

RESOURCE EXPLOITATION AND ENVIRONMENTAL  
CRISIS: AN ETHICAL ANALYSIS



**By**

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## **DECLARATION**

I hereby declare that this thesis titled as “Resource Exploitation and Environmental Crisis:An Ethical Analysis” is a presentation of my own work composed by me for the M.phil. Degree ,under the supervision of Dr. Jasim Uddin, Professor, Department of Philosophy, University of Dhaka, Bangladesh. It has not been submitted, in whole or in part, anywhere for any higher degree except University of Dhaka.

I confirm that to the best of my knowledge, appropriate credit has been given within this thesis where reference has been made to the work of others.

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## **CERTIFICATE**

This is to certify that the thesis entitled “Resource Exploitation and Environmental Crisis: An Ethical Analysis”, submitted by Taslima Akter to the University of Dhaka is a bonafide record of the work done by her under my supervision. The contents of this thesis, in full or in parts, have not been submitted to any other Institute or University for the award of any degree or diploma.

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## **DEDICATION**

This thesis is dedicated to my family and my supervisor professor Dr. Jasim Uddin.

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## **ABSTRACT**

Scientists, ecologists, economists and environmentalists have presented a scenario that suggests not just the existence of humans, but the planet itself, is moving toward an uncertain future. One primary reason for this dire situation is the overexploitation of natural resources and ensuing environmental crises. Environmental ethics, a branch of applied philosophy, addresses contemporary environmental challenges such as deforestation, climate change, ozone layer depletion, loss of biodiversity, pollution, and overconsumption of natural resources. While science and technology play crucial roles in addressing these challenges, they are paradoxically contributors to the environmental issues stemming from overexploitation of resources. Hence, alongside experts from other domains, the perspectives and ideas of philosophers can offer valuable insights to policymakers and leaders.

There exists a gap between values and the practical implementation of these values. In this thesis, I encourage individuals to adopt an ethical lens when considering our planet Earth, emphasizing the importance of valuing nature and respecting all its inhabitants. Many are aware of what ought to be done, yet they act according to their desires, often in the face of known consequences. Influenced by consumerist advertisements, humans overexploit natural resources to satisfy their desires, neglecting the needs of non-human entities. It's indisputable that natural resources are vital for industrial production and economic growth. While resources are essential for our basic needs, they are finite and insufficient for the insatiable desires of humanity. Furthermore, the non-human components of our ecosystem rely heavily on these resources. Unsustainable consumption threatens the ecosystem, and by extension, our own survival.

Our existence owes much to our forebears. What we are today reflects the actions, values, morals, and beliefs of our ancestors. Just as we remember them, future generations will judge

us by our actions. Our deeds today will determine the esteem or disdain with which we are remembered. For a prosperous and fulfilling life, humans need a healthy environment and adequate resources. It's not only our responsibility to ensure a liveable planet for future generations but also their inherent right.

In this thesis, I delve into the circumstances, factors, and consequences of resource exploitation and environmental crises. I have scrutinized foundational ethical theories relevant to environmental concerns. Various environmentalists advocate distinct strategies for a sustainable planet, but their collective aim is humanity's continued existence on Earth. I touch upon modern strategies, highlighting the sustainable development approach. This approach emphasizes ethics and aims to achieve balanced economic, social, and environmental goals. It underscores the sustainable use of resources for both current and future generations, seeking harmony between intergenerational and intragenerational justice. I conclude with recommendations to further sustainable development goals, mitigate resource overexploitation, and address numerous environmental crises. I hope this thesis inspires more efficient resource utilization and fosters active engagement in environmental problem-solving.

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## Introduction

In today's rapidly advancing society, the unsustainable exploitation of resources has escalated into a global crisis. As we press on in our pursuit of development, the earth's health is in steady decline, turning our once-vibrant planet into a progressively damaged landscape. Alarming, this degradation is not a mere unforeseen by-product of human activity but a direct consequence of our incessant demands for growth. Despite the dire state of our environment, many are optimistic that our scientific and technological advancements will serve as a remedy for these ecological crises. This faith in technology as a universal solution is deeply rooted in our society. Paradoxically, it's this very belief that drives our reckless consumption of resources, as we persist in exploiting the earth under the presumption that technology will address the problems we create. The irony is palpable: the tools we turn to for solutions are also contributors to the problem. Our unyielding drive for innovation and development often intensifies the very issues we aim to mitigate, generating a cycle of destruction and attempted repair.

As challenges accumulate, it's imperative that we critically assess our trajectory and ponder whether our unrelenting pursuit of progress is genuinely advantageous or if it's merely sowing the seeds of our own downfall. We must recognize the influence our beliefs exert on our behaviours and perspectives towards resource exploitation and environmental preservation. Only by truly grasping the ramifications of our actions can we chart more sustainable courses.

In the early 1960s, American marine biologist, writer and conservationist Rachel Louise Carson(1907-1964) in her seminal work, *The Silent Spring (1962)*, highlighted how scientific inventions, originally designed for human betterment, can inadvertently become threats to the planet.<sup>1</sup> Science and technology undoubtedly offer a clear lens through which

we can view the current state of the earth. Moreover, they aim to provide impartial and objective solutions to address the environmental crisis. However, the underlying truth persists: while science and technology can play pivotal roles, they alone cannot rectify the crisis.<sup>2</sup>

The challenges posed by resource exploitation and the myriad environmental problems fundamentally stem from our perceptions of our relationship with the natural world. More precisely, environmental crises can be traced back to our anthropocentric viewpoint, wherein we see nature as inferior, attempt to dominate it using scientific knowledge, and overlook the rights and interests of other non-human entities.

The conundrums associated with resource exploitation and environmental crises are indeed 'multidimensional' <sup>3</sup>. These dilemmas encompass a diverse array of stakeholders, from scientists, technicians, and politicians to economists, philosophers, and individual citizens. To genuinely address and potentially overcome these challenges, it's paramount to cultivate a pragmatic mindset. We must formulate strategies anchored in ethical values, complemented by scientific and technological insights.

