a continuing revelation, by which wilderness, religion, and nature can be related” (1745). The sight has a constructive impact on her. With nature’s revelation, she awakens from her imaginary world that is filled with trivial thoughts about life and develops a consciousness of her responsibilities as a mother. She deliberates the sight of those orange lights that have a divine intention of making her lead her life on the right path. Thus, nature’s revelation transforms her approach toward life, which was earlier governed by mere lust.

The power of nature to renovate the lives of human being is an area of concern for the followers of ecospirituality. Nature assists human beings in finding hope during times of despair. Bron Taylor, in *Encyclopedia of Religion and Nature*, discusses the attempt by human beings to follow nature and transform their life optimistically. He traces the effort by human beings to resurrect their life with a renewed spirit and argues:

Across time and in countless ways, people of many cultures have gone into the wilderness to mark the life transitions and seek guidance. They sought closeness with God, the Mystery, or a higher self. They found time, a time alone, exposure to the elements in an unfamiliar place, a radical shift in self and world, a trial and a gift, and a ritual death and rebirth. The core of the form was clear: leaving the ordinary world, crossing a threshold, and returning with a gift and a task. It was an initiation, a rite of passage, a new birth in the womb of the natural world.

(1748)

Dellarobia spends some time alone in the lonely forest and she feels so much blessed and enlightened. The wilderness offers a chance to scrutinize her life till then. She evaluates the bright and dull aspects of her life. After the journey to the wilderness, Dellarobia appears a transformed person. She reconsiders her position in the environment. The wilderness witnesses the death of a submissive Dellarobia and the rebirth of a woman who has self-confidence and a sense of responsibility. The act entitles Dellarobia to a new task- to discover the reason behind the orange flames. Thus, Dellarobia returns from the wilderness with a task and a gift, which later leads to protection of the environment.

Various manifestations in nature have the power to renovate a person's life entirely or in parts. For instance, it is a fallen tree that leads to her meeting with Jimmy,

the telephone man, and makes her climb the mountain with a wicked intention. The appearance of the Monarch butterflies brings a positive change to her life. She perceives the meaning of the spiritual existence of nature and praises the glory of God. She endeavours to find meaning in the occurrence and denotes the flight of the butterflies as an “ethereal wind” (Kingsolver 11). The brightness of the butterflies causes terror in her mind and the orange lights emitted by the beings reflect a divine touch on everything. It precipitates her to wake up from her world of illusions and approach life in a more serious manner.

Hester’s ecospiritual aspect gets exposed while she attempts to establish a cooperative connection between the climate and the shearing day. On this day, the climate seems clearer and brighter as it helps dry the wet wools of the sheep and aids the people to earn a better profit by selling the shiny and bright wools of the sheep. She believes that “God had taken a hand in the weather” (Kingsolver 16). If the climate is not supportive and keeps raining the whole day, the wool would become foul and cause a tremendous loss for the trade. God turns the weather into a fine one and the clouds in the sky hurry away from the scene by comprehending the situation. “For the Abrahamic religions, Judaism, Christianity, and Islam, the environmental ethic is compatible with belief in the holiness of the Earth and the perception of nature as God’s handiwork” (Wilson 157). Hester expresses the same course of thought here. She invents divine intention in every natural occurrence in the universe, including the weather.

While climbing the mountain with her in-laws and husband, Dellarobia has a strong intention of finding the truth behind the orange glow that she found on the Appalachian Mountains some days ago. Dellarobia has been carrying fear in her mind

regarding the occurrence and she is afraid to share it with anyone else. She gets a full view of those sparkling orange things which are fluttering in the air like the fallen leaves during a strong wind. She identifies it as butterflies and the fear that took hold of her mind till then flies away with the butterflies. She grows overwhelmed with emotions and wonder. The incident causes joyful tears in her and she feels like sinking in a pond with bright coloured fish. She gets surprised by the sight and it brings out the hidden aesthetic beauty that lies in her mind asleep for a long time.

The presence of the butterflies transforms the forest into an ethereal world that has the majesties and glory of a divine ambience. Butterflies fill the sky with a golden glow. Every tree develops alive with the magical flight of the butterflies and it appears more like an entity which has a sacred soul inside- “The treetops and ravines all appeared in strange relief, exposed by the trick of air as a visible quantity. Air filled with quivering butterfly light. The space between trees glittered, more real and alive than the trees themselves” (Kingsolver 72). It reverberates the power of natural objects to spread the light of divinity and bring spirituality into the world.

Hester is a person who finds little time for spending on the Turnbow property. Dellarobia’s insistence to visit the place also compels her to investigate the place before they would cut its trees down. The first time visit to the land brings a spiritual transformation in Hester, forcing her to appreciate the sudden revelation of Dellarobia. Ecospirituality associates spiritual transformation of an individual to development of his personality.. Bron Taylor, in *Dark Green Religion*, argues: “Spirituality is often thought to be about personal growth and gaining a proper understanding of one’s place in the cosmos, and to be intertwined with environmentalist concern and action” (3). Nature

plays a significant role in altering the mindset of Hester about Dellarobia and the environment. It transforms her more spiritually awakened to admire the sacredness of nature. While observing the butterflies in the sky, she derives a kind of divine illumination coming out of the wings of the creatures and experiences a certain warmth that she craved in the unstoppable rainy climate. She praises the grace of God and appreciates Dellarobia for the sudden revelation that she received.

Man is supposed to occupy the most privileged position among God's creatures, as he possesses the gift of reason. Ecospirituality stresses the imbibe responsibility of human beings to comprehend the inherent divinity of all creatures. It considers human beings responsible for understanding the divine communication that occurs in the environment. Nature is mostly considered as a divine medium above its instrumental value to human beings. John Gatta expresses the same course of thought:

Humans... are uniquely qualified to know and to respond to the beauty of God's self-communication. Nonetheless, the material world does not exist solely to satisfy the will, pleasure, or self defined happiness of human beings. Its purpose surpasses instrumental categories... Nature, then, is not simply a storehouse of commodifiable goods but the very substance of our home as human beings.... its beauty as belonging preeminently to God. (65)

The vision of the butterflies blesses Hester with reason and it assists her to appreciate the inner worth of all creations of God. She forgets the hatred she possesses for Dellarobia and deliberates her as a medium for receiving God's grace. Earlier, Hester possessed a materialistic approach to nature, and the vision plays a significant role in altering her approach to nature as something heavenly.

The proponents of ecospirituality have faith in the manifestation of spirit in nature. They adopt an ecocentric view of nature that considers the inherent worth of all organisms. Bron Taylor in his *Dark Green Religion* argues that “every being and object is a manifestation of God or God’s activity, then everything has value, which presents a fundamental challenge to the prevailing anthropocentrism” (Taylor 8). The same notion of thought is apparent in Cub. The visit to the mountain conveys an ecospiritual reformation in Cub, who was a person devoid of any sentimentality toward nature until then. Cub attempts to invent a spiritual meaning for the migration of butterflies to the mountain. He asserts God has some plan by making the butterflies occupy the region and probably it would be for preventing them from cutting down the trees in the region. He feels reverence for Dellarobia and holds her on the shoulder and announces that “Y’ all just need to see Lord’s hand in this and trust in His bidding” (Kingsolver 76). Cub experiences the divinity in the visit of the butterflies and invites everyone to their place during church prayer. He openly announces his admiration for Dellarobia for foretelling the matter and denotes her as a woman with grace. Cub’s ecospirituality gets revealed through the sentence “It’s got us to thinking where the Lord must be taking a hand in things up there” (Kingsolver 98). Pastor Bobby Oogle also accepts the fact, and he expresses that the entire Turnbow family is so blessed with those holy creatures.

All the members of the Turnbow family become very much conscious of the recent visitors. Even the non-human creatures express their curiosity about the recent occurrence. According to the theory of ecospirituality, animals are always aware of any unusual happenings that are happening or going to occur in their surroundings. They can foresee any impending dangers or unlikely things that can destroy nature or other

creatures in it. The dogs in the Turnbow family, who stand very alert with their ears pricked and watch for any unusual changes from the regular pattern, express the same attentiveness.

The followers of ecospirituality assume the changes or different signs shown by the different objects in nature as God's way of reminding everyone of the invasion of various seasons or proclamation of some natural calamities that are going to transpire in the universe. Everything in nature can bring about a transformation in its state voluntarily to get adjusted to the various changes that occur in the universe. The speech delivered by the assistant pastor during the prayer time reflects the ecospiritual cult: "Lord shaking the wilderness and making the oak leaves whirl, presumably to remind everyone it was fall" (Kingsolver 90-91). The trees shed their leaves or different organisms migrate to various places before a particular season are examples of this cult.

There is a spiritual connection between nature and the organisms that live in it. The purpose of such a connection is to accommodate the changes that occur in the surroundings and bring a corresponding alteration in the physiology or place of residence of the organisms. Non-human creatures respond in the same way human beings respond to slight variations in the weather or other climatic conditions. The fact reveals the existence of spirit in nature and other non-human organisms. The same process of accommodation is visible in the butterflies' taking up more lipids before winter. The butterflies get fattened before winter and they consume as much lipid as their body can hold since they travel less during winter. "Their physiology is responding to the cold weather" (Kingsolver 304). By sensing the alteration of the season, the butterflies behave

as the normal migratory human population. Thus, the spiritual connection with nature that exists in organisms enables them to respond to slight variations in their surroundings. The seasonal changes have certain effects on the breeding levels of the butterflies. The statement made by Dr Byron to Dellarobia exposes a difference in the inbreeding and outbreeding habits of the butterflies: "The monarchs rely on a particular alternation between inbreeding and outbreeding" (Kingsolver 438). Non-human beings have an innate ability to respond to nature's transformation and possess a spirit to identify the changes and respond accordingly. Dr Byron elaborates the alternation as:

For most of the year, the genetic exchanges are relatively local. Summer Generations breed in smaller groups as they move north. Some might fly only a few miles from where they are born before mating and dying. But then, in winter, the whole population comes together in one place. The gene pool is thoroughly blended. (Kingsolver 439)

It reflects the inherent connection that exists between place and the spirit of various organisms. The butterflies join in a particular place after their long absence from each other with no communication in the summer.

There is a spiritual meaning in the pattern of the butterflies' migration. Butterflies have an attachment to their migratory route. The idea gets more revealed from the statement of Dr Byron regarding the migration of the butterflies: "Of newborn butterflies, for instance, somehow flying thousands of miles to a place they'd never seen, the land where their forefathers died" (Kingsolver 306). The spirit of the butterflies forms an unknown relation with the migratory land. The instance acknowledges the ethereal connection that exists between an organism and its surroundings.

The non-human organisms are believed to have some abilities that permit them to perceive climate changes and along with that to anticipate natural calamities. They hint at some unlikely occurrences through a transformation from their usual pattern. Many scientific studies have been conducted based on the adaptive process of animals and climate change. Foo et al. in “Acclimatization and Adaptive Capacity of Marine Species in a Changing Ocean” discusses the ability of marine population to bring a variation in their genes to adapt to the changes in temperature and PH level of the ocean because of climate change. There is an incident in the novel which alludes to the fact about the movement of crows: “crows flying over the field will cause it to snow tomorrow... Maybe it’s a storm front or something that makes both things happen, but the crows move first” (Kingsolver 336). Dellarobia possesses the ecospiritual trend in her, as she strongly believes in natural hints and predictions.

Organisms in the universe can change their physical characteristics to get adapted to diverse transformations in the ecosystem. By altering their physiologies, the organisms in the universe ensure their existence and the survival of their fellow organisms in a transformed environment. Jones et al. in “Positive and Negative Effects of Organisms as Physical ecosystem Engineers ” discuss the process of physical ecosystem engineering. The organisms in the universe maintain the accessibility of resources to other organisms by bringing an alteration to their physical state. Physical ecosystem engineering by organisms is defined as “the physical modification, maintenance, or creation of habitats” (1946). Trees perform a significant role in maintaining the atmospheric conditions conducive to the survival of all organisms. The fallen leaves on the ground control the impact of raindrops, drainage, temperature levels and gas exchange in the soil habitat,

and ensure the protection of flora and fauna and other microorganisms in the soil (Jones et al. 1946). The peach trees in Cook's dead orchard stand as a symbol of physical ecosystem engineering: "The skeletal peach trees in their rows leaned into the slope with branches upstretched like begging hands" (Kingsolver 355). The trees bring an alteration in their physiology by shedding their leaves in the heavy rain to assist other organisms to get adjusted with the climatic transformation.

The repercussions of climate change are perceptible in diverse forms in the novel . Even if they are the victims of fatal environmental destruction like unreasonable climatic conditions, the organisms try to find a kind of solace in nature and keep an optimistic attitude. The trees in the area appear in a destructed state: "The trees were skinnier here and the woods more open, though still as varied as any standing congregation of human beings" (Kingsolver 478). The trees in a destroyed wood keep such an optimistic attitude: "The woods possessed but one colour, brown, to all appearances dead. Yet each trunk rose up in its way distinct. Shaggy bark and smooth, all reaching for the sky, come what may" (Kingsolver 478). Even the trees appear physically very weak and spoiled. Like some individuals, they try to find hope in this destructed world: The trees firmly believe in the power of nature to restore its equilibrium from a degenerative state. The attitude of the trees expresses the Gaian idea of the earth's self-regulation. The earth has the power to regulate itself back to life, even after great turbulences and turmoil.

The supporters of ecospirituality find a spiritual meaning in the existence of certain organisms in the universe. They believe that these organisms have something to do with their spiritual life. As there is a common saying that the shining stars in the sky represent the dear ones who are dead, Juliet in the novel expresses the same impression

regarding the monarch butterflies: “Some people believe they’re the souls of dead children” (Kingsolver 536). Juliet is obsessed with the thought of watching butterflies flight. Ovid Byron is the other person who finds some solace in watching various organisms. He can understand some emotions of the non-humans. He comments on the pleasing appearance of the turtles while he watches them: “You can’t be anything but happy when you watch them. Their little turtle mouths are always smiling” (Kingsolver 540). Byron’s comment echoes the sensing power of natural objects and non-human organisms. He makes a similar comment regarding Dellarobia’s sheep: “When I look at your sheep, I am often thinking of turtles” (Kingsolver 540). Ovid Byron discovers the same sensing capacity in the sheep as well. Thus, Ovid Byron can be regarded as a person who asserts the existence of spirit or sensuality in non-human organisms.

The followers of ecospirituality envision nature as a sacred garden and consider it the responsibility of human beings to keep the sanctity of this greenhouse. In *A Political Theology of Nature*, Peter Scott discusses Richard Sylvan’s view on ecocentric tendencies. Sylvan defines ecocentric tendency as understanding the inner worth of each organism and learning to approve its wisdom. He stresses the obligation of human beings to regard the worth of each organism and the failure of which may lead them to suffer its aftereffects (64). The menders of the garden get rewarded well by nature positively or negatively as per their act. Our existence in nature is entirely based on our deeds. The song sung by the choir members of the church reflects the aspect: “*You may live in this garden if you keep the grasses green, and I’ll return in the cool of the day*” (Kingsolver 549). The verse stresses the importance of maintaining a well-balanced environment. It reveals the Gaian view that the destructions that the human beings cause to the

environment will get repaid to them in the earth's process of self-regulating itself. The earth transforms through many processes in its attempt to regulate itself. Many dangerous effects take place in its aftermath, including natural calamities and extinction events. Usually, human beings are the sole sufferers of these calamities, as they are the promoters of global destruction.