Relying on scientists and policymakers for solutions is not irrational. However, without the active participation of value-driven citizens, any solution could be rendered futile. In my opinion, experts in science and technology should address technical issues, economists should advocate for eco-friendly strategies, and policymakers should prioritize sustainable development over short-term gains for political benefits. Most importantly, philosophers and environmentalists should empower and motivate citizens to engage actively in civil debates on environmental issues, thereby promoting value-based environmentally sustainable development.

The inspiration for this thesis comes from observing the current state of our planet. I sought to bridge the gap between theoretical ethical knowledge and practical challenges. The primary aim of this thesis is to discuss clearly, consistently and systematically the dimensions of resource exploitation and environmental crises from an ethical perspective. I endeavoured to illuminate the myriad aspects of resource exploitation and environmental crises in this discourse. Since the dawn of human existence, the natural environment has provided everything necessary for survival. Despite its sufficiency, early humans struggled with accepting their total dependence on nature. They yearned for independence and control over their surroundings and, to some extent, achieved this dominion. However, this triumph was short-lived as nature began to demonstrate the consequences of unrestrained resource exploitation.

In their pursuit of independence and a more comfortable existence, humans inadvertently began a destructive cycle against their very home—the Earth's natural environment. The consumerist mindset prevalent in human society obscured the potential consequences of disrupting nature's delicate ecological balance. The devastating impacts of human activities are already evident and will continue to affect future generations due to our deep connection with nature's ecological systems. From the outset, even before the discovery of fire, humans were an integral part of nature, similar to any other species. The discovery of fire signified the dawn of human civilization, fueling an insatiable desire not just to coexist with nature, but to master it. Before the agricultural revolution, humans were gatherers, sourcing their sustenance directly from nature. However, with the advent of agriculture, they transitioned into producers, no longer at the mercy of nature's whims.

This transformation had a profound impact on the environment. It led to the degradation of natural biodiversity and a simplification of the ecosystem. Land and other resource exploitation expanded in tandem with civilization's growth and the industrial revolution.

Scientific discoveries and technological innovations empowered humans, granting them the ability to manipulate and overexploit natural resources for economic and essential needs. They moulded the natural ecosystem to serve human desires and interests, neglecting the integrity of nature, the discipline of the natural order, and the equilibrium within the ecosystem. As a result, nature reached its resilience threshold, started revealing the repercussions of human actions, and triggered numerous environmental crises. The exploitation of natural resources primarily facilitates the production of industrial commodities and agricultural outputs. Throughout this discussion, I aim to shed light on the delicate balance between resource use and sustainable environmental practices, reminding readers of the critical need for mindful consumption and preservation.

In the first chapter, I delve into the various facets of resource exploitation and the environmental crisis. The term 'resources' encompasses both human and natural elements. However, my discussion focuses primarily on natural resources, which refer to the naturally occurring living and nonliving components within the Earth's system. These include the atmosphere, energy, land, wildlife, and water, which are the primary natural resources. Sunlight, soil, sand, stone, minerals, oil, coal, metals, natural gas, animals, birds, fish, and plants also fall within this category. These resources are indispensable for human survival and prosperity.

Historically, nature has often been perceived as a passive entity, vulnerable to unlimited exploitation. Traditional anthropocentric ethics, particularly those originating from Judaic-Christian religions prominent in Western ethical traditions, seem to grant humans the right to exploit nature one-sidedly. Moreover, Protestantism encourages followers towards a well-governed life and material success as a means for the salvation of their souls. The knowledge acquired through scientific discoveries and inventions during the age of enlightenment, combined with the concepts of British empiricism and positivism in the last

century, has further empowered humans to assert dominance over nature. These influences have fostered a sense of superiority, leading to human chauvinism and speciesism. Consequently, a selfish human nature, propelled by a consumer-driven society, drives the rampant exploitation of nature to satisfy human desires. Technological advancements have enabled rapid and efficient extraction of natural resources. With the burgeoning human population, the demand for resources has surged to accommodate the mass production of industrial commodities, services, construction, electricity, transportation, and more. The introduction of heavy machinery and transport in agriculture, aimed at boosting food production, has further harmed the natural environment.

Intense competition in business, coupled with an insatiable desire for economic growth, leads businesses to use media and advertising to promote a culture of consumerism. They capitalize on the general public's limited awareness of the consequences of resource exploitation and environmental degradation. Even those who are aware of the repercussions often lack guidance on how to counteract the exploitation and depletion of natural resources. The thoughtless and excessive use of these limited resources can give rise to numerous environmental challenges, such as climate change, deforestation, desertification, species extinction, habitat loss, pollution, and depletion of renewable and non-renewable resources. This can also lead to various social issues like environmental racism, forced migration, waste trafficking, hazardous waste dumping, and environmental injustice, among others.

In the second chapter, I have discussed a more abstract form of ethics, that is 'philosophical ethics'<sup>6</sup> which guides us to actively participate in practical problems such as environmental problems. Philosophical ethics liberate us from our prejudice and 'ethical blindness'<sup>7</sup> and help us to build a rational, unbiased and balanced outlook. In ethical discussions, the value of nature and its relationship to human life is consistently a

prominent theme, as evidenced from the works of Aristotle to contemporary Western thinkers.

Ethical theories, which are described as ‘patterns of reasoning’<sup>8</sup> are being developed by many philosophers' continuous endeavor to provide a systematic ethical guideline from ancient times to the present. I have provided a concise overview of some of the most impactful traditional ethical theories, e.g., natural law tradition, utilitarian theory, deontological theory, and virtue ethics. These theories form the foundation of our understanding, analyzing, evaluating, and making ethical decisions.<sup>9</sup> I have tried to show what is the main theme of these trends and their limitations.

I have also discussed why these theories are criticized by ethicists and contemporary environmentalists. These traditional ethical theories are to be critically examined due to the prevalent claim that these theories are, to some extent, responsible for environmental crises because these theories are human centered. Moreover, they are to be examined to show the relevance of these theories to environmental ethics. Furthermore, environmental ethics not only stem from traditional ethical theories but have also contributed to the evolution of this philosophical branch. Consequently, highlighting their interrelation is of paramount importance.

The third chapter of this thesis delves into the various perspectives offered by contemporary environmental ethics. Within these pages, I aim to provide a comprehensive overview of the background and emergence of environmental ethics. Moreover, I have discussed some contemporary, popular environmental ethical approaches, which includes anthropocentric approach, biocentric approach, ecocentric approach(land ethic), radical approaches (deep ecology, ecofeminism, social ecology), and pluralistic approach. Such



approaches foster a systematic pattern of thought, enabling us to understand and evaluate environmental issues more effectively.

As environmental issues are inherently global, a reasoned dialogue necessitates a common language, which these approaches can provide.<sup>10</sup> They guide us in evaluating the validity of our decisions pertaining to environmental matters. Lastly, I broached the concept of the sustainable development approach as an ecological sustainability approach. This approach is widely recognized as a viable method for determining resource usage and addressing environmental crises.

The fourth chapter presents a discourse on how the concept of sustainable development advocates for protecting the rights of future generations and the responsibilities we bear towards future generations. Firstly, I have discussed why sustainable development is necessary for future generations as some thinkers challenged the concept of intergenerational responsibility. As our actions today shape the future, it felt imperative to discuss our duties towards generations yet unborn. I present arguments put forth by many esteemed environmental philosophers to highlight that we do bear responsibilities towards future generations.

I have presented arguments provided by prominent thinkers that we not only have obligations or responsibilities to the future generations but also they have the right to a livable planet and resources to flourish their potential. I have propounded some of our most important responsibilities. Lastly, I have indicated that we have abundant motivation to fulfill these responsibilities. The sustainable development approach acknowledges the rights of future generations and our responsibilities towards them.

Natural resources are not infinite; they are finite and precious. Without sustainable utilization of these resources, life on Earth cannot be sustained. The gravest consequences

of many contemporary environmental problems, such as climate change, greenhouse effect, desertification and deforestation, land erosion, the depletion of natural resources, and the eradication of species and habitats, will unfurl long after the present generations have passed.

Nature is the provider of our fundamental needs for survival. However, we often fail to limit our needs, succumbing instead to a materialistic and consumerist lifestyle. Future generations have an inherent right to natural resources, and we bear the responsibility to leave them with a habitable Earth, replete with ample resources and a healthy environment to realize their potential. To achieve this, we must espouse responsible and sustainable use of natural resources.

In conclusion, I am deeply influenced by modern environmental philosophers as I explore the potential of creating an environmentally sustainable economy. This novel concept of an economy is different from the traditional model as it wouldn't simply focus on increasing the profit margin or economic growth as the main objective. Instead, it would place a great emphasis on the sensible and judicious utilization of our planet's natural resources in a way that caters to human needs effectively. This innovative approach to economics seeks to minimize the harmful environmental impact that often comes hand in hand with economic activity. It brings a radical shift in perspective, encouraging us to view our natural resources not merely as commodities, but as integral parts of the ecosystem that need to be managed with utmost care and respect.

In order to achieve this goal, I delve into the discussion of some specific initiatives that could potentially lead us towards realizing this environmentally sustainable economy. My recommended initiatives are- recognising the value of natural resources, management of renewable resources, investment in alternative energy resources, following green strategies

in business, application of appropriate technologies, implementation of environmental laws and justice, active participation of people from all sectors, motivating people, and applying sustainable approach in practical life. These initiatives can play a critical role in transforming our current practices and attitudes, moving us away from our economically driven mindset to a more value-driven perspective. The overarching aim of these initiatives is to encourage a more eco-friendly attitude towards nature.

It's about fostering a deep understanding and respect for our environment among people, cultivating a sense of responsibility that we owe to both our present and future generations. In essence, we need to cultivate an attitude that values long-term sustainability over short-term gain, ensuring the prosperity of not only ourselves but also of generations yet to come. This could bring about a significant paradigm shift, instilling in people a greater consciousness and respect for the environment, and setting us on the path towards a future where economic growth is harmoniously aligned with environmental preservation.

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## **Chapter: One**

### **Facets of Environmental Crisis**

In the annals of human history, the significance of natural resources has always been paramount. These resources have continuously been harnessed for our survival and welfare, shaping the course of civilization over time. Nevertheless, in contemporary times, the situation has taken a dangerous turn as the overexploitation and mismanagement of these resources have escalated into serious global crises. These crises have become pressing issues that weigh heavily on the shoulders of our societies and governments alike.

Human activity, often misguided or ill-considered, has been a major contributing factor to these crises. We are witnessing an alarming rate of depletion, not only of non-renewable resources but also of those that are potentially renewable. Such a trend threatens the stability of our ecosystems, with ramifications that extend far beyond our immediate needs and wants.

In this modern age, industrialization and massification have exerted a profound negative impact on the natural environment. These twin phenomena, driven by our ceaseless demand for commodities and resources, have treated nature as a passive object ripe for relentless exploitation. It is a behaviour that seems to be rooted deeply within our collective consciousness, perhaps borne out of interpretations of biblical tradition that gave humanity 'dominion over the earth'.

The emergence of highly specialized technology, an attribute of the modern world, has further facilitated the exploitation of natural resources. Factors such as burgeoning global population, aggressive business competition, a pervasive culture of consumerism, and advancements in

technology exacerbate the situation. Added to this toxic mix is the inherently selfish and dominant nature of human beings which, unchecked, further accelerates the exacerbation of environmental crises.

These crises manifest in numerous forms such as climate change, pollution, resource depletion, energy waste, and the extinction of species. They stand as stark reminders of our skewed relationship with the environment, signaling the urgent need for change. If we nurture any hope of bequeathing a habitable planet to future generations, the only viable solution lies in a fundamental paradigm shift in our perspective towards nature.

To foster this change, the concept of sustainable development has been introduced. It strives to achieve a delicate balance between human needs and the preservation of natural resources, instilling the wisdom of prudent resource use. It represents an aspirational goal to leave the Earth no worse than we inherited it—a noble endeavor that aims to mitigate the damage wrought by generations of unchecked exploitation.