The divine existence is present in every endeavour of nature. The advocates of ecospirituality propagate the idea that everything on earth deserves utmost reverence and sanctity. The thought of the existence of the heavenly spirit in various organisms on earth will save them from any malicious actions that will lead to the destruction of their sanctity. Peter Scott discusses the existence of a common realm for human beings, nature, and God in *A Political Theology of Nature*. He infers that the proper understanding of nature and humanity is only possible in mutual co-explication with the concept of God (Scott 31). Bobby Oggle expresses the same idea: "If God is in everything, he asked, how could we tear Him down? A love for Creator means we love His creation" (Kingsolver 550). He argues human beings should acknowledge the part that nature plays in their healthy existence. The best way to express one's devotion to God, the creator is by respecting its creation.

According to the Christian view of spirituality, the world is created for the glory of God and God blessed each organism with divine wisdom and providence during their creation. Thus, all organisms hold the divine spirit inside them and no organism is superior to the other (Scott 96). Showing veneration for nature helps to understand the holiness in everything. Bobby Oggle expresses the same idea: "May we look to these mountains that are Your home and see You are in everything. The earth is the Lord in the

fullness thereof” (Kingsolver 551). Bobby Oggle’s statement reveals the spiritual existence of God in the universe. He observes nature as the abode of God and the entire earth represents God. The Gaian concept of earth as a self-regulatory system and the ecospiritual idea of the living earth that has the power to control every existence are echoed here.

Nature has the rare capacity to penalize the perpetrators who maintain irreverence to its organisms and inanimate objects. The fatal acts performed by selfish human beings have the power to raise the rage of nature and make it defend its position in the universe. Sometimes this revenge stands as a threat to the healthy existence of all organisms on earth: “when a man is greedy and gets too big for his britches, he pays for that... If you can’t live by the laws the Lord God made for this world, they’ll go into effect regardless” (Kingsolver 555). The lines can be linked to the Islamic way of spirituality. According to the Quran, it is the responsibility of human beings to protect the environment, and the failure of which can lead to punishment (33:72). This view of spirituality can be linked with the Gaian perception that it is the duty of the human beings to protect the planet earth, not because they are the only sentient creature, but because human beings enjoy the same status as other creatures on earth (Leakey 245). When different organisms cause the earth to lose its equilibrium through various self-centred activities, the earth efforts to rebalance itself and many improbable events transpire. These implausible events usually affect the survival of different organisms on the earth. Thus, human beings are expected to protect the environment from these unlikely events.

Earth has the power to comprehend the changes that occur in each organism’s life and respond accordingly. The last paragraph of the novel portrays the spiritual dimension

of nature: “The sky was too bright and the ground so unreliable, she couldn’t look up for very long. Instead, her eyes held steady on the fire bursts of wings reflected across water, a merging of flame and flood. Above the lake of the world, flanked by white mountains, they flew out to a new earth” (Kingsolver 597). The earth wholeheartedly welcomes the new beginning for Dellarobia and the Monarchs. The event reflects the self-generating power of the earth by eradicating all the uncertainties that prevail in the ecosystem. This very idea has a connection with the Gaian ideology of the self-regulating process of the earth to maintain its atmosphere suitable for the survival of all organisms on earth.

Margaret Atwood’s *The Year of the Flood* gives a detailed portrayal of the ecospiritual aspects of various characters such as Toby, Ren, Pilar, and especially a community named God’s Gardeners. Most of Atwood’s characters keep a spiritual affinity toward nature. Atwood connects the present ecological crisis with the greed of profit loving, selfish human beings. The novel begins with a hymn from *The God’s Gardeners Oral Hymnbook*. The hymn illustrates the beauty of the garden and how it provided once a place of shelter for all the creatures and how happy were they while residing in it. It can be traced from the hymn how the greed of human beings has destroyed that joyous and divine garden, which was once solace for all the creatures in it. The new ugly face of the garden creates a kind of gloom even for the birds and it causes them to cease their regular musical treatment. The hymn ends with a positive note that the gardeners will arise and they will restore the beauty of the garden. Simon Levin argues for the importance of keeping the sustainability of the environment in every realm of human interaction. He states that “Sound and responsible environmental management demand fair and sustainable stewardship of common resources. It requires recognizing

that the biosphere is a highly complex adaptive system and learning how to harmonize human activities with the rest of that system” (198). The gardeners can be reckoned as the best followers of this ideology, who attempt to bring back the once joyful garden, which is on the verge of destruction now. Many ecologists have traced such an emerging attitude among the responsible personalities in the universe. Hemenway talks about the same movement in his *Gaia's Garden: A Guide to Home-Scale Permaculture*:

A movement is a foot toward more natural landscaping. Many gardeners are turning their backs on the lawn, in particular. People are digging up their resource-guzzling grassy swards and installing native plant gardens, wildlife-attracting thickets, or sun-dappled woodland habitats. It's an encouraging trend, this movement toward more ecologically sound, nature-friendly yards. (3)

The garden symbolizes the entire universe and the devastating state of the garden will affect the existence of other creatures on earth. There is a spiritual connection between the garden and its inhabitants. During its splendid days, the garden provides a kind of leisure and comfort for its inhabitants. The devastating state of the garden affects tiny creatures such as birds and other aquatic animals and even human beings. They accept the grief of the garden and lament over its loss. The beautiful birds put an end to their sweet song as lamentation. The state of the garden depicted at the beginning of the novel demands the need for a collective approach by human beings to save the planet from the verge of destruction. The novel depicts the formation of a collective effort to save the planet through the activities organized by the God's Gardeners, a community that stands for the wellbeing of nature.

There is an ardent effort by a group of people titled the ‘God’s Gardeners’ to restore a sacred garden in the universe. The name of the garden that they are creating on their rooftop itself suggests an ecospiritual tone. By naming the garden Edencliff Rooftop Garden, they are trying to create an Eden on earth. The act implies their endless effort to restore heaven on earth, which was lost because of the selfishness of the greedy human beings. Bron Taylor, in his *Encyclopedia of Religion and Nature*, mentions the same type of attempt by Wes Jackson, the founder of Land Institute, in 1976. He states that “His “eco-agrarianism” is founded upon the idea that agriculture should mimic the way that an undisturbed ecosystem operates in a given place” (892). Like that, the Gardeners propagate an eco-friendly method of farming that is devoid of chemical pesticides and employs eco-friendly means of cultivating the land by maintaining the habitat of various organisms in the universe. The Gardeners avoid the use of any materials that threaten the existence of other organisms in the universe. They take strenuous efforts to keep a habitable atmosphere in the garden that perpetuates the lives of fellow organisms on the earth.

The Gardeners attribute divinity to all the creatures and try to envision the positive aspect of everything. Toby Hemenway opines that “in many ways, creating an ecological garden is a restoration project. The soil in most yards is poor, important species are missing, and healthy cycles are broken. Thus, people who restore damaged landscapes for living- restoration biologists have some things to teach us” (118). The Gardeners have to take an arduous effort to convert barren land into a fertile one. They take great initiatives to bring a good harvest and attempt to teach the universe about the virtue of hard work and the importance of keeping the sanctity of nature that is divine.

Their endeavour to restore the degenerated earth can be related to their reverence for the ecosystem and concern for future generations.

Ecological crisis and hope are two antagonistic realities, because ecological crisis tries to inculcate all the negative emotions such as depression, pessimism, and melancholy in the minds of the victims. Anne Marie Dalton and Henry C. Simon states the connection between the ecological crisis and hope in the introduction to their work *Ecotheology and the Practice of Hope*. They try to stress the tension existing between these two antagonistic terms: “The ecological crisis continues to seep into our beings, producing anxiety, sadness, guilt and sometimes despair... Although the hope we seek in the light of ecological devastation almost always seems elusive, it remains the motivational horizon against which many find the energy to confront the crises” (vii). The optimistic attitude of the gardeners to restore the good old past of the universe even at the time of serious ecological crises illustrates the possibility of hope in times of the greatest disasters.

Atwood endeavours to illustrate the inherent value of all organisms through the example of vultures in purifying the earth. She describes them as “God’s necessary dark angels” (Atwood 4). There is a spiritual dimension to the existence of vultures as they play a vital role in keeping the cleanliness of the world by feeding on dead and decayed organisms. God has assigned certain obligations to all organisms and none of them is superior or inferior based on the glory of their responsibilities and everyone’s existence is valued based on their inherent worth:

Wild nature has unparalleled instrumental value: the water we drink, the air we breathe, the silicon chips we rely on. Human life cannot be sustained, let alone

achieve well-being, apart from the multifold goods of wild nature. In addition, independent of its contribution to other goods, wild nature itself has value for us—mountain lions and otters, rivers and towering mountains, the wind blowing through pine trees. Even if we left this world to live on self-sustaining star-ships, wild nature would retain this intrinsic value for those who knew and remembered the wonders of earth. (Fern 11)

Atwood appraises the intrinsic worth of all organisms through the representation of the vultures as God's dark angels. She considers vultures as the friend of humanity, who plays a significant role in purifying the earth (Atwood 4). Vultures feed on dead and decayed organisms and they retain a greater role in the elimination of dead bodies and promoting energy transfer. The gardeners deliberate death as a necessity and otherwise, it will lead to chaos in the universe. Gaia hypothesis stresses the role of death and germination in keeping the chemical balance of the atmosphere. Many tiny organisms are needed to maintain this process. So, every organism deserves reverence, not because of its instrumental values to the human beings, but its intrinsic worth in keeping the balance of the ecosystem to keep it habitable.

Most of the characters in the novel consider all the creatures as fellow beings. The speech delivered by Adam One during the creation day celebration reflects the idea. At the beginning of the speech itself, he addresses the audience as “dear friends, dear fellow creatures and dear fellow mammals” (Atwood 11). He makes an in-depth explanation of the creation of ‘Edencliff Rooftop Garden’. The place which was once a centre of all the wickedness and was adorned with a heap of wastes is converted into a glittering beauty of

freshness and serenity. He contemplates the act as redemption of God's creation from the barrenness and imperfections of the world.

... Wild nature, whatever its instrumental or intrinsic value for us, has inherent value in this sense. If it does and, thus, turns out to be a direct object of moral concern, it will have a claim to be treated with moral respect. This, in turn, will mean that we may act immorally with regard to wild nature even where we treat other humans without fault, as thieves who fairly divide ill-gotten gain. If nature has moral worth, then, as Holmes Rolston affirms ...“humans are not free to make whatever uses of nature suit their fancy, amusement, need, or profit.” (Fern 12)

Fern elaborates on the idea of doing justice to fellow organisms. The lines highlight the urgency of keeping a moral concern for nature because of its inherent worth. Adam One maintains the same view, and he preaches the gardeners about protecting the entire planet from the anthropocentric destructions of pollution and exploitation. Adam One congratulates the gardeners on their effort to transform the earth from the mischievousness of human beings.

The hymn by the gardeners “When Adam First ” reveals the spiritual aspect of the existence of all the creatures in the universe. When God creates human beings, he has an intention that the humans will live in harmony with all the other creatures and it will be convenient for them to have a better comprehension of the ways of God. When God creates Adam, He gives Adam all the prosperities of paradise and he establishes a rapport with all the birds and animals in the paradise and which provides him with a better chance of understanding the intentions of God in a better way. There, he treats all creatures with greater affinity and they enjoy a more amicable existence. Both Adam and

the other creatures spend their time together in fellowship and are engaged in singing and praising the glory of God. Even their gestures are considered a form of divine praise for their joyful existence. When humans touch the earth, everything undergoes a complete transformation, and pride, lust, and greed take the place of love, togetherness, and fellowship. The world is transformed into a more anthropocentric one and the creatures who suffer more are nature, birds, and the beasts. The gardeners express their grief over the transformation and they wish to go back to the good old past and they name the other creatures as friends and fellow beings in their inner hearts.

All the creatures on this earth are the fragments of the same ecosystem. God engineered everything, and He has given all the organisms the ability to sense the situation and comprehend the inner conflicts of their fellow beings. Bron Taylor, in *Encyclopedia of Religion and Nature*, describes the Jainist view regarding the sensual power of various organisms in the universe:

The Jainas were careful to observe and describe the many life forms that they hoped to spare. They catalogued them according to the number of senses they possess. Earth bodies, plants and microorganisms (*nigodha*) are said to possess the sense of touch. Earthworms and mollusks are said to add taste to touch.

Crawling insects add the sense of smell. Moths, bees and flies add sight. At the highest realm, Jainas place animals that can hear and those that can hear and think, including reptiles, birds and mammals. (893)

According to the Jainist worldview, nature can sense human presence and behave accordingly. Bron Taylor in his *Encyclopedia of Religion and Nature* expresses the special power of nature to infer the happenings in and around them: “the material world

itself contains feelings and that the Earth feels and responds in kind to human presence. Not only do animals possess cognitive faculties including memories and emotions but also the very world that surrounds us can feel our presence” (894). While Toby explores her surroundings using the binoculars, she is very much conscious about her movement as she fears that all the surrounding creatures can sense her intention:

The trees look as innocent as ever; yet she has the feeling that someone’s watching her- as if even the most inert stone or stump can sense her, and doesn’t wish her well. Isolation produces such effects. She’d trained for them during the God’s Gardeners Vigils and Retreats. The floating orange triangle, the talking crickets, the writhing columns of vegetation, the eyes in the leaves. Still, how to distinguish between such illusions and the real thing? (Atwood 17)

Thus, Toby is a person who strongly trusts the sensual ability of non-human organisms in the universe. She controls her actions and attitude in the presence of nature, even if there are no other human beings present.

Much scientific research undertaken by various scholars confirms the notion that organisms are capable of altering a particular environment or get assimilated to it subsequently. John Maynard Smith in his *Theory of Evolution* states that “The study of evolution is concerned with how, during the long history of life on this planet, different animals and plants have become adapted to different conditions, and to different ways of life in those conditions” (15). Such an adaptation can be traced from the novel while examining distinct characters such as Adam One, Zeb, and Toby. In the speech delivered by Adam One at the SecretBurgers, he recounts how his life gets transformed when he perceives the light of truth. His scientific knowledge is commentable, and he had

undertaken serious studies in epidemics. His studies mostly focused on the dead and decayed animals and along with that, he analysed the dead bodies of human beings as well. Being a scientist, he was totally detached from the emotional aspects of organisms. For him, these creatures were just numbers and in his outlook, they were equivalent to the inanimate objects. He paid little attention to the inherent worth of those creatures. He had been a regular customer at the SecretBurgers and had consumed many burgers stuffed with the meat of endangered animals. One day while dining at the SecretBurgers, he perceives a light and hears an influential voice that said “spare your fellow Creatures! Do not eat anything with a face! Do not kill your Soul!” (Atwood 34). That light and the prophesying voice cause a real transformation in Adam One and he becomes a renovated individual who strictly follows the cult of ecospirituality and keeps the purpose of protecting the lives of various organisms in nature. Fern discusses the importance of purpose in life:

Intentionality, purposefulness, gives a life depth, means that it is not exhausted by the things done to it. Its good encompasses that of agency, the pursuit of one’s own ends, the living of life as one chooses. As a result, agents care about their life, judge it to be going better-or-worse and, in accord with their capacity, adjust their plans and actions accordingly. Here, it must be borne in mind that agency is not an all-or-nothing proposition. (Fern 17)

Adam One tries to make his life more fruitful, not by concentrating on materialistic or worldly things, but by bringing about a change in his way of living. He accepts an optimistic attitude and firmly believes in the possibility of hope in the future. Bill McKibben in his *Hope Human and Wild: True Stories of Living Lightly on the Earth*,

stresses the importance of an alternate way of living that is devoid of materialistic or selfish desires and deeply rooted in giving due consideration to nature and its all inhabitants: “I found proof there that there are less damaging ways to lead satisfying human lives, evidence that infatuation with accumulation and expansion is not the only possibility” (5). Adam One’s attempt to find hope by sacrificing the materialistic and worldly pleasures exposes this concept. Adam One leads a life that is rooted in nature, giving due admiration to his fellow inhabitants on the earth.