Natural resources, by definition, are items available in our environment that can be accessible by technology, feasible economically, and sustainable from a cultural aspect. They cater to human needs and wants, and with the passage of time and the progression of technological advancement, the status of an item can be elevated to that of a resource.

Such resources are classified based on various criteria. They are categorized as potential or actual, depending on the level of development and use. Potential resources, which are known to exist but in use at present time and may only be utilized in the future, while actual resources are currently in use and limited in quantity.

The origin of resources leads to another classification into abiotic and biotic resources. Abiotic resources are non-living entities such as land, water, air, and minerals. Biotic resources encompass forests and their products, animals, birds and their products, fish, and other marine organisms. Certain minerals, like coal and petroleum, which are formed from fossilized organic matter over extended periods, also come under biotic resources. Resources can also be divided based on distribution into ubiquitous, which are found everywhere like air, water, wind, and sunlight, and localized, found only in specific locations, such as metal ores.<sup>1</sup>

The availability of resources in nature further classifies them into renewable and non-renewable resources. Renewable resources replenish or reproduce relatively quickly and are continuously available, earning them the label of perpetual resources. However, overexploitation can lead to their depletion, leading them to be also referred to as potentially renewable resources. Non-renewable resources, in stark contrast, cannot be replenished once depleted and are limited in supply. They form over incredibly long geological periods, and their rate of formation is excruciatingly slow. New stocks of non-renewable resources might be discovered, but these discoveries don't impact the total amounts of these resources on Earth.

The exploitation of these natural resources occurs when they are used in an unsustainable manner, primarily to fuel economic growth, leading to severe environmental degradation or crises. The burgeoning population and competitive economic growth have led to unsustainable extraction of resources like fossil fuels (oil, coal, and natural gas) and subsoil minerals (precious metals used primarily for the industrial production of commodities), exacerbating these environmental crises. This stark reality underscores the necessity of

revising our relationship with our planet's resources, inspiring a sustainable and responsible approach to their use.

### **1.1 Reasons of Environmental Crises**

Life as we know it is impossible without the bountiful natural resources that our planet offers. Since the dawn of their existence on Earth, human beings have been unequivocally dependent on these resources for their survival and continued growth. These resources are essential to our sustenance, because without breathing air, drinking water, and consuming food provided by nature we wouldn't be able to live. However, in the contemporary era, our use of natural resources has escalated beyond mere utilization, veering alarmingly into the realm of rampant exploitation.

The wheels of business and industry cannot turn without the raw materials that nature generously provides. This exploitation is particularly evident when finite natural resources are harnessed recklessly for the purpose of economic growth without considering the principles of sustainability and ecological balance. The production processes of businesses fundamentally depend on natural resources that are extracted from the environment. These resources are often processed or manufactured into final products and services. This includes various materials such as minerals and metals, steel, aluminium, copper which are used in various production, such as in the construction of buildings, to be utilized in automobile production, to be incorporated into electrical products. Moreover, many rare-earth minerals are indispensable in the manufacture of advanced electronics, including smartphones.

Agriculture, a sector that is responsible for the production of our food and clothes, significantly depends on natural resources such as land, soil, and water. Ecosystem services



such as pollination are also integral to agricultural processes. Most products and services rely on the combustion of fossil fuels like coal, oil, and gas for energy generation. This energy powers machinery, factories, processing plants, and transportation systems, among others. Moreover, other sectors, i.e., telecommunications, healthcare or even the education sector are using natural resources for their infrastructure or technology. The global rate of material use and extraction continues to climb, and the pace globally outstrips not only population growth but also economic growth. This implies a marked inefficiency in our use of resources. If current trends persist, global resource extraction is projected to surge by a staggering 110% by 2060.

The significant factors contributing to resource exploitation are manifold and diverse. These include the idea of dominant nature rooted in Western tradition, the Judeo-Christian concept of the human-nature relationship, the transformations ushered in by the agricultural and industrial revolutions, overpopulation, the pervasive consumerist attitude of modern societies, the rise of sophisticated modern technology, inherent human selfishness and greed, the tendency towards human chauvinism, and a widespread lack of awareness regarding environmental issues. Each of these critical factors plays a distinct role in contributing to our current environmental crises, and merits a detailed and nuanced exploration.

### **1.1.1 Dominant Nature Emerging from the Judeo-Christian Religion**

The prevailing ethical frameworks that govern our world, especially those rooted in the Western philosophical tradition, often allocate humans a position of primacy. These dominant ethics, which view humans as superior beings, have been subject to critical analysis by environmentalists who argue that this human-centered orientation falls short in terms of

empathy towards non-human elements of the environment. Further, critics assert that such an approach categorically denies the direct moral responsibility we owe to the natural world.

American historian Lynn White Jr. , in his seminal essay “The Historical Roots of Our Ecological Crisis” (1967), cast a critical eye over the nature of these Western traditional ethics. He argued that the human-centered approach towards nature is largely ingrained in the Judeo-Christian ethos. As per these traditional ethical perspectives, humans are seen as the supreme power holders. Crafted in the divine image of God, humans are considered distinct from other non-human entities by virtue of their moral and metaphysical uniqueness.<sup>2</sup>

This purported superiority over nature bestows upon humans the right to exert control and dominance over it. The theme of human dominion over nature recurs persistently in the Judeo-Christian religious narrative. Humans are presented as superior to all other creations, deemed the zenith of creation, and given the mandate to rule. The holy scriptures, religious teachings, and laws embedded in their economy all approve and reinforce the perspective that treats nature as a vast reservoir of resources, destined to serve human needs and interests.

This belief in human dominion over nature is underscored by a well-known passage from the book of Genesis in the Bible, which goes: "... God said unto them, Be fruitful, and multiply, and replenish the Earth, and subdue it: have dominion over the fish of the sea, and over the fowl of the air, and over every living creature that moveth upon the earth." (Genesis, 1: 27-28). These words, held sacred by billions, reinforce the ideology that endorses humans' sovereign authority over nature, condoning the exploitation of natural resources for human welfare.

Thus, the dominant nature emerging from the Judeo-Christian religious tradition provides a powerful narrative that supports and justifies human supremacy and dominance over the natural world. However, as contemporary environmental crises make abundantly clear, this approach requires a critical re-evaluation to align human actions with the broader needs of planetary sustainability and survival.

### **1.1.2 Dominant Nature of Humans Stemming from Chauvinism, Selfishness, and Greed**

The survival of humanity hinges on the vast array of resources that nature unfailingly offers. Nature, in its benevolence, holds enough to satisfy our basic needs; however, it is not an inexhaustible treasure chest to continuously satisfy human greed. This is a point that has been reinforced by numerous thinkers who have highlighted human greed as a pivotal factor contributing to rampant resource exploitation.

There exists a contradiction in our collective human nature. We simultaneously perceive ourselves as the most distinguished beings in the tapestry of nature, while our avarice leads us down the path of environmental devastation. The renowned English philosopher Thomas Hobbes(1588-1679) described human nature in his famous book *Leviathan(1651)* as-

“...the life of man, solitary, poor, nasty, brutish, and short”<sup>3</sup>.

This is vividly reflected in how self-motivated individuals and societies can tend to recklessly overexploit natural resources. These same societies, driven by short-term gain, are willing to inflict long-lasting ecological damage and deplete natural resources. In doing so, they dismiss the profound harm their actions impose on the environment, often prioritizing immediate economic benefit over long-term sustainability. Furthermore, there is a prevailing sentiment among humans that we are a superior species, which gives birth to the concept of speciesism.

This term was widely popularized by the famous philosopher and advocate of animal rights, Peter Singer. He argued that just as it is ethically reprehensible to deny equal moral standing based on differences in race or sex, it is equally unacceptable to do so on the basis of species membership.

Such facets of human nature foster a sense of arrogance that profoundly impacts the relationship between humans and nature. Stemming from this ‘arrogance of humility’, as it is sometimes described, humans often relegate nature to the position of a servant – a resource to be dominated and manipulated to fulfill their desires. This viewpoint is sharply criticized by American Marine biologist Rachel Carson(1907-1964) in her seminal book *The Silent Spring*(1962). She suggests that the phrase ‘the control of nature’<sup>4</sup> is inherently damaging, as it propagates the idea that nature exists purely for human convenience. This sense of entitlement and disregard for nature contributes significantly to the ecological crises we face today.

### **1.1.3 Culture of Consumerism Promoted by Competitive Business Industries**

The burgeoning culture of consumerism, fuelled by aggressive competition in the business sector, has become a defining characteristic of modern developed societies. This culture, marked by an insatiable desire for material goods and the consumption of resources beyond necessity, presents a significant and undeniable threat to our planet's atmospheric stability and climatic equilibrium. The current dynamic of consumerism doesn't merely shape individual behaviors and attitudes, but also fuels and is, in turn, fuelled by the practices of businesses and industries.

In the highly competitive landscape of modern commerce, businesses are relentlessly vying for market dominance and profit maximization. As a consequence, the most convenient route to financial gain is often at the cost of the environment. Natural capital, or the stock of natural resources that provide essential ecosystem services, is viewed by many businesses as a free or low-cost commodity, ready for extraction and exploitation. The true monetary cost of depleting this capital - including the ecological harm and loss of biodiversity it entails - is frequently overlooked, resulting in an unsustainable mining of our planet's resources.

Businesses, in their pursuit of rapid economic growth, exploit these natural resources indiscriminately, often without considering the environmental repercussions of their actions. There seems to exist a sort of endless race between businesses and consumers, a cyclical pattern of increasing production and consumption. On one hand, consumers, driven by the desire to acquire more, continue to raise their demand for products. On the other hand, businesses, in their quest to meet and further stimulate this demand, churn out more and more products, thereby escalating the strain on the environment. The industry's production methods frequently involve the unsustainable extraction of natural resources, with little regard for the environmental integrity or long-term sustainability. Further compounding the issue is the widespread use of advertising as a tool to drive sales and bolster consumer demand. These persuasive marketing tactics, capitalizing on the human susceptibility to materialistic desires, seduce consumers into a buying frenzy, encouraging consumption based on desire rather than necessity.

This escalating cycle of consumption, combined with the materialistic fervor that permeates consumer society, exacerbates the problem of resource depletion. The ever-increasing pace and volume of consumption not only drains our planet's finite resources at an alarming rate

but also amplifies the environmental challenges that we currently face. Thus, the intersection of competitive business practices and rampant consumerism emerges as a critical driver of environmental degradation, pushing us to reconsider the sustainability of our current economic and social models.

#### **1.1.4 Overpopulation Responsible for Environmental Crisis**

Overpopulation is an issue of significant concern that has come to the forefront in recent years, characterized by a rapid and unsustainable increase in the human population on the planet. It presents a complex web of challenges and implications, particularly concerning environmental sustainability and resource availability.

The roots of this population explosion can be noted back to several historical developments. The advent of enhanced hunting techniques, coupled with the domestication of fire, marked the initial stages of our ability to secure reliable food sources, leading to a gradual increase in human numbers. Subsequent revolutions in agriculture, notably the Neolithic Revolution, allowed us to cultivate land and raise livestock, thereby ensuring a more stable and abundant food supply. This agricultural revolution significantly increased the carrying capacity of our environment, facilitating a further expansion in population size.

Moreover, the remarkable progress made in science and medicine over the centuries has also been a key contributor to population growth. Medical advancements, such as the development of vaccines, antibiotics, and improved surgical procedures, have drastically reduced mortality rates. Similarly, improvements in sanitation and public health infrastructure have curtailed the spread of diseases, leading to longer life expectancies. Despite the perennial challenges of disease, poverty, famine, and war, the human population continues to surge in an almost

exponential fashion. It is not an overstatement to suggest that this relentless population growth constitutes one of the root causes of our contemporary environmental dilemmas.