The ecospiritual cult in Adam One is revealed while he is preaching at the SecretBurgers. Adam One addresses Toby as “my child” (Atwood 49). Toby refuses to accept this, as she does not want to belong to anyone. He explains the reason by saying that “We are all one another’s children” (Atwood 49). The followers of the ecospiritual cult believe in the existence of a spiritual connection between all the fellow creatures. On the outer level, the organisms show no signs of this spiritual connection. But inertly, they are all so interconnected and are part of the same universe.

In ecospirituality, nature holds the power to renovate human minds from the barrenness and pollutions of the artificial world. It believes in the conviction that various objects in nature join to bring a positive transformation in the minds of individuals, who are “tired of the moral and material pollution of the city” (Garrard 59). Atwood depicts the real transformation that takes place in Toby once she reaches the garden. Earlier, she was told by people that the garden was a real mess, with many vegetable wastes and a stinking smell. Once she reaches there, she experiences the holy in the garden. She enjoys the beauty of the garden and observes the variety of flowers and plants that enrich the garden. Different bees and butterflies dance there and even the leaves and petals shine

with joy, giving her a warm welcome. Toby feels very much relieved in the new atmosphere. She experiences some invisible hands protecting her from the chaos of the entire world. Later, she comprehends that the feeling was provided to her by the act of keeping harmony with God's creatures. The proponents of ecospirituality assert that by keeping harmony with nature and its organisms, one will be blessed with the feeling of security. Toby experiences the same situation here.

Toby is a victim of all kinds of depression and disasters. Even if she had a peaceful childhood life with her parents in the countryside, the death of her parents leads her to mere hopelessness and insecurity. She is left to face all kinds of torture, including sexual, mental, and physical, till she reaches the garden. The garden creates something holy in her and she inculcates optimism and survival in the face of that devastated world. Anne Mary Dalton et al. state: "practices of hope resist despair even in the face of clear ecological degradation. As practitioners of hope, Christian theologians are sober in their judgments about the certain results of business as usual in our relationship to the earth; still, they do not give up their intense effort to pull the world back from the brink of ecological disaster" (viii). Even if Toby experiences a lot of suffering in her personal life, she keeps hope and becomes a part of the movement that stands for protecting the environment.

The gardeners conduct a celebration to welcome Toby to the group. The things that are offered to Toby as welcoming gifts are- a pot full of honey and a jar containing purple objects like elderberries. Gardeners create a holy atmosphere for the ceremony and treat objects as the Holy Grail. They attribute a divine quality to the natural objects and assume the coming of Toby to the group as a sacred occurrence.

The characteristics of God's Gardeners illustrate the ecospiritual cult. They believe in the spiritual existence of nature and educate others about it. This cult can be linked to the Buddhist concept of ecospirituality. Bron Taylor, in *Encyclopedia of Religion and Nature*, discusses the first moral "precept" of Buddhism, which is abstention from the killing of any animate beings. "Since animate beings include not only men but also animals, the first precept is a strong basis for animal ethics in Buddhism" (Taylor 233). The gardeners strictly follow a lifestyle that is deeply rooted in customs and conventions that keep the balance of the ecosystem. They are strict vegetarians and preach the importance of guarding the life of other fellow beings. They warn the entire world against killing animals for food and other material gains.

The followers of ecospirituality observe nature to make predictions regarding the alterations in the environment. According to them, various animals and birds can foretell the occurrence of some natural calamities. The God's Gardeners are very much conscious of a slight change that transpires in the environment and they are so immersed in the spirit of the ecosystem. They are very expert in envisaging the outbreak of some natural calamities by observing a break in the regular rhythm of the environment. They predict the coming of some impending disaster by studying the chirping of the birds and they announce that the world is coming to destruction and only people who keep a spiritual affinity with nature will survive afterwards. The Gardeners assume that they will survive to restore the environment.

The gardeners believe in the inner worth and unending utility of all objects. They do not even spare a waste material. They make the optimum utilization of all resources. They practice methods like reusing and recycling. They create various objects using

waste materials and find alternate uses for those objects. During the feast of Adam and other primates, Adam One makes an elaborate discussion of the method of God in creating man. He addresses the audience as “fellow gardeners” on earth and calls the earth “God’s Garden” (Atwood 61). He attributes a spiritual dimension to the existence of human beings on earth and stresses the significance of their role in beautifying the Earth—that is God’s Garden. He makes special mention of the Tree of Creatures made by the gardener children from plastic wastes and illustrates how ugly things can be put to expert uses.

Adam One talks about the intention of God in creating human beings, and he makes a staunch criticism against the atheistic attitude of the scientists. He says that God has a plan in creating everything as what they are and how they look like. The scientists do not believe in the existence of God as they cannot do any experiments to prove His existence. Adam One perceives God as a pure spirit, who is beyond all measurements. God has instilled His spirit in everything at the time of creation and gave various forms to it. So everyone on the earth bears the light of truth inside them and it is the responsibility of every creature to venerate each other, keeping the inner spirit ever shining and sacred. God has created human beings and poured them with the same blessings as animals. But the greed, appetite and uncontrollable emotions, and the sense of questioning, make them fall from the original garden and they are sent to the earth. God commands them to restore the original garden on the earth with all its blessings and indifferences. The God’s Gardeners consider it is their responsibility to obey the words of the Almighty and they strive their best to create a new Garden of Eden on the earth.

The promoters of ecospirituality believe the animals are so humble in praising their Lord for His blessings and man is so busy satisfying his greed. According to Christianity, at the time of creation, God commanded men to live the animal life. But the thirst for knowledge makes them question everything, and they gain the knowledge of good and evil. They try to raise above all creatures and it leads to their downfall. God's gardener's opine that man behaves as if everything belongs to him and exploits the rest for his selfish and unending desires. Man belongs to everything and every creature on the earth possesses equal status. Everyone has a soul and inner worth. Nobody is superior or inferior to each other as they carry the spirit of God inside them. God's Gardeners believe that human beings have to shed their pride and pour justice and mercy on other fellow beings.

The speech delivered by Adam One on the Festival of Arks is purely ecospiritual in nature. He appreciates the children who made their representative arks for showing reverence for the creatures involved in the First Flood. He says that the act of children is praiseworthy as the entire world is dishonouring God's Creatures, the Gardener's children find a way for showing the entire world the need for valuing their fellow beings. They possess a kind of optimism as they try to keep hope in the endangered world. Their act has an instructional purpose for the other children and the ego centred humanity.

Everything that happens at the Festival of Arks carries an ecospiritual cult in it. The meal that is offered, the adornment in the surroundings, the games conducted as part of the festival, the prize which is offered for the winner, the prayers said, etc. are deep-rooted in ecotheology. Rebecca makes a special lentil soup for the occasion. The dish is served as an indicator of the First Flood. Another dish made in the shape of Noah's Ark

contains many animal formations made with vegetables. Turnip is used to designate Noah, and it is hidden somewhere among the vegetables. People are asked to find Noah from the food and those who find it will be rewarded with a special gift of a picture painted by Nuala, showing the things that should be carried at the time of the waterless flood.

On the occasion of the Festival of Arks, Adam One makes a special prayer for all the creatures who got destroyed at the time of the First Flood. He praises God for protecting the species of the animals for the future generation and he expresses his joy over the fact that most of the animals in the sea survive except a few which are destroyed because of high temperature and salinity in the sea water. Adam One considers it is their responsibility to protect all the species that are saved by God for the coming generations. He opines that God is very creative in keeping the harmony of the universe by adding musical notes and rhythmic quality to it through various creatures. He says that all artificial music is worthless and low in quality in front of the heavenly music God maintains in the universe.

Adam One tries to stress the fact that it is the responsibility of humanity to protect the entire species through the example of Noah and the First Flood. He argues Noah was forewarned about the coming of a great flood and the destruction of the entire universe. He was assigned building an ark and keeping the pairs of all the species in it. Even though there were angels and other superior creatures, Noah, who is a representative of humankind, was solely assigned to the task. He says that man has the power of both destruction and construction and man is solely responsible for what is occurring in the universe. The universe can be transformed into heaven depending on the evil intention

and goodwill of humanity. He gives examples of the Mediterranean and the Amazon River banks. Both places were once fruitful and fertilized farmland is converted into a mere barren island through the evil acts by human beings. Adam One tries to illustrate the facts through the lines:

Then God says a noteworthy thing. He says, “And the fear of you”- that is, Man- “and the dread of you shall be upon every beast of the earth, and upon every fowl of the air... into your hand are they delivered.” Genesis 9:2. This is not God telling Man that he has a right to destroy all the Animals, as some claim. Instead, it is a warning to God’s beloved Creatures: Beware of Man, and of his evil heart.

(Atwood 67)

Adam One observes God’s Gardeners as plurals of Noah. As Noah was indebted to save different species of animals during the time of the Great Flood, the God’s Gardeners get assigned to save all the creatures at the time of the Waterless Flood. They have to fill the storerooms of their Ararat with every needful thing for the time of the great disaster. They maintain an amiable relationship with all the flora and fauna and believe that it is their responsibility to ensure a secure life for those organisms. The hymn sung by the Gardeners illustrates the ecospiritual aspect. They announce they are the friends of all the creatures and they will protect various species from great disasters and lead a life that keeps harmony with various organisms.

God’s Gardeners attribute a spiritual dimension to the existence of the bees and the mushrooms. They believe the bees are good listeners and anyone can share their miseries with the bees. Pilar introduces Toby to the specialities of the bees. She says that each bee has a different name and a different purpose for its existence on earth. They

trust the bees can sense human beings through smell and understand their intentions. Pilar advises Toby not to hurt the bees even if they sting her because the bee stings only when they are fearful and they avoid stinging most of the time as it destroys their life itself. The God's Gardeners have some myths associated with the presence of bees. They believe that a bee somewhere shows an unexpected visitor. The bees need to be treated well without hurting them, as it may lead to the occurrence of some bad intention by the visitor. They believe in the healing power of honey. The presence of bees in different months has different indications as the bees can sense the change in the atmosphere in a much better way than the human beings do: "A swarm of bees in May, worth a cool day. A swarm of bees in June, worth a new moon. A swarm of bees in July, not worth a squashed fly" (Atwood 73). Ecospirituality ascribes some hidden divine intentions in the presence of some organisms at a particular time and place. The same idea can be deciphered from the bee concept of gardeners.

The Gardeners believe that all the organisms in the universe have some spiritual connection with the other world. The fact is best illustrated with the examples of the bees and the mushrooms. Pilar, the Eve Six, says that the bees and the mushrooms have connections with the eternal world. Bees are believed to be the creatures who carry messages to the dead people and mushrooms are viewed as a flower in the garden of the eternal world (Atwood 215). She says that the real mushroom plant exists under the ground and what we see in this world is a mere shadow of the real. She describes different categories of mushrooms- those used for eating, medicinal purposes, and also for vision. The most important use of the mushrooms is for creating a vision in the people. Usually, the purpose is exploited during retreats and other religious gatherings.

All human beings pass through a state of monotonous life, forgetting the purpose of their lives. The mushrooms act as a magical agent and aid in creating a vision in the fallow human beings. She also talks about poisonous and non-poisonous mushrooms. Poisonous mushrooms are created by God serving their special purpose and the poisonous mushroom is not inferior to the non-poisonous ones. There must be times that require the use of poison, and the poisonous mushrooms serve the purpose. The gardener's belief in the inner worth of the different organisms and admiration for the cause of the existence of different creatures on earth is reflected here.

The Gardeners believe in the healing power of all the natural objects. Usually, they follow natural methods for curing diseases and avoid using medicines that contain high amounts of toxic chemicals. They treat honey as a heavenly medicine, which has magical powers for curing diseases. They make an immense collection of many medicinal objects, including mushrooms, honey, roses, and poppy plants in the storerooms of their Ararat. They list out the medicinal advantage of some creatures - the antibiotic property of the maggots and moulds, the healing powers of the honey, and the ability of the spider's web in preventing the blood flow from a wound. The cult is best revealed when Zeb gets injured. They use maggot therapy to heal the wound. They believe that maggot therapy is best suited for curing the cuts and wounds faster as the maggots possess an inborn ability to destroy infectious bacteria. Irrespective of feeding on decaying flesh, the maggots hold a positive aspect of killing the infectious bacteria in cuts and wounds, helping the fast healing of the injury. Maggot's therapy was very much popular in ancient times, especially at the time of the First World War. Bortman notes:

People must recognize that animals, plants, and the ecosystems that sustain them have intrinsic value- that is, are valuable in and of themselves- quite apart from any use or instrumental value they might have for human beings. The genetic diversity found in insects and plants in tropical rain forests is to be protected not (only or merely) because it might one day yield a drug for curing cancer, but also and more importantly because such biodiversity is valuable in its own right.

(Bortman 355)

The gardener's method of treating diseases using natural objects and organism reflects the ecospiritual belief in the healing power of nature.

The customs and ceremonies associated with the marriage of the Gardeners follow an ecospiritual touch in it. They follow very simple and nature friendly customs devoid of any other luxuries. The pairs need to announce in public in front of a witness that they love each other and like to live together. Following the public proclamation, they exchange green leaves as a symbol of growth and fertility and jump over a bonfire to admire the energy of the universe. Those who complete these customs get declared married. Everything is performed vice versa with a divorce. They have to proclaim in public that they are no longer in love and like to get divorced. At the time of divorce, dried twigs are exchanged in the place of green leaves and the couples jump over a heap of cold ashes. Both these customs reflect the bright and dull sides of nature that stand for happiness and sorrow.

There is an ecospiritual aspect to the character Ren. Ren has been locked in the Sticky Zone at the time of the flood. Everything was offered to her there, and she spends her time mostly singing and dancing. She considers music as something divine and it is

instilled by God in man, and man can sing like a bird and also like an angel. She believes that singing is something that comes from our inner soul and God can sense us very well while we are singing and it is the best way of praising the virtues of God. She considers the singing of birds and angels sacred and believes that through singing; they are showing devotion to the Lord who created them.

Some activities undertaken by the God's Gardeners can be related to the 'EarthSpirit Community' in Massachusetts discussed by Bron Taylor in his *Encyclopedia of Religion and Nature*. The community was founded by Andras Corban Arthen and Deirde Pulgram Arthen in 1980. Taylor lists out various ecofriendly activities organized by the EarthSpirit Community:

At both the festivals and open circles organized by EarthSpirit, the focus is on what they believe all neopagans share a magical worldview and reverence for the Earth. Animals, streams, trees, the wind, and stones are all venerated as part of the sacred web of creation. Woven into the fabric of the rituals is a theme that humanity, which is viewed as part of the sacred web, needs to honour and protect nature. The group encourages its members to be environmentally responsible.

Some outdoor rituals include the planting of trees or the removal of trash from public lands as a symbol of the participants' reverence and care for Mother Earth.

(Taylor 530)

Ecospiritual people show veneration to all objects regardless of their utilitarian value.