The logic behind this assertion is simple yet profound: an increasing population necessitates a corresponding increase in resources such as food, clothing, housing, and energy. The procurement of these resources invariably leads to a surge in the production of goods and commodities. Such escalation in production demands the extraction of vast amounts of raw materials from nature, placing an intense strain on our planet's finite resources. The consequence is a clear and direct link between a burgeoning population and escalated consumption patterns. This increased consumption, in turn, accelerates the rate of resource exploitation and contributes to widespread environmental pollution. As such, overpopulation emerges as a crucial driver of environmental degradation, underscoring the urgent need to manage population growth sustainably to ensure the long-term well-being of our planet.

### **1.1.5 Agriculture, Civil and Industrial Revolution, and Modern Sophisticated**

#### **Technology**

Over the course of human history, scientific discoveries and the subsequent innovations in technology have played a significant role in shaping major revolutions - most notably in the fields of agriculture, civil engineering, and industry. These technological advancements have substantially enhanced the domestication and cultivation of plant and animal species, and have similarly improved the methodologies through which raw metals are processed into utilitarian tools.

Modern sophisticated technology, in particular, has vastly facilitated access to natural resources. This has inevitably led to an acceleration in economic growth, paving the way for

an era of unprecedented wealth and prosperity. The far-reaching revolutions that technology has spurred in the domains of agriculture and industry have yielded a wealth of facilities that are indispensable to the comfort and convenience of human life. These revolutions have significantly improved the quality of our lifestyles, blessing us with a cornucopia of luxuries - from abundant and varied food options to life-saving medicinal innovations. The face of our habitats has been completely transformed through urbanization, and our living spaces have been modernized to provide us with optimal comfort. All of these conveniences are a direct consequence of the continual scientific and technological innovations.

However, in this ceaseless quest for comfort, luxury, and pleasure, we have inadvertently turned a blind eye towards the potentially destructive impact of our actions on the natural environment. We have largely disregarded the environmental footprint that we leave behind in our pursuit of these technological advancements. In the race to keep pace with a rapidly evolving, competitive, consumerist society, we are often guilty of upsetting the delicate balance of nature on our planet. We have pushed the equilibrium of our planet's natural resources to the brink, threatening the sustainability of these resources for future generations. It is crucial that we reconcile this pursuit of progress with the necessity for environmental conservation, to ensure the long-term survival of our planet and its diverse ecosystems.

#### **1.1.6 Lack of Awareness**

A widely held misconception among many is the notion that the resources nature provides are infinite. This belief fuels the assumption that we are at liberty to harvest these resources in any quantity and manner we deem fit, without consequence. A significant proportion of the global



population remains largely unaware of the scale of resource exploitation and the far-reaching impacts it can have on the environment. Over time, this lack of awareness and understanding can result in significant changes that can affect every facet of their lives.

When this lack of environmental awareness is compounded with a prevalent consumerist attitude, it effectively stifles rational thought and promotes a cycle of unsustainable practices. Business enterprises, particularly those that rely heavily on natural resources, often perpetuate this dangerous misconception that natural resources are inexhaustible. This feeds into a larger systemic problem, where the belief in the unlimited nature of resources drives unsustainable business practices.

Economists and business strategists frequently overlook the stark reality that the overexploitation of natural resources will inevitably lead to an increase in costs for economic endeavors. They often fail to adequately account for the true cost of overexploitation in their financial projections. There is also a common reluctance to invest in environmentally friendly equipment, despite its potential long-term benefits. Furthermore, many individuals and institutions remain largely unaware of the strategies and methodologies available to reduce the depletion and exploitation of resources. This contributes to the persistence of harmful practices and the perpetuation of a culture of unsustainability.

American ecologist Garrett Hardin(1915-2003) referred to this situation as ‘the tragedy of the commons’<sup>5</sup>. In his 1968 essay “The Tragedy of the Common”, published in the prestigious journal *Science*, Hardin expounded upon William Forster Lloyd's parable from 1833. He elucidated how individuals, motivated by self-interest, could unwittingly overexploit and ultimately destroy shared resources. Earth's resources are finite and largely communal.

However, with the exponential growth of the human population, coupled with an array of other contributing factors, they run the risk of being severely damaged, if not completely ruined, due to unchecked overexploitation. This underscores the urgent need for raising environmental awareness and adopting more sustainable practices at every level of society.

## **1.2 Impact of Unwise Resource Exploitation**

Thinkers often use the metaphor of ‘cancer’<sup>6</sup> in the human body to describe the environmental damages caused by human activities. Much like untreated cancer leads to the demise of the human body, unaddressed environmental damages have the potential to render our planet uninhabitable. American professor of philosophy in Fairfield University, US, Lisa H. Newton precisely highlighted in her notable work *Business Ethics and the Natural Environment*(2005) , the contemporary environmental challenges we face are extensive and multifaceted. In the following section, I will discuss some serious impact of unwise resource exploitation

### **1.2.1 Population and Consumption**

The Earth is strained by its population. Rapid population growth is one of the primary factors contributing to the overexploitation of natural resources. Just as cancer cells overgrow and replace healthy tissues necessary for a human body's survival, overpopulation operates similarly on Earth by replacing habitats of other non-human species. If we observe the formula for measuring environmental impacts, we notice that population is an integral variable.

The formula for environmental impact equates it to the product of population growth, consumerist attitudes, affluence, and technology (I=PAT). However, there is an ongoing debate about which of these is the main contributor to environmental problems. American

biologist Paul Ehrlich(1932-present) argues in his work *The Population Bomb (1968)* that the environmental crisis has worsened significantly due to uncontrolled population growth. In contrast, American cellular biologist and ecologist Barry Commoner(1917-2012), in his book *The Closing Circle (1971)*, asserts that the consumerist mindset of modern people, especially in industrially developed countries, is responsible for environmental problems. An increase in population undoubtedly elevates the demand for food, shelter, clothing, and other essential needs. This, in turn, necessitates the utilization of more energy and resources to produce these goods and services, leading to environmental pollution and resource depletion. The situation exacerbates when individuals maintain a consumer-driven lifestyle, disregarding the environmental impacts and future generations needs.<sup>7</sup>

### **1.2.2 Climate Change**

Climate change, an increasingly familiar term in the discourse of environmental impacts resulting from unsustainable production and consumption patterns, essentially refers to significant long-term shifts in temperature and prevalent weather patterns on our planet. Although these shifts were predominantly a natural phenomenon prior to the 1800s, the influence of human activities has since emerged as the primary catalyst for these transformations.