While taking into consideration the different materials offered in the Tree of Life Natural Materials Exchange, it reflects the inherent worth of all materials. The exchange is held in an ancient house made of all the natural materials like clay, sand, and straw. All the

materials offered for sale comprise waste materials. God's gardeners take an ardent effort to collect various waste materials and scraps from public places and abandoned areas. They make the optimum use of these materials and turn them later into various useful objects. There are ornaments made of paper clips, handbags with unused magazine pages, and knitted animals with waste objects, and the things that are used for packing are also made from recycled plastic. They grow cabbages around the edges of their installation for adornment. Bron Taylor discusses different festivals conducted by the EarthSpirit Community, showing reverence to nature. They organize different celebrations related to various seasons to express gratitude for nature:

EarthSpirit is best known for its festival, Rites of Spring, which takes place yearly around Memorial Day weekend in western Massachusetts... The theme of the gathering changes each year but always focuses on the spiritual connection between participants and the Earth. EarthSpirit also organizes three smaller gatherings- Twilight Covening in the fall, Suntime in midsummer, and the Festival of Lights in mid-winter—as well as workshops throughout the year to train neo-pagans in aspects of magical or ritual practice or to facilitate discussions of topics such as the spiritual connection between people and the Earth as reflected in the folklore and practices of indigenous peoples. (Taylor 529)

The same effort is reflected in various activities undertaken by the God's Gardeners. They celebrate different days, showing reverence to the holy spirit of nature. They put the names of various saints to highlight the importance of the day. The preparations for the day begin even one week before it and everyone takes part actively in glorifying the

significance of the day. Every day has some significance and the natural objects associated with the day vary depending on their importance.

Saint Euell's week is associated with the gathering of many tiny creatures of germination and storing different eatable food materials at the time of emergency. Different gardeners are assigned guiding others in gathering various objects. Pilar, the Eve Six, is indebted to teaching others to gather fungi, and Burt, the Adam Thirteen, is assigned to instruct others in identifying poisonous weeds from the non- poisonous ones. He tells the children to eat from all edible weeds and avoid eating any if they are in doubt and look if another creature like a mouse has eaten it. If any other creatures have eaten it, it is secure to eat as they are much closer to nature and can identify the aspects of nature better than human beings. Zeb, the Adam Seven trains the older children on hunting small animals in case food materials are scarce. He says that eating small animals is not a sin if we show gratitude and seek pardon from them. He teaches them the lesson of sacrifice and tells them that human beings should be ready to offer their body to other creatures as nourishment after their death (149-50). Everybody is connected so closely in the food chain, and the existence of one depends on the other. St. Euell's week can be associated with the ecospiritual concept of the intrinsic worth of all organisms heedless of their instrumental value. The Gardeners celebrate the divinity in nature and the interdependence between various organisms through St. Euell's day.

Adam One tries to emphasize the instructional power of nature through the example of Saint Euell Gibbons. The story of Saint Euell carries the spirit of ecospirituality in it. Saint Euell is assigned the responsibility of looking after his family at a small age and he scarcely gets any chance of getting educated in a formal school. He

provides for his family with his natural knowledge and finds his teachers in the natural species. He gets well versed in the uses of fungi and other small creatures and understands the spiritual worth of all dangerous creatures. He is well educated on the medicinal value of various plants. He teaches the entire world not to waste any insignificant plants, as they are rich sources of vitamins and other medicinal properties. Even if they appear insignificant in the human eyes, he tries to emphasize the inner worth of all creatures. The God's Gardeners follow his words as a sacred text and seek his spiritual support during the days of the Waterless Flood. Gaia hypothesis also stresses the same idea. Schneider et al. in the Preface to *Scientists Debate Gaia: The Next Century* state: "one group of organisms makes use of the waste products of another group, inadvertent "associations" are formed with local or large-scale effects on the nonliving environment; such effects can benefit both groups of organisms without forethought or "altruism" being involved" (xv). Both these courses of thought mirror the interdependence of all organisms in the ecosystem and their inherent worth.

Tiny organisms, like bacteria and fungi, play a significant role in maintaining the equilibrium of the universe. It is the tiny organisms that keep the equilibrium and the gaseous level of the ecosystem. Tyler Volk, in his *Gaia's Body: Toward a Physiology of Earth*, discusses the role of tiny organisms in the process of denitrification:

The ammonium made by nitrogen fixers satisfies the nutrient needs of land plants and of algae in lakes and oceans during protein synthesis. Other bacteria, the nitrifiers, fairly quickly convert ammonium into nitrate, which also suffices for the protein-building cellular machinery of plants and algae. The marine cyanobacterium *Trichocoe*, *Jnzlum* fixes nitrogen and thereby directly promotes its

own capability for photosynthesis. Overall, the biological flux of fixation that transforms nitrogen from atmospheric gas into its usable forms in soil or water is the main flux from the atmosphere that counterbalances the flux of denitrification. With regard to the atmospheric pool of nitrogen gas, fixation is a sink and denitrification is a source. (41-42)

The gardeners celebrate Mole Day to emphasize the role of each organism in keeping the balance of the ecosystem by keeping a favourable climate and helping in gas exchange. In *Scientists Debate Gaia: The Next Century*, edited by Stephen H. Schneider et al., James Lovelock cites the view of various bio-geochemists A.C. Redfield, V. I. Vernadsky, and G. E. Hutchinson and states that “organisms were more than mere passengers on the planet, and geochemists were aware that organisms in the soil accelerated rock weathering and that weathering was faster in hot climates, but no one saw that these were parts of a global system able to regulate climate and chemistry” (1). On Mole Day, God’s Gardeners praise the tiny creatures that live underground in keeping up the equilibrium of the universe. The Gardeners’ children are so busy decorating the Edencliff Rooftop Garden with installations of tiny creatures fashioned from waste materials. They praise the God-given powers of creativity and make the best out of all the worst materials. Unused hair combs, plastic bags, and even the strings of unused dresses are used to make all tiny creatures like ants, different worms, and termites. By making the optimum use of all discarded things, they revitalize the inner worth of everything. They venerate the worth of everything in the habitat and applaud the virtue of all tiny creatures in keeping harmony in the environment. The bacteria are praised for defending the universe from inimical invaders and the place of flora in keeping the equilibrium of the

universe is also admired. Those tiny creatures which harm human beings are also honoured on Mole Day by praising their inner worth:

True, we are sometimes infested with nanobioforms we would prefer to be without, such as the Eyebrow Mite, the Hookworm, the Pubic Louse, the Pinworm, and the Tick, not to mention the hostile bacteria and viruses. But think of them as God's tiniest Angels, doing His unfathomable work in their own way, for these Creatures, too, reside in the Eternal Mind, and shine in the Eternal Light, and form a part of the polyphonic symphony of Creation. (Atwood 113)

Gaia hypothesis also stresses the role of microorganisms in keeping the earth's equilibrium. James Lovelock in *Gaia: A New Look at Life on Earth* argues that "the large animals, plants and seaweeds may have important specialist functions, but the greater part of Gaia's self-regulating activity could still be conducted by micro-organisms" (106). The protection of microorganisms has so much importance in Gaia as it helps to maintain the chemical composition of the planet and makes the earth exercise its regenerative power.

Ecospirituality stresses the importance of the biodiversity in the soil and honour the role of each organism on the earth. Hemenway in *Gaia's Garden: A Guide to Home-Scale Permaculture* illustrates the existence of multitudes of tiny organisms in a land:

"An acre of good pasture may support a horse or two, say about a half-ton of aboveground animals. But living in the soil of that acre may be 2 tons of worms and another 2 tons of bacteria, fungi, and soil animals such as millipedes and mites. That one horse-per-acre soil may contain eight or ten horses worth of animals below ground" (58). The gardeners also give importance to biodiversity and they call the ants, the earthworms, and the nematodes as 'God's Workers on the Earth' and venerate their valuable effort in

naturally tilling the barren soil and making it a fertile one. These tiny creatures spend their whole life in darkness in the holes in the underground. They sacrifice their lives to turn the earth into a livable place. The importance of soil organisms is highlighted in ecospirituality. Hemenway argues that various organisms in the soil work together to form the fertilizer a plant needs. They become the part of this process “as they eat, excrete, reproduce, and die”. In this process, the organisms of the soil “perform an alchemy upon organic matter and minerals in the ground” (58). This reflects the role of tiny organisms in the universe in keeping its balance and making it more fertile.

Soil is regarded with utmost sanctity ecospirituality. It praises the miraculous powers of the soil. Soil is considered a platform where the dead organisms are carried back to life. Hemenway describes the natural process of bringing dead organisms back to life:

Here, in the thin earthy boundary between inanimate rock and the planet’s green carpet, lifeless minerals are weathered from stones or decomposed from organic debris. Plants and microscopic animals eat these dead particles and turn them into living matter. In soil, matter crosses and recrosses the boundary between living and dead, and as we have seen, boundaries edges- are where the most interesting and important events occur. (57)

The soil is considered sacred in ecospirituality. James Christopher and Fitzgerald also discuss the sacredness of soil and consider soil as a living entity: “a variable entity and a living entity, and one with which, as an entity, every farmer and gardener is intimately concerned. Most people in the world are still farmers or gardeners, and they, who handle the soil, must look upon it and treat it as a living whole. For it is as a living thing, not as a

dead medium” (4-5). Thus, the power of soil in the development of life systems is stressed by ecospirituality. The gardeners also adopt the same ecospiritual approach to soil. They make a staunch criticism of ancestors’ way of cremating the dead bodies and argue that the ancestors were ignorant of the ways of nature and the interdependence of various creatures. The ancestors buried the dead bodies with countless decorations; they applied various agents to preserve the corpse and encased it in luxurious coffins. The gardeners contend that by doing this, the ancestors are ungratefully destroying the sacredness of the spirit and the soil. According to the gardeners, human beings have to repay the gifts that nature offered to them and they have to submit themselves to nurturing other creatures.

The God’s Gardeners are mostly vegetarians and they avoid eating anything with a soul. They admire the inherent virtue of all creatures. Whereas, some gardeners eat pigeon’s eggs as they believe pigeons are not an endangered species. Adam One teaches the gardeners that the eggs are not creatures who possess souls inside. They consider eggs as potential creatures who bear a potential soul inside. Some gardeners avoid eating the eggs, whereas some others eat them. They do not condemn the eating of eggs and they seek pardon from the mother pigeon while eating it.

The gardeners firmly believe in the ability of nature in predicting the impending uneasy things. They are keen observers of nature and note down every unusual occurrence in nature. Adam One forewarns the gardeners about the coming of a waterless flood that would destroy everyone and everything on earth. The gardeners are indebted to examine even a slight transformation from the usual pattern. They give little importance

to the imagination and they are warned by Adam One not to cross the boundary of their imagination and be a loser in the timeless world:

While the Flood rages, you must count the days, said Adam One. You must observe the risings of the Sun and the changings of the Moon, because to everything there is a season. On your Meditations, do not travel so far on your inner journeys that you enter the Timeless before it is time. In your Fallow states, do not descend to a level that is too deep for any resurgence, or the Night will come in which all hours are the same to you, and then there will be no Hope.

(Atwood 116)

Ecospirituality attributes reverence to fellow beings, regardless of their utilitarian values. The rat expeller the gardeners produce echoes their ecospiritual cult. They create a mixture of certain scents that are enticing for the rats; by smelling that, the rats take a diversion in their path: “The goal was to remove the rats from the former and rehouse them in the latter, without loss of life: the Gardeners didn’t want to displace a fellow Species without offering them accommodation of equal value” (Atwood 208). The supporters of ecospirituality are against causing any danger to fellow beings. Nature lovers need to ensure the existence of their fellow creatures and justify their position in the ecosystem. The gardeners take significant efforts in sheltering the rats, an animal that is unworthy in the anthropocentric sense. Thus, they are considered strictly a biocentric community that compliments the existence of all organisms in the universe.

The revelatory power of nature is emphasized in ecospirituality. Nature has a role in enlightening human minds and transcend their existence. Bron Taylor in *Dark Green Religion: Nature, Spirituality and the Planetary Future* recounts the revelation that Lord

Buddha had from nature. The Bodhi tree enlightens Lord Buddha by removing ignorance from his minds and gifting wisdom (Taylor, 228). Gardeners believe in the revelatory power of nature. The gardeners keep a vigil throughout the night to find answers to their dilemmas and difficulties in life. When Toby is confused about following the gardener cult, Adam One advises her to keep vigil at night to derive a solution for her confused state. The fact is revealed in Toby's conversation with Pilar- "he wants me to do an overnight vigil. To pray for guidance" (Atwood 203). Pilar advises Toby to have a drink that contains the extracts of some natural herbs to make finding a solution to her problem easier: "You will get an answer of some kind, on this. It never fails. Nature never does betray us" (Atwood 203). The gardeners find hope in nature and they believe in the power of nature to transcend human minds.

It is nature that announces the imminent vision to Toby during her vigil overnight. The tomato plant in the garden through its incessant movements informs Toby of her vision: "Soon the plant began to glow and twirl its vines, and the tomatoes on it started to beat like hearts. There were crickets nearby, speaking in tongues: quarkit quarkit, ibbit ibbit, arkit arkit..." (Atwood 204). The vision that Toby receives is also related to nature: "behind her eyelids, she saw an animal. It was a golden colour, with gentle green eyes and canine teeth, and curly wool instead of fur. It opened its mouth, but it did not speak. Instead it yawned" (Atwood 204). Later, Pilar interprets the vision as "that's a good sign. You'll be helped with strength when you need it" (Atwood 212). The gardener's belief in nature's power in predicting the future is also revealed here. They follow natural signs and revelations in their life.

Fire has some significance in the Hindu religious conventions. Bron Taylor in *Encyclopedia of Religion and Nature* discusses the significance of fire in Hinduism: “Agni, the god of fire, is seen as a messenger between human beings and the deities because offerings were placed in the fire to be carried to other worlds” (764). The same way of thought can be traced from the novel at the time of Pilar’s death. Toby states that “the candle flared up at the moment of Pilar’s death as if a little surge of air had passed it... Spirit, an energy that cannot be grasped or measured. Pilar’s immeasurable Spirit Gone” (Atwood 215). The travelling of Pilar’s spirit to the other world has influenced the candle fire. The belief in the Hindu concept of fire and spirit can be traced to Toby’s statement.

Carl Hiaasen’s *Skinny dip* depicts the spiritual aspect of nature. Nature plays a significant role in the evolution of its plot. The protagonist Joey and other important characters in the novel, such as Mick Stranahan, Corbett Wheeler, Rolvaag, and Maureen, believe in the spiritual dimension of nature. Many incidents depicting the existence of spirituality in nature can be traced from the novel. Weather plays an imperative role in determining the destiny of Joey Perrone. Chaz decides to put an end to Joey’s life by tossing her into the ocean. He plans all the events systematically with the reasoning of a scientist. He intends to toss her in the water somewhere at the beginning of their voyage- “somewhere between Nassau and San Juan, with the expectation that the currents would carry her body into Cuban waters, safely out of U.S. jurisdiction” (Hiaasen 19). But the unpredictable weather plays a significant role in saving her life: “Unfortunately, the weather had been splendid during that early leg of the cruise, and every night the outside decks were crowded with moony-eyed couples. Chaz’s scheme

required seclusion, and he'd nearly abandoned hope, when the rain arrived, three hours after leaving Key West" (Hiaasen 19). The pleasant atmosphere compels Chaz to postpone his plan, and the rain provides him with a chance to implement his plan. The weather stands as a supporter to Joey and the current of water leads her to a safe zone. The incident reveals the sensual power of nature in deciphering the incidents taking place around.

In ecospirituality, many plants are considered sacred because of their healing powers. Bron Taylor, in *Encyclopedia of Religion and Nature*, discusses the religious significance of plants. Taylor states that "the religious significance of plants is also related to their healing properties... The medicinal texts of Ayurveda... find that trees have medicinal qualities" (770). Mick Stranahan is a staunch believer in the healing power of nature. He applies natural herbs like aloe and freshwater to treat Joey's eyes, which got sick after travelling for a long time through the saltwater.

When Joey narrates her life story to Mick, the Doberman listens curiously with great patience. Joey feels so much grief over her husband's cheating on her and his attempt to kill her by tossing her into the ocean. She considers various facts to discover the reason Chaz has done such a cruellest act to her. She contemplates the good old days that they spent together and expresses her sorrow for what has happened right now. She feels very much affected by the grief and sits in a melancholic mood. Even though Joey is a stranger and has little affection between them, the Doberman senses the situation and tickles her feet as a way of consolation. The act makes Joey smile and forgets her agony for a moment. The Doberman's action reflects the power of animals in comprehending the problems and turmoil in their fellow beings' lives.

Corbett Wheeler possesses a love for God's creation and he tries to derive solace by mingling with the innocent creations. While moving to New Zealand, he dedicates his time to sheep husbandry even if it is not much profitable. The refreshment he finds from the activity is well expressed in the words "Nothing gave him more joy than sitting on the porch of his farmhouse, taking on a joint and gazing out upon verdant slopes speckled in pewter with rams, ewes, and lambs" (Hiaasen 86). His sister invites him several times to visit the homeland, but he rejects the request simply in the name of the lambs. Actually, "Corbet Wheeler couldn't imagine a life without lambing" (Hiaasen 87). Corbett Wheeler loses his parents at an early age. It is the connection with nature that makes him forget the sorrows and miseries of his life. It is the profession of farming and the connection with the pasture lands consoles Wheeler to escape from the barrenness of his life. Like wilderness, ecospirituality believes in the power of pasture lands and non-human organisms to transcend the human mind.

Corbett Wheeler's conversation with Joey and Stranahan exposes his ecospiritual aspect. He fills his conversation with accounts of the ewes and lambs on his farm. He lives in a secluded atmosphere, spending a major part of his life in farming. It can be inferred that he prefers the company of innocent creatures of God, the lambs, to selfish human beings. His view regarding the sheep is strictly ecospiritual in nature. He states that: "These are the most peaceable creatures on God's green earth. Strange as it seems, I vastly prefer their company to humans" (320). The statement can be related to Jesus Christ, who kept some affinity with the innocent creatures of God and chose a lifestyle that is strictly in commune with nature.

Another conversation with Rolvaag also reveals Corbett Wheeler's affection and admiration for God's creation. He persuades Rolvaag to do farming, and he assures him that the very act of farming will help him overcome the barrenness of the mind created by his hectic work in the police service. He stresses the importance of sheep farming and states that "the lamb is a universal symbol of innocence" (Hiaasen 353). It echoes his trust in the magical power of nature and other non-human organisms to elevate the minds of human beings and protect them from the barrenness of city life and human problems.

Maureen is one character who trusts in the therapeutic influence of nature. She is suffering from cancer and takes morphine regularly to escape from the unbearable pain caused by the disease. During times of excruciating pain and lacking convictions, she turns to nature to get renewed and reassured. She maintains great wonder for God's creation and admires various occurrences in nature. Her conversation with Tool exposes her belief regarding the divinity in nature: "Every time my faith is shaken, I look up into the big blue sky and see God's work practically everywhere. Just imagine a bird that flies all the way from Manitoba to Key West. Every single winter!" (Hiaasen 326). The attitude of Maureen can be related to the tenets of the Dark Green Religion. Bron Taylor, in his *Dark Green Religion*, discusses the significance of appreciating one's position in the universe. He cites James Lovelock and Gore to illustrate the fact: "the simple fact of the living world and our place on it evokes awe, wonder, a sense of mystery- a spiritual response- when one reflects on its deeper meaning." People experience God, Gore added, "in every corner of creation" (181). Nature stands as a painkiller for Maureen and it promotes her faith in the power of God. Different natural occurrences keep her closer to God and keep her hope of escaping from the incurable disease.

Karl Rolvaag maintains an inseparable connection with his homeland, Minnesota, and boundless concern for each organism on earth. He even keeps pythons in his home and feeds them well. He is only concerned with the prosperity of one of the earth's organisms, regardless of its precarious aspects. Rolvaag can be considered as a person who trusts in the inherent worth of all organisms regardless of their dangerous effect on human beings.

Some factors link all organisms in the universe, irrespective of their individual or other contextual differences. Ursula K. Heise deliberates the similar interconnectedness in *Sense of Place and Sense of Planet*: "earth's inhabitants, regardless of their national and cultural differences, are bound by a global ecosystem whose functioning transcends human made borders" (25). The same bonding can be outlined in the relationship between Mick Stranahan and Joey Perrone. Regardless of their gender or cultural differences, they develop a thick bond between them and join hand in hand in the struggle to protect the Florida Everglades. The same concern for nature evokes an attraction in Joey toward Chaz. Joey grows inclined to Chaz when she gets to know about the fact that he is working to protect the Florida Everglades. Hence, most of the characters in the novels reflect the spiritual dimensions of nature and stress the necessity of guarding the environment.

CHAPTER IV

UNEARTHING THE ANTHROPOCENE IN THE SELECT FICTION

Living organisms experience an an utterly disastrous situation through a large-scale extinction of diverse species. Human beings embarrass the earth beyond its limits, which is the sole reason various natural calamities. Along with various disasters, there emerges the dissolution of various natural habitats, like rain forests, coral reefs, and wetlands. The entire planet is haunted by pollution in myriad forms. A substantial increase in global temperature adds to the miseries of all organisms on earth. Human beings are regarded accountable for all these natural catastrophes. The global community must apprehend these fatal calamities unless they will challenge the survival of everything and everyone on earth.

There are certain 'events of extinction' on earth from ancient times itself. There is a vanishing of a sizable amount of earth's inhabitants every year. The earth witnesses the disappearance of different varieties of fish, animals, and even geographical features like wetlands, coral reefs, rain forests, etc. The superfluous use of natural resources by human beings such as excessive consumption of endangered species, annihilation of the habitats of the organisms in the name of developmental activities, and high level of pollution that human beings create for their egotistical needs can be attributed to the source of all these fatal advancements that emerge in our ecosystem. All these destructions caused to the environment trigger the dissolution of the human species along with other organisms. The drastic change in the environment precipitates many negative effects on human beings. Many people are the sufferers of cancer and diverse fatal diseases because of the presence of ultraviolet rays and other unstable elements in nature.

Many unprecedented events transpire in the environment due to drastic fluctuations in the climate. Various catastrophes such as unusual rainfall, excruciating heat, floods, drought, tsunamis, and other dangerous storms menace the planet. Human beings can be considered exclusively liable for these climate changes. In *Encyclopedia of Environmental Ethics and Philosophy*, J. Baird Callicott and Robert Frodeman examine human-induced climate change and contend that human beings are creating an effect on the global climate since the year 1896 by suspending carbon dioxide and other gases through the burning of various fossil fuels. The actions institute great dangers to the global climate and biological systems. They quote Svante Arrhenius, the Nobel Prize-winning physicist, regarding the rise in global temperature. Arrhenius forewarns the doubling of carbon dioxide, which will lead to an increase in atmospheric temperature by about 4 to 6 degrees Celsius in the future (458). Arrhenius' statement foreshadows the future generation of the consequences of uncertain increases in the global temperature.

Climate change's effect cannot be delineated at the instant it is happening. It is a progressive process and turns an irreversible one once it advance. Antonia Mehnert in *Climate Change Fictions: Representations of Global Warming in American Literature* argues: "the impact of climate change is cumulative and cannot be immediately felt. Moreover, so far it has been in the uninhabited areas of the world... where early signs of climate change have been detected" (53). Literature furnishes an opportunity to perceive the happenings in the future with a realistic representation of some fictional characters. Jennifer Rose White explains the power of literary works and asserts that they "can project our understanding and appreciation of invisible, slow, and slowly accelerating crisis into the future in a dramatic way that other forms of discourse lack. [Novels] can

also legitimately collapse or juxtapose time for maximal impact and understanding in a way that science, biology, and even history cannot” (240). Thus, climate change fictions play a decisive role in elaborating the ramifications of climate change.

Climate change can be ascertained as one of the vital issues in the novel *Flight Behaviour*. A sequence of events that emerges in the novel can be perceived as the repercussions of climate change. A warning voice that urges the readers to introduce requisite measures in serving the planet to make it more sustainable for the vigorous existence of all organisms can be distinguished from it. The novel explores the complexities of a world that is struck by climate change. The dreadful experience of various characters in the novel, including the humans and the non-humans due to infelicitous transformations in the environment, can be discerned from the novel. The degeneration of a world which was once flourished with the diversity of various animals, species, and even tiny creatures can be mapped out throughout the progress of its plot. Greg Garrard in *The Oxford Handbook of Ecocriticism* discusses the recent advancements in the field of science that lead to ecological destructions and the common folk’s dismissal of the relevancy of ecological imbalances:

Environmentalism has brought much-needed attention to the problems biodiversity losses pose to human survival on the planet. As a recent poll by the American Museum of Natural History revealed 7 in 10 biologists believe that mass extinction poses a colossal threat to human existence, a more serious environmental problem than even its contributor global warming, and that the dangers of mass extinction are woefully underestimated by most everyone outside of science (Garrard 344).

The quote exposes the inattentiveness of the public to distinct ecological transformations, such as global warming, animal extinction, and biodiversity loss. Most of the characters in the novel disdain the scarcity of biodiversity, whereas Dellarobia can be regarded an exception to this view.

During her journey to the Appalachian mountain, Dellarobia witnesses a huge orange flame devouring the entire forest. She intends to examine the occurrence and attempts to discover the plausible reasons for the same. She associates the incident with a recent occurrence in various parts of the world: “trees were getting new disease now” (Kingsolver 17). The lack of balance in the climate generates the rise of certain pests and they eventually lead to the destruction of several trees in the surroundings. The summers become wet and the winters milder. This precarious condition induces the outbreak of numerous insects, proposing a reduction in the fertility of the forest and making several species endangered: “The wetter summers and mild winters of recent years were bringing in new pests that apparently ate the forest out of house and home... the day couldn’t decide whether to warm up or not” (Kingsolver 17). James Lovelock in *The Vanishing Face of Gaia: A Final Warning* alludes to Sir John Houghton’s view on the transition in the atmospheric temperature and its repercussions. He illustrates how different aftereffects of climate change in diverse parts of the world finally add to the destruction of the entire planet. According to him, climate change will be more palpable in the Polar Regions as it precipitates the melting of ice and causes Greenland and Antarctica lose their ice caps. The changes that arise in these regions lead to the hike in global temperature and sea levels and eventually affect the entire planet (15-16). Hence, the

transformations created in one part of the world upset the conditions of the earth and all its systems.

Climate change can be contemplated as a global issue, the effect of which gets manifested differently in different parts of the world. While some parts of the world experience the melting of ice, another part boils at a high temperature. There may be excessive rainfall in one part of the world, while another experiences a high snowfall. All these changes institute various calamities in the world, such as drought, flood, rising sea levels, tsunamis, and other threats, such as the extinction of animals. The same condition can be observed in the novel. As the Appalachian Mountains receive heavy rainfall, Mexico experiences a high temperature. The effects of these unprecedented changes are different in both these places. The condition in Mexico urges the people and other organisms, especially the Monarch butterflies, to migrate to another land, whereas the people in the Appalachian region experience a flood-like situation due to heavy rainfall.

Climate is an imperative factor that determines the existence of various organisms in the universe. An affirmative change in the climate affects the organism positively and the undesirable vicissitudes will be reflected in its life adversely. Disparate elements in nature respond to climate change differently. While some embrace climate change, others force themselves out of that climate. Tony Eggleton, in *A Short Introduction to Climate Change* notes, "In climates in which life pauses for the cold of winter, plants and animals respond to the warmth of spring. Trees bud, frogs spawn, birds mate and caterpillars hatch from their dormant eggs. And if spring comes early, so does the re-awakening of life" (Eggleton 13). The consequences of climate change are obvious in disparate elements of the novel, such as the garden, landscapes, and the monarch butterflies. It can

be delineated from the garden in Hester's home, too. The garden is in a completely deteriorated state and makes the hard work of Hester to keep it in a luxurious position in vain: "Hester's flower beds had melted under the summer's endless rain and so had the garden... prized rose beds were reduced to thorny outposts clotted with fists of mildew" (Kingsolver 24). Climate change proposes a great deal of loss to Hester. Her expensive plants in the garden get withered in the persistent rain and the garden's elegance gets subsided in the new climate. Climate change's impact gets reflected in nature and nature is left in an utterly destructed state.

The irregular change in climate can be detected in the comment that Preston passes regarding Christmas: "Preston gave up hoping for a white Christmas and asked his mother if Santa knew how to drive a boat" (Kingsolver 169). They experience heavy rain as opposed to its usual pattern, and it has made their life miserable. The intensity of the rain can be traced from the following statements:

It fell on them in sheets and gushes, not normal rain anymore but water flung at the windows as if from a bucket. At times, it came through the screens, visibility zero, and gusts of air seemed to burst from the ground, swirling the deluge around in clouds of spray. Groundwater was rising everywhere. The front yard became a flat, grassy pool. (Kingsolver 169)

Climate change not only disturbs nature but also all organisms in nature grow vigorously distressed by it. The unexpected rain leaves the surroundings in a flood-like situation and it precipitates the life of the people miserable.

Climate change generates an unpleasant experience on the monarch butterflies. Their usual habitat in Mexico is transformed to a completely destructed place in the

unlikely climate and they migrate to the Appalachian Mountains for an enhanced environment. But the condition there turns extremely worse and adds to a menace to their robust existence. The dead bodies of these tiny organisms appear in large quantities in various parts of the mountains: “Piles of dark detritus lay in leafy clumps at the edges where the flow had receded, and these... were not leaves but corpses” (Kingsolver 171). Tony Eggleton, in *A Short Introduction to Climate Change*, discusses the role of climate in the life of insects. The food habits and the endurance of the insects are entirely based on the climate where it lives. Eggleton argues that:

Insect species are confined to places where the climate is right for them. In the case of butterflies, this may be because caterpillar-food plants thrive in that climate or the caterpillar itself survives best there. Whatever the butterfly’s reason, one study has shown that of European butterflies, two-thirds have moved their range northward over the past century, some by as much as 200 kilometres. Such a change implies a move in order to remain within the insect’s preferred climate range, which in turn implies that the climate has changed, and in this case, because it is getting warmer. (14)

The climate change in Mexico adversely distresses the butterflies. Global warming urges the Monarch butterflies to leave their regular habitat by being dispossessed and suffering starvation. Many of them die of unbearable climate and shortage of food in the transferred region. Here, climate change serves a notorious role in eradicating a particular species from the face of the earth. Thus, species extinction engendered by climate change is one issue that the novel deals with.

Climate change can be said to possess certain constructive aspects. The rain quickens its flow throughout the mountain path to reveal the exploitations and annihilations caused by the materialistic individuals to mother earth. A place uninhabited by human beings can be seen as a pile of waste deposits. The rainwater brings down most of the waste materials deposited by men in the sacred bed of the mountains:

How much man-made flotsam had washed down from above, given that no one lived up there: a flat-sided plastic bottle, bright yellow under its ancient patina of dirt. White shreds of plastic grocery bags. A large, rumpled panel of corrugated tin. Old fence posts tangled with barbed wire, from some upland boundary that was surely no longer relevant. Cigarette butts, also some traces of some personal past. (Kingsolver 186)

Climate change performs a decisive role in instructing human beings about the deterioration and damage they inflict on the planet. The heavy rain brings down many shreds of evidence for human annihilation in nature. It plays a vital role in exposing the malices wreaked by human beings secretly. People deposit many waste materials above the mountain which are not inhabited by anyone. They keep the matter of waste disposal a secret. Whereas nature itself takes a hand to divulge it to the entire world.