Human actions release enormous quantities of carbon dioxide (CO<sub>2</sub>) into the atmosphere, which gradually contributes to a rise in Earth's temperature. This process, known as global warming, is driven exceedingly when humans burn fossil fuels, i.e., gas, coal, oil etc. The energy derived from these fuels is a cornerstone of economic activity worldwide. It powers the machinery which are required for excavation, agriculture and farming, fuels the factories

to process and manufacture products, enables the vehicles necessary for goods transportation, provides the energy required for consuming products and services, and even supports waste treatment processes. Remarkably, around 80% of the world's energy consumption is sustained by these fossil fuels<sup>7</sup>.

Apart from energy production, the extraction and production of certain materials also significantly contribute to climate change. This is because they release greenhouse gasses during various chemical processes involved in their production. The production of food and agricultural products stands as another key source of greenhouse gas emissions. This is largely attributable to the use of nitrogen-containing fertilizers, methane emissions from livestock, and the depuration of land for the purpose of farming or grazing. The latter not only reduces carbon sequestration by trees and vegetation but also increases the levels of atmospheric CO<sub>2</sub>. As atmospheric temperatures continue to rise, polar ice caps are melting at an alarming rate, leading to an increase in sea levels. This poses a significant threat to terrestrial habitats, which face the prospect of inundation. If the current rate of global warming continues unabated, the Earth's climate will undergo a transformative shift akin to the metabolic alterations caused by unchecked cancerous growth in the human body.

However, climate change involves more than just a rise in atmospheric temperatures. It also encompasses a host of other alarming phenomena, including the depletion of the ozone layer, increasingly frequent heat waves and cold waves, severe drought conditions, freshwater scarcity, intense forest fires, rising sea levels, widespread flooding, catastrophic storms, escalating incidence of wildfires, and a steady decline in biodiversity.

Future predictions paint a grim picture, with an anticipated increase in climate refugees as rising sea levels and saltwater intrusion compel people to relocate. This may result in escalating health risks, widespread poverty, and displacement on a scale hitherto unseen. In essence, climate change is poised to impact every conceivable aspect of our lives, highlighting the urgent need for concerted global action to mitigate its effects.

### **1.2.3 Resource Depletion and Energy Waste**

Natural resources, the elemental lifelines of our existence, play an indispensable role in our survival. Nature, in all its abundance, harbors a wealth of resources capable of sustaining human life, yet these resources are not an infinite or limitless bounty. Driven by our unchecked consumerism and short-sighted lust for immediate gratification, we are guilty of overharvesting both renewable and non-renewable resources. This is largely done in the pursuit of short-term economic gain, often neglecting the needs of future generations and potential environmental damage that such exploitation may cause. As a consequence, we find ourselves in a dire situation where our non-renewable resources, and even those resources that have the potential to renew themselves, are rapidly depleting. Astonishingly, humans are consuming nearly 40% of the Earth's resources. This overuse draws a worrying parallel with a cancerous tumor that drains the resources of the body for its own growth, effectively consuming the very host that sustains it.

Such aggressive exploitation of resources is occurring at a pace that exceeds both population growth and economic expansion. This strongly implies that we are using resources in a grossly inefficient manner. Our unsustainable patterns of consumption and production are not

only exhausting our natural resources but are also causing a cascade of environmental problems.

Each stage in the lifecycle of a product or service, be it extraction, processing, manufacturing, consumption, or waste disposal, brings with it its own set of environmental challenges. Moreover, our current energy consumption practices leave much to be desired in terms of efficiency. An alarming proportion of energy, nearly 84%, is wasted rather than utilized judiciously in commercial settings. The overexploitation that ultimately leads to the degradation of renewable resources is a self-destructive path. Economies heavily depend on these natural resources for their sustenance and growth. By degrading and exhausting these resources, we are essentially undermining the very foundation upon which our economic structures are built. The path towards sustainable and mindful consumption is one that we must tread, for our own survival and the preservation of the planet for generations yet to come.

#### **1.2.4 Pollution**

Just as growing tumors produce toxins in the human body, humans, akin to cancerous tumors, are generating toxic wastes that pollute the air, water, and land.<sup>8</sup> The pollution resulting from unsustainable production and consumption severely damages the planet's life-supporting systems and jeopardized human and planetary health. While waste in the form of packaging or discarded products significantly harms marine and terrestrial life, pollution doesn't occur only when a product or service's lifetime ends. Pollution transpires at every stage of a product or service's value chain, which includes the extraction of raw resources, processing, manufacturing as well as distribution and consumption.

Water exploitation is closely linked with agricultural, industrial, residential sectors, and seasonally with tourism. Water pollution means contamination of water largely because of human activities. Contaminants are introduced into water of rivers or oceans and other water bodies through industrial drainage systems, sewage discharges, agricultural activities, municipal drains etc. Water pollution can lead to the degradation of all aquatic ecosystems, including freshwater, coastal, and oceanic bodies. A 2017 study showed that 1.8 million people suffered and were killed from waterborne diseases. Alongside climate change, natural disasters, wars, and conflicts, water pollution is precipitating a water crisis. Issues such as ocean acidification and eutrophication are contributing to the problem, alongside water gasification, freshwater salinization, and thermal pollution.

Air pollution means contamination of the environment (indoor and outdoor) because of biological, chemical, or physical agents which can alter the atmosphere's natural characteristics. Smoke from motor vehicles and industries is a significant contributor to outdoor air pollution. Indoor air pollution results from the use of biomass and coal for cooking and heating in poorly ventilated areas. Therefore, common sources of human-induced air pollution are motor vehicles, industrial and household devices.