Human beings initiate many discrepancies in the atmosphere as part of their daily routine. Greg Garrard in his *The Oxford Handbook of Ecocriticism* points out how man's intervention adversely affects nature irrespective of the geographical location, gender, or class differences. He states: "They use the Earth's resources at vastly at different rates, generate waste in vastly different ways, and transform vastly different aspects of the planet: its atmosphere, waters, and soils, its genes, species, and ecosystems. And they do

this, again and again, every day, all over the world” (391). The regular habitat of the monarchs is in Mexico, and they migrate to the Appalachian Mountains for their survival. Their existence in the Appalachian region is also imperiled by various natural calamities, like heavy rain. The major factor that stands as a menace to their survival can be attributed to climate change and the actual reason behind it can be related to the profit-loving citizens of the region.

Trees, especially forests, play a significant role in preserving the balance of the ecosystem. The carbon cycle in the atmosphere is basically controlled by the trees. The forest ecosystem operates as the principal agent in preserving the gaseous level in the atmosphere. Freer-Smith et al. in “Forests and Climate Change: the Knowledge-base for Action” elaborates the role of forests in upholding the equilibrium of nature. They argue that forest environment and the soil store a higher amount of carbon than it is present in the atmosphere and the primary cause of the present day climate change is considered as an anthropogenic one. The current ecology experiences a transformation in the global carbon cycle through the release of carbon dioxide and methane (Freer-Smith et al. 7). The same anthropogenic destruction can be detected in the novel. Logging is one of the dominant activities that can be seen prevailing in both Mexico and the Appalachian Mountains.. Landslides and floods are the two aftereffects that destruct the existence of the organisms in the universe. The fact can be inferred from the statement that Dellarobia makes: “They had clear-cut the mountainside above the town, and that was said to have caused the mudslide and floods when a hard rain came” (Kingsolver 189). Thus, the climate change experienced in both regions can be related to the avaricious assertiveness of egocentric human beings.

Logging is one of the grave issues that perturb the wholesome existence of the environment. It enacts a vital role in precipitating the earth to lose its equilibrium and leaving everything in utter disorder. It intensifies the extremity of climate change via various forms, such as soil erosion, landslide, and animal extinction. Most of the male characters in the novel support deforestation, and they estimate it as an effortless strategy to accumulate wealth with little toil. Bear Turnbow and Mr Norwood sign a contract with a private party to cut down the trees to obtain wealth for reimbursing their debts. They perceive natural objects as simply materialistic, which can be used for their own egoistical needs neglecting their inner worth. Most of the natural calamities such as heavy rainfall, landslide, and soil erosion that take place in the novel are the aftereffects of this mental assertiveness. The mindset of the selfish human beings to manifest nature merely as an entity to provide for them contributes to this despairing situation and adds to the miseries of humans as well.

The anthropocentric perspective of human beings will lead to the destruction of the entire ecosystem: “Humans may, of course, interfere with a plant’s or the planet’s, ability to continue performing its duty. Given the reciprocity of relations, however, when country is treated improperly and desecrated, the natural world becomes unbalanced and all within it are affected” (Jamieson 11). The repercussions of logging are well conveyed through the words of Dellarobia while she converses with Cub to stop his father from the disastrous act of logging. Dellarobia surmises the mountain has become “a trash pile. Nothing but mud and splinters” (Kingsolver 54). Each time she travels to the grocery shop, she notices the mountain in an entirely destructed state. Landslide is occurring all over the mountain and it looks like somebody has blown the bomb there. The area

experiences heavy rainfall in winter, along with humid climatic conditions. The heavy rain intensifies the amount of landside and the roads also turn into a danger zone for all those who are travelling there.

Many ecologists consider it as the obligation of human beings to protect the universe from various annihilations and destructions that occur on the planet. Callicott et al. argue about the climate change expectation of an ethical concern from the parts of the human beings. “It not only challenges people to act in a morally responsible way but it also challenges the very idea of moral responsibility” (459). Dellarobia considers the protection of the environment as her moral concern by attempting to identify the reason behind it and taking valuable measures to counter the same. In *Dark Green Religion*, Bron Taylor discusses the two streams of dark green religion that flowed from Thoreau- “the first involves a bioregional impulse, the quest to return to and commune and live in harmony with nature in a particular ecoregion. The second involves an activist impulse, whose chief moral priority is to engage in political action to prevent the desecration of nature” (58). Dellarobia can be connected to the second stream of dark green religion. She takes great effort to enlighten her family members and society on climate change. She also openly protests against the atrocious logging projects undertaken by her husband and father-in-law. She even talks against a corporate named the Money Tree industry, which takes great initiatives in deforestation and induces the earth to lose its balance.

The people who are organically united to nature, specifically the biologists take great initiatives to retrieve the planet from the clutches of climate change. In *Sense of Place and Sense of Planet*, Ursula K. Heise expresses the evolution of a group of

scientists or environmentalists who pay much attention to the aftereffects of climate change that are occurring in their surroundings:

While issues such as population growth, chemical pollution, nuclear contamination, and looming resource shortages dominated the environmental imagination of the global in the 1960s and 1970s, a new concern began to reshape it in the late 1980s. Initially called the “greenhouse effect,” the gradual warming of the earth’s atmosphere due to emissions of heat-trapping gases later came to be referred to as “global warming” or “climate change.” Scientists and environmentalists have sometimes worried that “global warming.” Perhaps the most straightforward of the three phases does not sound risky enough to who associate heat with pleasant summers on the beach, and obscures the fact that some regions might actually experience more rainfall or lower temperatures.

(205)

Most of the novels on climate change incorporate a character with a scientific cult, who maintains a greater perception of various endeavours in the universe and institutes an ardent effort to defend the planet from the crisis. “Scientists play a fundamental role, developing the meaning of climate change while helping to frame questions about both knowledge and the novel as a formal entity” (Trexler 31). The character, Ovid Byron, can be perceived as the finest example of a scientist who seeks to salvage the position of the earth and vindicates the right of all organisms to a vigorous existence. Ovid Byron is too much apprehensive about the vigorous existence of the monarch butterflies and he accepts various measures to make the survival of the butterflies a reality. He perceives the migration of the monarch butterflies as a global issue and dedicates his time in

studying the reasons behind it. He takes a long journey to inspect the Appalachian Mountains and acknowledges the issue as a global one that disturbs the existence of all organisms- both human and non-human. He states about the migration: “it’s like if we got persuaded to come out here for some reason and live among the sheep. We still couldn’t eat grass. And we wouldn’t have baby sheep, we’d have babies, and they’d be in trouble with the freezing rain and the coyotes” (Kingsolver 360). Ovid Byron’s remark acknowledges the concern of scientists on climate change. He contemplates climate change as a global one and if its effect is not seen in human beings, it does not mean that it will not disturb them. Animals are also part of the ecosystem and the impact that is displayed on them will have a reflection on the lives of human beings, as the ecosystem is constructed as an interconnected one.

Climate change’s impact gets manifested in diverse forms in distinct ecological regions. Adam Trexler in his *Anthropocene Fictions* states, “climate change’s real effects are more distributed: desertification, contamination of freshwater, fiercer tornadoes, extinctions, destroyed mangrove barriers, crop failures, and so on” (170). The traces of destruction are reverberated in the surroundings where Dellarobia lives- the yard in her home is adorned with plastic toys and straggling grass. The land lacks any qualities of fertility and any fruitful plants or trees are hardly seen in the yard and the area witnesses soil erosion. It is the plan of her father-in-law, Bear Turnbow, to bulldoze the land for constructing the house instigates such destruction.

The disappointing culture of commodification reigns over the nature of the Appalachian region. The environment suffers from the destruction of many forms. People appreciate everything conferring to its monetary value, rejecting its inborn worth or the

power to balance the entire ecosystem. Bron Taylor discusses the consequences of globalization in *Dark Green Religion* and states:

The globalization process itself was said to destroy traditional and sustainable agroecosystems. This involved, in essence, an increasing and sacrilegious commodification of life,... which in turn depended on the theft of intellectual property from indigenous people and the destruction (if not theft) of their lands.

According to this declensionist narrative, globalization- fueled by corporate greed and power and a corresponding erosion of democracy- thus destroyed both biological and cultural diversity. (Taylor 184)

An organization named Money Tree Industries is operating in the country that extends huge amounts of money to their clients by endorsing a contract with them for cutting down the trees on their property. The organization can be observed as the principal agent for generating an imbalance in the environment by shattering the trees that play a significant role in perpetuating biodiversity and preserving the equilibrium of nature. Bear Turnbow and Peanut Norwood sign a contract with the organization to clear-cut the mountain. The organization lacks any moral dimensions and they initiate various tenders for clear-cutting the mountains and forests with little consideration for them. The organization supplies wood or other materials from the mountain across the world for even silly matters, like producing toilet papers for city folks.

Callicott and Frodeman state that the consequences of climate change are so outrageous that it emerges at least expected times. They deliberate the aftereffects of carbon dioxide emission and state that “once carbon dioxide is emitted, it remains in the atmosphere for centuries, and other greenhouse gases (GHGs) can remain in the

atmosphere for millennia. Because GHGs have such long residency times in the atmosphere, their effects on climate extend far into the future” (459). Natural disasters play a substantial role in relocating and altering the face and inhabitants of a region. Kate Rigby expresses the same view in *Dancing with Disasters* and states that people’s interpretation of natural calamities varies corresponding to their cultural differences. They consider natural calamities “as a response to human wrongdoing on the part of God, or the gods, or an indwelling power inherent in the sacred order of things. In this hermeneutic horizon, morality and materiality, and social relations and natural phenomena, were understood to be interrelated” (Rigby 3). The incidents that take place in Mexico can be perceived as the aftereffects of the egotistic cravings of human beings. The degenerated condition of the country is reiterated through the words spoken by Josefina, Preston’s classmate, who visits the Turnbow family with a desire to observe the butterflies on the mountain. The girl and her family are from a recently migrated population of Mexico. The girl’s description of her home country divulges that the actual migratory route of the Monarch butterflies is in Mexico. Some natural calamities that occur in the region compel the Monarchs to search for an alternate migratory route and the search leads them to the Turnbow property. “Climate change will affect everyone, but the people who will suffer most are those who have done the least to bring it about. Poor countries will suffer more from climate change than will rich countries, just as they suffer more from climate variability and extreme events” (Callicott et al. 459). It is the innocent people and organisms in Mexico that suffer more than the destroyers who cause such a disaster. It is clear from the accounts of the girl that some unscrupulous developmental activities in the area have boosted to the demolition of the Monarch’s habitat. The phrase

“Everything is gone!” (Kingsolver 139) reveals the destructed state of the place. The unauthorized logging and bulldozing of the region instigates a terrible landslide and soil erosion in the surroundings. The incident causes an imbalance and the natural calamities sweep everything, including the mountain, the people, the building, and, of course, the Monarch butterflies.

Many of the disasters transpiring in the environment can be linked to natural and man-made causes. Human beings are responsible for such events and such disasters have now become reciprocal, unable to decipher their boundaries. Axel Goodbody in *Nature, Technology and Cultural Change in Twentieth-Century German Literature* postulates human beings as solely responsible for all the natural disasters taking place in the environment. He argues:

In recent years, the boundaries between such man-made disasters and other natural catastrophes have become increasingly blurred, with growing acceptance that we are involved in exacerbating certain meteorological phenomena. We have also come to recognize that circumstances under our control contribute significantly to the disastrous impact of natural events: the deaths and suffering resulting from earthquakes, volcanoes, tsunamis, and hurricanes are often a consequence of warnings that have been ignored and inadequate preparation. Both kinds of disasters are commonly related to risks that were at least partially known previously. The result is not only from chance and human error, but also from strategic economic decisions. (87-88)

A comparison between a sacred world that is uninterrupted by the profit-loving human beings and the one that is tormented by these greedy individuals can be deduced from the

description made by Pete: “the two different streams merged, one yellowish and silty from the road cut, the other one clear, from the forested side, the dark and light waters running parallel for several yards before they blended” (Kingsolver 190). The colours of these waters suggest the one pure and the other devastated magnificence of nature. The region, which is a victim of the logging industry, is suffering from dangerous environmental calamities like soil erosion and that brings a change in the texture of the water that flows there. Whereas, the water in the pristine region of the forest appears flawless.

The unethical use of harmful pesticides and other chemical fertilizers are instrumental in bringing much imbalance in the environment. The pesticides filled with fatal chemicals disturb the existence of various tiny organisms in the universe along with the human species. Excessive use of noxious pesticides precipitates the extinction of numerous flora and fauna. It also creates a negative effect by extinguishing a particular species of plant or animal from the face of the planet. Alexander E. Gates and Robert P. Blauvelt deliberate the aftereffects of using dangerous compounds on the soil and the pollution created by them:

These pollutants are pesticides, herbicides, and fertilizers and are probably the most damaging of all pollutants to the environment. Most are very soluble and can be readily leached into the groundwater system and are found in drinking water supplies throughout the country. Some may be adsorbed to clay or organic particles and remain mixed. These are the most persistent of the organic compounds. Some pesticides are so potent that they are even toxic to the microorganisms in the soil. (664-65)

Dellarobia's discussion with Tina reveals the improbable effects of the use of inorganic pesticides in her neighbourhood. She states: "Their little boy came down with cancer, and it got them kind of born-again about using chemicals... They lost their whole tomato crop. And they put in that peach orchard, which is dying" (281). The incidents can be connected to the aftereffects of soil pollution. Both humans and non-humans suffer from the effects of chemical pesticides and other fertilizers. The harmful pesticides also disturb the fertility of the soil and lead to the extinction of the flora there. "There have been examples in the past of soil mismanagement that threatened to restrict productivity such as the dust bowl of the American Midwest as well as numerous cases of desertification around the world" (Gates et al. 665). Thus, climate change issues discussed in the novel can be recognized highly anthropogenic, caused by the materialistic and egocentric outlook of human beings.

Margaret Atwood's *The Year of the Flood* furnishes a better illustration of the ecological crisis experienced by the entire world because of the fatal destruction done to the entire universe. It can be interpreted from the novel how the happy and serene atmosphere in the universe gets reconstructed into an uglier and more fearsome place, where everyone constantly dreads the impending natural calamities. "Atwood describes a world where hierarchical, corporate capitalism and biotechnologies allow the unprecedented exploitation of human bodies. The world population is decimated by a virus engineered in the centre of the corporate machine, and a new race of posthumans is positioned to live more sustainably" (Trexler 196). The novel expresses the complete devastation of the natural order provoked by the anthropocentric attitude of the human population.

Then novel has an uneventful beginning with a description of a garden that once symbolized heaven and at present has been transformed into a mere skeleton, devoid of any elegance and adornment. The garden has been once a place of shelter for many kinds of birds and animals and even human beings used to call on the place to find some solace. The transformed condition of the garden generates misery in all the creatures and their life undergo a complete transformation- the birds stop their joyful song and the beauty of the garden gets buried with the sand. The description of the environment after the Great Flood vividly depicts the transformed condition of the new atmosphere. The enchanting smell of the old nature gets replaced by the smell of destruction:

As the first heat hits, mist rises from among the swath of trees between her and the derelict city. The air smells faintly of burning, a smell of caramel and tar and rancid barbecues, and the ashy but greasy smell of a garbage- dump fire after it's been raining. The abandoned towers in the distance are like the coral of an ancient reef- bleached and colourless, devoid of life. (Atwood 9)

The lines portray the transformed condition of the environment after the Great Flood. The world appears devoid of any life. The city is in an entirely dilapidated state with various stanches of destruction. The ecological disaster that the novel deals with is the extinction of all organisms in the universe. Callicott et al. in *An Encyclopedia of Environmental Ethics and Philosophy* confer various reasons for the extinction of different organisms. They state two factors- “the natural and the human caused” are solely responsible for this disaster (417). “The source of these extinctions ranged from volcanic activity, asteroid collisions, sea-level changes related to glaciation, chemical alterations of the oceans and atmosphere, and other such global natural phenomena... however, human activities have

gradually superseded natural phenomena as the prime movers of extinction” (417). They further elaborate on the destruction of organisms and degradation of landscapes triggered by the human species and how it intimidates the habitat of organisms driving them to extinction. They also attribute “global climate change, the overexploitation of species for human use, the invasion of exotic species, and the increased spread of disease” as the actual causes of ecological crisis in the present time (141). All these events stand as the genuine cause of the extinction of species in the world depicted in the novel.

The beginning hymn clearly states how the avarice of self-centred individuals reconstructs the universe from heaven to hell. The hymn depicts a deteriorated garden, which was once flourished with an abundance of plants and other species. Here the garden embodies the entire world and all the organisms lived in utmost harmony with each other in the serene ambience of the garden and it assisted them to sustain the equilibrium of the entire world. The acquisitiveness of selfish human beings is responsible for the transformed condition of the garden. The fact is well expressed through the lines of the hymn:

But then came the greedy Spoilers.
And killed them all away.
And all the Trees that flourished
And gave us wholesome fruit,
By waves of sand are buried,
Both leaf and branch and root. (Atwood 1)

The lines portray human beings' greed as the sole reason for the destruction of the ecosystem. Human beings play a crucial role in altering the face of the earth and instigating it to lose its balance.

Different industrial and trade practices of human beings are responsible for the extinction of certain organisms on earth upsetting their biodiversity. Crist et al. in *Gaia in Turmoil: Climate Change, Biodepletion, and Earth Ethics in an Age of Crisis* argue: "the most recent mass extinction is happening now and is entirely due to the economic activities of modern industrial societies" (107). Endangered species trade is one of the ruthless means of profit that the greedy human beings participate in the novel. They accumulate huge profits through this illegitimate method and function as the torchbearers of animal extinction, digging their own tombs. Many instances of endangered species trade can be traced from the novel. An agency named 'Slink' is deriving huge profits through illegal trades:

There was an endangered-species luxury couture operation called Slink. They sold Halloween costumes over the counter to fool the animal-righter extremists and cured the skins in the backrooms. The fumes came up through the ventilation system: though Toby tried stuffing pillows into the vent, her cubicle stank of chemicals and rancid fat. Sometimes there was roaring and bleating as well.

(Atwood 37)

They utilize both domestic and wild animals for cosmetic purposes and generate a large scale extinction of these animals. The activity is performed secretly, hidden from public attention, but leaving so many traces of animal exploitation in its background. The

bleating, roaring, and stink of animal fat and chemicals point to the exploitation of animals to a large extent.

A web of these types of agencies is functioning at the basement level and the entire law system is in support of these malpractices. A restaurant named 'Rarity' is their regular customer and its name itself is derived from their practice of preparing foodstuffs using rare animals (Atwood 37). They accumulate a good amount of money in this way: "The profits were immense; one bottle of tiger-bone wine alone was worth a neckful of diamonds" (Atwood 137). The market value of extinct animals is so high and the profit loving human beings multiply these practices to accumulate economic progress.

Another kind of illegal trade practice that challenges the natural law is the 'SecretBurgers'. The customers are unaware of the meat those secret burgers are using: "The secret of 'SecretBurgers' was that no one knew what sort of animal protein was actually in them" (Atwood 40). There are rumors regarding the type of meat that these burgers are prepared. They even utilize human flesh for making those burgers: "you might find a swatch of cat fur in your burger or a fragment of mouse tail. Was there a human fingernail, once?" (Atwood 40). The 'SecretBurgers' also initiate many illegal activities with the support of the 'CorpSeCorpsMen'. They extend huge amounts of money as bribes to the 'CorpSeCorpsMen' and "the CorpSeCorps let the pleebmobs run the low-level kidnappings and assassinations, the skunkweed gro-ops, the crack labs and street-drug retailing, and the plank shops that were their stock-in-trade" (Atwood 40). The SecretBurgers gather their meat through various unlawful methods such as kidnapping and assassinations. They also undertake various activities such as disposal of dead bodies, gathering of organs for transplantation through illegal means, and the

grinding of skeletons through SecretBurgers grinders (Atwood 40). They illegally exploit dead bodies to prepare burgers and also to transplant various organs. The SecretBurgers represent the immoral corporates who play a principal role in generating ecological disasters through unscrupulous ways.

The 'CorpSeCorps' who rule over the land is the representation of the corrupt legal system that prevails in the contemporary society. The endangered species trade is declared illegal all over the country, but the 'CorpSeCorps' act completely blind against the practice. The traders are ready to offer higher amounts of bribes as the trade of endangered species makes them rich each day. The corruption that prevails in the contemporary society in the name of endangered species is echoed through the words "the endangered trade was illegal- there were high fines for it- but it was very lucrative. People in the neighbourhood knew about it, but they had their own worries... There were pockets within pockets, with a 'CorpSeCorps' hand in each one of them" (Atwood 137). Karen J. Warren speaks of a misguided society managed by the profit loving corporate in *Ecofeminism: Women, Culture, Nature*: "Multinational corporations use rhetoric to convince indigenous people to sell their rights to their own natural resources, without informing these people that the next generation will have no natural resources with which to develop and use their skills. The rhetoric emphasizes participation in the free market but fails to recognize the possibility" (400). The corporates take great effort in causing a scarcity in the animal and human species. A large population is aware of this, but they are afraid to raise their voice against the corporates and the legal authorities.

Another kind of trade practice that is fashioned against the law of nature is the "Mo'Hair" sheep breeders. The corporates grow diverse breeds of sheep for wool, and

then that hair is transplanted to human beings (Atwood 38). The society depicted in the novel exercises all kinds of immoral practices. Egg donation is one of the most unethical practices that derive plenty of money for the corporate. Toby is a victim of egg donation and it precipitates danger to her future. Toby donates her eggs twice, and she develops a kind of infection from the extraction needle. It is the third time that she realizes that she has turned sterile from the vulnerable ways of donating eggs (Atwood 38). It kills her hope in her future and turns her furthermore disappointed. The egg donation questions the natural law of reproduction in the ecosystem. The corporates play a vital role in making a woman sterile and altering the laws of nature.

The corporates perform a decisive role in annihilating the natural habitat of organisms and thus create imbalances in the ecosystem. They harm the wild creatures and their habitats for construction activities and leave their habitat in a fragmented state. Eileen Crist et al. in *Gaia in Turmoil: Climate Change, Biodepletion, and Earth Ethics in An Age of Crisis* discuss the destruction of the natural habitats by the corporate and how the fragmentation affects the biodiversity on the planet. Crist et al. state:

When humans attack the great wild, they generally leave a few fragments of the original habitat here and there... Each fragment is an island, often surrounded by inhospitable habitats such as agricultural land, buildings, and roads that for many creatures create insurmountable barriers to foraging, dispersal, and colonization—even a small road in a nature reserve can be a daunting obstacle to tiny insects.

(110)

Such devastation of natural habitat and an event of fragmentation is conspicuous in the novel when a corporate purchases Toby's house and other properties for the construction

of buildings. Toby's house is in an area packed with biodiversity. Many varieties of rabbits, deer, and other organisms are seen in the surroundings. Regardless of his love for nature, out of poverty and debt, Toby's father is forced to sell the property to the materialistic corporate. The corporate destroys the landscape for construction and damages different habitats, adding to the reduction of biodiversity in the ecosystem. The deforestation in the area plays a decisive role in inviting climate change in the region.

Globalization is a phenomenon which has emerged around two decades ago and it has brought about a change in the critical realm of individuals from the aesthetic or instrumental value of things to the economic or political advancements. Along with the advancements in science and technology, the economic system of the entire world transformed into a more capitalist regime, where the ultimate goal lies in deriving maximum profit irrespective of giving due consideration to the moral or ethical aspects of various organisms that exist in the universe. The trend has led to the advancement of a society that is purely consumerist and nurtures capitalism. Ken Wilber points out "the fractured world view" as the cause of present ecological disasters. He defines a fractured worldview as:

A worldview that drastically separates mind and body, subject and object, culture and nature, thoughts and things, values and facts, spirit and matter, human and nonhuman; a worldview that is dualistic, mechanistic, atomistic, anthropocentric, and pathologically hierarchical- a worldview that, in short, erroneously separates humans from, and often unnecessarily elevates humans above, the rest of the fabric of reality, a broken worldview that alienates men and women from the

intricate web of patterns and relationships that constitute the very nature of life and Earth and cosmos. (12)

Toby's mother can be considered a victim of this fractured worldview. She becomes prey to the greed of some corporates. She has been running a 'HelthWyzer' franchise and has been a regular customer of the vitamin supplements sold there. She gets affected by some mysterious diseases through the regular consumption of those toxic medicines:

Toby's mother came down with a strange illness. She couldn't understand it, because she'd always been so careful about her health: she worked out, she ate a lot of vegetables, she took a dose of HelthWyzer Hi-Potency VitalVite supplements daily. Franchise operators like her got a deal on the supplements-their own customized package, just like the ones for the higher-ups at HelthWyzer. (Atwood 31)

The strategy of the corporate by administering such a 'HelthWyzer' franchise is to create regular customers for their newly invented medicines. These corporations simply select the poor and innocent human beings for testing their newly developed medicines which later contribute to the loss of their lives. They intend to spread several diseases through these medicines and find a market for medicines to cure such diseases. "All they did was poke at your tongue and give you a few germs and viruses you didn't already have, and send you home" (Atwood 31). Those who are regular customers of these medicines help the corporate to accumulate huge profits and they solely depend on the corporate for their further treatments and recovery. Usually, the ways which are opposed to the ways of nature are employed and the regular victims belong to the category of innocent animals

and poor people. All the legal authorities, scientists, and doctors are in tie-up with the corporate and they support them to make the selling of their products very smooth.

The 'HelthWyzer' supplements represent two aspects of chemicals- medicinal and poisonous. The medicines supplied by the corporates offer remedies for all human illnesses. It stands as a threat to human existence, too. Ursula K. Heise, in her *Sense of Place and Sense of Planet*, discusses the toxic and medicinal aspects of chemicals and states:

The dual nature of chemicals as toxins and medicines and the attendant fascination with altered physical and psychological states of various kinds have been a recurrent issue in American literature and culture of the last forty years. The American counterculture of the 1960s, more than its analogues in other regions, was fascinated with hallucinogenic drugs, with their ambivalent symbolic role as an instrument of liberation and a tool of addiction and subjugation... Mainstream medicinal culture with its concern to develop pharmaceutical remedies for all kinds of physical and psychological conditions, as well as the New Age counterculture's attempt to both counter and replicate this regime through allegedly "natural." "Herbal," and "detoxifying" remedies all bear witness to an enduring obsession to heal, alter, or improve the human body and mind by chemical means, as well as with persistent fears that such intervention might itself turn to poison. (161)

Toby's mother can be recognized as a victim of the subjugation of corporate remedies. She is addicted to the HelthWyzer vitamin supplement and finally, the poisonous aspect

of the medicine takes her life. Here chemicals are used for “the ecological destruction and the extinction of human beings” (Trexler 17).

The advancement of technology has assisted in creating various genetically modified plants and herbs, which has aided in improving the productivity and effectiveness of the crops. Whereas sometimes the scientific people are unsure of the outcome of this genetic crossing:

There are currently different agricultural biotechnology innovations on offer. Farmers have been changing the character of crop plants for millennia, by selectively retaining advantageous mutations and by deliberately crossing plants with desirable characteristics. More radical steps have also been taken to promote mutations, through for example, subjecting plants to severe chemical treatments or exposing them to radiation. These interventions were unpredictable and thus the plant breeders still had to wait to see what the character of the mutations might be. The biotechnology industry presents its activities as only an enhancement of such time-honoured procedures with the added benefit that the changes are not random and can be - approximately- anticipated in advance. (Yearley 161)

A community named God’s Gardeners stands in extreme opposition to this scientifically advanced corporate and they try to cure various diseases through natural ways. They can be considered the followers of the ecospiritual cult. They are well educated in various natural remedies for illness and medicine preparation. They condemn the use of pesticides for plants and other chemicals for curing both human and non-human diseases. They consider honey and other natural herbs as treasures of nature that should be kept

sacred. They are totally against the use of pesticides and other fertilizers for better yielding. They follow organic ways of farming and promote various eco-friendly techniques, such as recycling and reusing. They are opposed to the use of plastic and other artificial fibres for manufacturing objects. They use biodegradable materials for constructing their houses and stitching their clothes. The gardeners can be considered a community that questions the current ecological disasters that transpire in the universe. They adopt various measures to eradicate these disasters.

‘Behavioural ecology’ is concerned with the change that occurred in the mental outlook of people regarding their approach to nature and its organisms. Kennett and Winterbalder in their *Behavioral Ecology* trace the development of a particular positive transformation that emerged in the attitude of some nature loving individuals: “the evolutionary transition from societies relying predominantly on hunting and gathering to those dependent on food production through plant cultivation, animal husbandry, and the use of domesticated species embedded in systems of agriculture” (1). The gardeners can be recognized as a pure example of this transformation. The gardeners are true lovers of nature who consider agriculture a sublime act and they cultivate their food, crops and vegetables. They avoid eating non-vegetarian food and encourage horticulture and apiculture, which stimulates the growth of many tiny organisms.

Science plays a vital role in helping human beings to take monumental steps toward the progress of the entire universe. Science instills the spirit of environmentalism among the entire civilization and helps to plan various policies based on the current trends in the natural world. It instructs the public on various issues like soil erosion, resource scarcity, various forms of pollution, and the threats that human beings have to

suffer if they cannot maintain an equilibrium between their selfish needs and the protection of nature. But various forces that developed as part of scientific thought, like technological advancement, industrialization, and urbanization have paved the way for the degradation of the entire environment. James Lovelock speaks of the aftereffects of technology in *Gaia: A New Look at Life on Earth*: “it may be that the white-hot rash of our technology will, in the end, prove destructive and painful for our own species, but the evidence for accepting that industrial activities either at their present level or in the immediate future may endanger the life of Gaia as a whole” (100-101). Here, Lovelock warns the world population of the dangers that an imbalanced technology can cause.

The spirit of reason is one of the significant development with the expansion of scientific knowledge. Human beings questioned the unknown facts, and it led to the opening up of new knowledge and a window of possibilities in front of them. Technology also plays an indecisive role in facilitating the rhythm of the entire universe. Even though the spirit of reason and inquiry serve human beings to acquire undiscovered knowledge and make them more innovative, it has some greater setbacks on the spiritual, moral, and social life of the individuals. It acts as a threat to the existence of all organisms, including human beings, and paves the way for the occurrence of all the undesirable things.

The Year of the Flood presents how the inability to sustain a balance between science and nature prompts the destruction of the entire ecosystem. The speech that Adam One delivers on Creation Day reflects the conflict that prevails between science and religion. Science traces the creation of the world to the Big Bang theory whereas the Gardeners trust in the role of the divine in creating the universe and the existence of divinity in all creations: “God laid the foundations of the Earth by interposing his own

Spirit between one blob of matter and another, thus giving rise to forms” (Atwood 41). Science considers atoms and molecules as the building blocks of all organisms, whereas the gardeners believe God created man from pure dust, which is much closer to nature. This expresses the conflict that prevails between science and nature.

Along with science, technology also acted as a medium in the destruction of the environment. Even though technology has facilitated a lot in the refinement and progress of all generations; technology and nature are considered as things that stand in two different realms. In the opinion of Lynn white Jr, “scientific knowledge means technological power over nature” (White 4). He opines that modern technological advancements are in a way stand as enemies to environmental protection. Technology is a human creation that has facilitated them to reach higher levels of advancements and, like any form of human creation, it can preserve or suppress the natural environment.

In *The Year of the Flood*, the advancement of technology supplies a lot to challenging the laws of nature and creating complete disorders in the entire ecosystem. The bioengineers in this novel are so busy creating a new species named ‘liobam’ consolidating the characteristics of both lion and sheep. By creating this species, they want to establish an amicable relationship between the two animals that stand in extreme opposites in their way of living and physical features. By performing such anti-natural tasks, the bioengineers become a threat to the web of life disturbing the food chain and the interdependence between various organisms. They also supply to the extinction of organisms by performing such immoral practices. Clearley talks of the same aftereffects:

In developmental work on gene transfer... technologists had wanted an easy way to check whether genetic material had been correctly incorporated. Since the

characteristics they had introduced would only be displayed once the organism had matured, they sought a means of establishing sooner whether the gene had ‘taken’. Accordingly, a segment of genetic material which gave rise to antibiotic resistance was inserted alongside the other transferred genes as a marker. The new material could be checked for antibiotic resistance early on and if that resistance existed it was safe to assume that both the marker and the desired gene were in place. In the haste to get these GM products onto the market, the antibiotic-resistant gene was not taken out. (164)

These newly developed species may come as a threat to the entire ecosystem, affecting the interdependence and interactions that take place between various organisms in the ecosystem.

Nature has a regenerative power that helps it to acquire a balance in the environment. Sometimes nature adopts some destructive ways to gain its balance. Timothy Clark in his *The Oxford Handbook of Ecocriticism* discusses the ability of nature to reestablish its position through some destructive ways: “Fully equipped with destructive devices, nature emerges as a combative agent, a vengeful creature who has it in for humanity. Hence one story is substituted for another: the story of nature -as-victim makes place for an apocalyptic narrative of nature as a dangerous threat” (509). Nature has the strength to get accommodated to even minute changes in the atmosphere. Some ecologists contend that the level of change of nature collapse at some points and eventually leads to destruction, leaving the entire world in a dilemma. Simon Levin discusses such a catastrophe in his *Fragile Dominion: Complexity and the Commons*. He argues:

Ecosystems have evolved some degree of resiliency in the face of environmental change, but what resiliency exists has emerged from selection acting on the components of the system, not from forces acting at the level of the entire ecosystem. There are no guarantees, and the potential for disaster is real, as exemplified by the desertification of previously productive areas, global pandemics of disease, and the collapse of marine fisheries. (195)

A mass exile of the entire population dwelling in the cities can be inferred from the novel. The world portrayed in the novel is haunted by the pandemic in some forms. The entire population is in fear of the outbreak of a waterless flood or some diseases among them. They constantly fear contact with other people. Some people in the novel possess a helping mentality. Whereas the fear of disease keeps them away from helping others. Toby can be considered the best illustration of this attitude. Toby has genuine sympathy for her fellow creatures, but she fails in helping them. Her helplessness can be best illustrated through the words, “some of those people had called for help as if they’d known she was there. But how could she have helped?” (Atwood 5).

The pandemic described in the novel has some similarities with the Coronavirus (COVID-19) which has shaken the entire world throughout the year 2020 and has its impact till date. The virulent disease was quite intimidating and created the feelings of insecurity among the world population in their mental, physical, economic, and social realms. Corona is an airborne disease that has the power to take the life of multitudes of people and has caused the death of multitudes of the population in the entire world. The disease can be prevented by wearing masks, maintaining social distance, and keeping personal hygiene, like washing hands regularly. The outbreak of the same type of disease

can be traced in the novel. There is a kind of horror in the entire population and they are in constant fear of getting affected by this disease. Many similarities between the pandemic situation in the novel and the coronavirus can be traced from the description given by Margaret Atwood:

This was not an ordinary pandemic: it wouldn't be contained after a few hundred thousand deaths, then obliterated with biotools and bleach. This was the Waterless Flood the Gardeners so often had warned about. It had all the signs: it travelled through the air as if on wings, it burned through cities like fire, spreading germ-ridden mobs, terror, and butchery. The lights were going out everywhere, the news was sporadic: systems were failing as their keepers died. It looked like a total breakdown,... The trip would be dangerous. She'd have to walk to her old plebe- no transport would be functioning. (Atwood 24)

The description gives a similar pandemic experience like the Coronavirus that led to the death of thousands of people. The disease gets transmitted through the air and various activities like sanitization can be traced from the description. A lockdown situation where the breakdown of the entire system, like transportation and law and order, can be drawn. The year twenty mentioned in the novel can also be related to the year 2020.

The atmosphere prevailing in the novel resembles a lockdown situation and the scarcity of sufficient food materials is prominent there. Like people gather food materials before a pandemic situation, the gardeners prepare their own 'Ararats' with basic food materials. It is those food materials that save Toby's life in the pandemic situation. Before she senses she is running out of food stock, she feels a little relieved as she finds that everything in her vegetable garden is in a good condition:

Her supplies in the storeroom are getting low. Over the years she'd stashed what she thought would be enough for an emergency like this, but she'd underestimated, and now she's running out of soybits and soydines. Luckily, everything in the garden is doing well: the chickenpeas have begun to pod, the beananas are in flower, the polyberry bushes are covered with small brown nubbins of different shapes and sizes. (Atwood 18)

The population in the city is anxious about the transmission of the disease and they believe that life in the countryside can shield them from the disease. Many symptoms of the disease can be traced to the inhabitants of the city: "People were hurrying past, singly and in groups, trying to get out of the city, hoping to make their way through the pleebland sprawl and seek out refuge in the countryside. There was coughing, a child's wail" (Atwood 25). The absence of a regular law and order can be outlined in the environment. The keepers of the law, the 'CorpSeCorpsMen' have flown from the city to salvage themselves from the fatal disease. Toby believes they carry "the lethal virus with them" (Atwood 25). Toby takes many precautionary measures to protect her from the disease. The precautionary measures taken by Toby have some similarities with the one that is taken by the population of the Covid-19 scenario: "The side streets were awash with people; she dodged to avoid them. She'd worn surgical gloves,... a black nose-cone air filter" (Atwood 26). She uses disease symptoms as a way of escape from the robbers: "Two teenagers paused as if to try a mugging, but she began coughing and croaked out, "Help me!" and they scurried away" (Atwood 27).

Nature returns all the annihilations that human beings deliberately impose upon it. It adopts various destructive methods, such as natural calamities like floods, storms,

volcanic eruptions, and earthquakes to rebalance itself. Disease and climate change are also considered as other ways for nature to regain its balance. Thus, the novel can be considered the best illustration of how anthropocentric attitudes of human beings generate the wrath of nature, and finally, it leads to their devastation and the destruction of the entire ecosystem.

Skinny Dip by Carl Hiaasen portrays various destructions by human beings to nature, both intentionally and ignorantly for material and egoistic gains. Most of the characters in the novel are after monetary reimbursements, irrespective of acknowledging the inner worth of nature around them. A lot of murders occur in the novel, of which the murder or destruction of the Florida Everglades is the one that requires much attention. A lot of exploitations take place in the plot, including the suppressions done to the wild things, water bodies, aquatic animals, and even human beings.

The character, Chaz Perrone in the novel stands as the prime destroyer of nature. It is Chaz's interest in environmental protection that attracts Joey to him. At the time of their first meeting, Chaz introduces himself as a biologist who has come to the Everglades to attend a convention of chosen scientists for protecting the Florida Everglades. The environmental lover in Chaz is merely a mask; actually, he is inattentive to the large-scale destruction that is taking place in the Everglades: "For a scientist, Chaz seemed dishearteningly blithe, self-centred and materialistic. He rarely spoke of his work in the Everglades, and he seemed unfazed by the rape of the planet. He displayed no anger about the push for oil drilling in an Alaskan wildlife refuge" (Hiaasen 34). Chaz can be considered a pseudo scientist who has a less concern for the ecosystem and he observes nature simply as an object of material benefits.

Chaz is a scientist who has been conferred a doctorate in biology. The irony is that his topic of concentration is wetlands ecology and he applies the same knowledge to damage one of the largest wetlands in the world that is the Florida Everglades. Chaz's intention is highly materialistic, and he supports the progressive destroyers in their attempt to contaminate the Everglades. He expects a huge compensation in return for the cruel act of disregarding the life of the planet. By destroying the Everglades, Chaz questions the equilibrium of nature and transforms the chemical composition of the atmosphere. James Lovelock in *Gaia: A New Look at Life on Earth* discusses the role of landscape in maintaining the gaseous level in the atmosphere. Lovelock states the microorganisms control the carbon level in the atmosphere "in co-operation with the aerobic decomposers of the soil and the sea-bed, together with the anaerobic microflora in the great mud zones of the continental shelves, sea bottom, marshes, and wetlands" (106). Being a scientist, Chaz is knowledgeable of this phenomenon and he deliberately threatens the equilibrium of nature for material benefits.

The materialistic and profit oriented corporate devoid of any ethical or moral concerns can be best illustrated with a cosmetic manufacturer, where Chaz works to assess the poisonous level and harmful contents of their perfumes. The company chooses a person who is not qualified to examine the contents of the cosmetics. "The firm merely needed a presentable face on staff- what serious biologists scornfully refer to as a "biostitute"- who would dutifully attest that its perfume products contained only negligible levels of toxins, acetones, and carcinogens" (Hiaasen 67). Chaz is a post-graduate in marine biology. The company just wants to choose a handsome young man as their staff to attract the attention of young girls to their product. Chaz comments nothing

about the ill effects of the cosmetics. Chaz is provided with a group of hundred mice in a laboratory to verify their product. Most of the mice leave deformed and disabled, leading to a slow death. Chaz's only target is to derive maximum earnings by gratifying the corporate by hiding the toxic nature of their products. Usually animals and poor and helpless people stand as the victim of corporate cruelties. The mice can be considered a "victim to human predatory behaviour" (Garrard 341).

Even if Chaz is a post-graduate in marine biology, he keeps less affinity for aquatic organisms. He even deliberates on extinguishing some creatures that hurt him. Chaz's irreverence to tiny creatures is well echoed while he assists a doctoral fellow studying ocean louse: "He stiffly informed his faculty supervisor that the only sensible purpose for studying sea lice, was to isolate a toxin that would wipe them off the face of the earth" (Hiaasen 66). Irrespective of being a marine biologist who has the responsibility to protect various tiny organisms, Chaz appears to be a cruel and unpleasant person who has a less concern for fellow organisms.

The profit lover in Chaz is revealed well while he works for the project of 'Everglades Restoration. He utilizes the materialistic aspect of nature: "fortune appeared to Chaz in a mystical burst of green light" (Hiaasen 68). He gets paid sixty-two thousand a year for his participation in the project. He threatens the healthy existence of different organisms in the Everglades and causes devastation to their lives. He illegally carries a rifle with him and intends to cause fatal damage to the turtles and alligators in the area. Instead of protecting the disappearing population, he plays a significant role in eliminating the same from the face of the universe. As a marine biologist, Chaz is aware of animal extinction and the vulnerabilities it may supply to the environment. He

possesses an excellent knowledge of the legal obligations of causing damage to an endangered species. On his visit to the Everglades, Chaz carelessly shoots the alligator, one of the endangered species. He informs Tool that “shooting a federally protected species was a crime punishable by heavy fines and prison time” (Hiaasen 228). Tool also supports Chaz in the extinction of biological diversity and recommends hiding the cruel act from the public by eating it. Tool suggests that “the evidence would be gone after supper” (Hiaasen 228). Both Chaz and Tool represent the population that deliberately generates animal extinction and leaves the ecosystem to lose its balance.

The novel can be recognized as a miniature version of a technologically advanced, scientifically educated, and economically well-built capitalist society ruled by the corporate, where the population is so hectic in advancing their daily life through various activities such as the purchase of body parts, consuming expensive health supplements and applying luxurious cosmetics. The developmental activities of these unethical corporate have supplied a lot to the extinction of various species from the face of the universe. They are even leading to the extinction of human beings through the marketing of vitamin supplements which they claim to be taken daily for the smooth functioning of human physiology.

Several incidents of conflicts between nature and technology can be detected from the novel. The protagonist Joey can be regarded as a person who severely suffers the consequence of technology. It is the technology that takes the life of her loved ones- her parents and her husband. Joey loses her parents in an aeroplane crash, while they transport their sick bear back home after consulting a veterinarian at Lake Tahoe (Hiaasen 30). In the case of her husband, “fate intervened in the form of a skydiver who

fell on Benny one sunny afternoon as he practiced fly casting in the backyard” (Hiaasen 32). By employing various technological advancements, human beings try to reach the height of every creation. But some kind of conflict between technology and nature is visible in this attempt. Sometimes, these attempts to win the world defeat humanity with unexpected disasters. Axel Goodbody in *Nature, Technology and Cultural Change in Twentieth-Century German Literature* states: “Shaking our faith in our ability to conquer nature with the aid of technology and reminding us of wider uncertainties inherent in the modern civilization of which we normally suppress awareness, they exemplify the continuing presence of risk and incursion of chance into a world which we had long since thought under our control” (87). The quote echoes the inability of technology to win the natural laws.

Chemical contamination is an important issue that can be mapped out in the novel. The profit loving scientist, Chaz, supports the contaminating activities of Hammernut’s farming. Red Hammernut uses an exorbitant amount of toxic pesticides to improve its harvest. “Red Hammernut’s farms were flushing so much fertilizer into the water that it was choking part of the Everglades to death” (Hiaasen 229). Ursula K. Heise considers Lawrence Buell’s notion of chemical contamination in her article “Toxic Bodies, Corporate Poisons” in *Sense of Place and Sense of Planet*. She argues that “chemical pollution is indeed a central issue for American environmentalism, at the same time that it functions as a crucial trope utilizing which writers and filmmakers explore the porous boundaries between body and environment, public and domestic space, and harmful and beneficial technologies” (161). In the case of chemical contaminations, technology stands as a threat to the ecosystem, as it plays a vital role in developing a

substance that causes danger to the ecosystem. The incident reflects the corporates' attempt to threaten the ecosystem for materialistic gain. Hammernut's farm generates an outrageous amount of contamination to the entire ecosystem by using hazardous pesticides to increase its harvest.

There is a close similarity between the geographical region in which a person lives and his personality. Mark Allister in *Refiguring the Map of Sorrow: Nature Writing and Autobiography* discusses the concepts "geography of the land" and the "geography of the spirit" (4). He claims that the geographical region that one lives in affects both positively and negatively a person's character. The fact can be illustrated by the characters of Mick Stranahan and Chaz Perrone. During his lifetime in the city, Mick Stranahan possesses an aggressive type of behaviour, later he lives on a solitary island, which is very close to nature. The calm atmosphere on the island promotes him to become a gentle person who retains sympathy for his fellow beings. Whereas Chaz Perrone is leading a city life and the crookedness and barrenness of the city life can be drawn from his character. He maintains less reverence for human beings and their fellow organisms. The same influence of geography can be found in Corbett Wheeler, who spends his time in New Zealand pastures along with his lambs. The gentleness of the lamb and the quietness of the pastoral region are reflected in his character. When he is away from the place, he feels much isolated and expresses his desire to return to New Zealand repeatedly. The fact can be linked to the "sense of place" that Dreese discusses in his *Ecocriticism: Creating Self and Place in Environmental and American Indian Literatures*. Dreese states: "All human beings develop their own sense of place through life that determines why they love certain regions or feel utterly alien in others. It is not

an uncommon human experience to long for the particularities of a certain place that have had a powerful interior effect on their human psyche” (1). Thus, the pollution and destruction that govern city life may be unbearable to those people who keep an affinity with nature. The fact exposes that the people who engage constantly with nature keep an abhorrence for city life and they strive hard to reinstate nature in their daily routine. Thus, the novels can be considered as illustrations of anthropocentric destructions to nature that incorporate themes of climate change, technological disturbance, extinction of species, and insatiable economic greed of egoistic human beings.