Land, a valuable natural resource, serves as the foundation for biodiversity. All life forms depend on and flourish on this land. However, hazardous waste dumping from industrial production and agricultural uses of fertilizers are common causes of land pollution. Human activities can lead to soil erosion, pollution, acidification, and loss of fertility. Overuse of fertilizers and monocultures, along with transitioning from natural vegetation to agriculture, can cause significant soil erosion. Cultivation of crops like coffee, palm oil, cotton, soybean, wheat, etc., can exacerbate soil erosion beyond its ability to maintain itself, adversely

affecting soil quality. This includes the loss of soil structure, compaction, nutrient degradation, and soil salinity, which eventually results in a loss of fertility.

### **1.2.5 Deforestation and Desertification**

Historical evidence and statistical data reveal an alarming trend where humans are systematically and intentionally cutting down vast swathes of forest cover. This large-scale deforestation is largely driven by the need to create space for agricultural pursuits, animal grazing, construction activities, and manufacturing processes. It also caters to the demands of rapid urbanization and illegal logging, as well as the requirement for wood to be used for heating, cooking, and paper production.

These activities, spurred by a combination of overpopulation and mounting economic demands, have led to extensive deforestation on a global scale. This drastic alteration in the world's landscape triggers a host of serious repercussions. These include climatic change, increased frequency and severity of natural disasters, soil erosion, food insecurity, heightened risk of floods and droughts, ocean acidification, and desertification. Moreover, deforestation has been linked to significant losses in biodiversity, with many species facing the threat of extinction or already having been rendered extinct.

Desertification, a process that often follows in the wake of deforestation, is also predominantly caused by human activities. Practices such as overgrazing, urban sprawl, and agricultural activities conducted in environmentally vulnerable areas, coupled with the uncontrolled extraction of land resources, are significant contributors to desertification. The constant pressure to meet the escalating needs of an overpopulated population, coupled with



poverty and the insatiable demands of a market-driven economy, serve to further exacerbate the desertification process.

These actions dramatically alter our natural landscapes, turning verdant and biodiverse forests into barren and unproductive deserts. This process poses a serious threat to the ecological health of our planet, contributing to climate change, harming biodiversity, and reducing the availability of fertile land for agriculture. It is crucial that we address these issues and work towards more sustainable land management practices, in order to preserve our forests and prevent further desertification.

### **1.2.6 Loss of Biodiversity and Species Extinction**

Rapid biodiversity loss is occurring due to habitat destruction, largely instigated by overpopulation. The growing human population necessitates more habitation and resources, leading to the displacement and destruction of habitats required for the survival of other plant and animal species. This trend mirrors the destructive nature of cancer, which displaces and destroys cells within the human body.

The escalating demand for land for production and consumption, i.e., agriculture, industrial, infrastructure, raw material extraction etc. necessitates clearing land. This eradicates the biodiversity of plant life on the land, and also harms animal and insect life through habitat loss. The repercussions of biodiversity loss are grave, already damaging the life-supporting systems of food, water, and air, upon which all Earth's life depends. The Holocene extinction and defaunation are testament to this destructive human attitude.

In the current global scenario, we see a world burdened with overpopulation, steeped in pollution, and witnessing daily species extinction, energy waste, and resource exploitation.

These environmental crises are deeply connected to each other and mutually impactful. Furthermore, socio-economic crises, such as environmental racism, environmental injustice, hazardous waste dumping, and waste trafficking, are also linked to resource exploitation and environmental degradation. It is often the impoverished people who directly depend on nature for their living are mostly jeopardized by the damage to natural resources and environmental impacts. Regrettably, they also do not have enough support available to cope with the consequences.

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## **Chapter: Two**

### **Fundamental Traditional Ethical Theories**

The marvels of scientific discovery and the power of technological innovations have had an indelible impact on the course of human history, revolutionizing our way of life in myriad ways. These advancements have exponentially improved our quality of life, making it more comfortable and convenient than ever before. The fruits of these revolutions surround us in our everyday lives, illustrating the remarkable strides humanity has made over the centuries.

However, amidst these tangible developments, an intriguing question persists that provokes deep introspection: can the vast wealth of scientific and technological knowledge truly provide resolutions to the moral conflicts and dilemmas that weave their way through the fabric of our existence? In this chapter, I will discuss fundamental traditional ethical theories and their relevance to the present context, where resources are being exploited beyond imagination and environmental crises pose threats to human existence. Traditional ethical theories are the contributions of intellectual thinking from philosophers spanning from ancient to present times. These theories strive to solve moral conflicts and dilemmas and not only motivate but also guide us to live a morally worthy life.

#### **2.1 Philosophical Ethics**

In our daily life, we face various ethical dilemmas. Sometimes, we do not know what the ethically correct action is, and at other times, we may be unsure how to carry out such actions. There are also instances where we might know what the ethically correct action is and how to do it, but we may not want to act because it conflicts with our self-interest. Moreover, you

may be skeptical, as there is no universal answer to what constitutes ethically right or wrong actions. Viewing ethics primarily as an 'academic discipline'<sup>1</sup>, as noted by Lisa H. Newton in her notable work *Business Ethics*(2005), helps us address these dilemmas.

In this modern era, we find ourselves inhabiting a world where solutions to an endless array of problems are readily available at our fingertips. With the advent of the internet, access to a nearly limitless reservoir of information is as simple as conducting a search on a digital device. Yet, does this vast expanse of information truly hold the keys to deciphering the intricate moral complexities that shape and define our existence as humans? Is this storehouse of knowledge capable of providing clear, unequivocal directives on how we should lead our lives? Can it propose a reliable standard by which we can discern the ethical dimensions of our actions and behaviours?

These profound, compelling questions are nestled within the realm of Ethics, a pivotal branch of philosophy. The word 'ethics' has been derived from the Greek word 'ethos', which means 'customary' or 'habitual'.<sup>2</sup> Seventeenth century famous author William Lillie (1602-1681) in his renowned book *An Introduction to Ethics* (1948) defines ethics as-

“We may define ethics as the normative science of the conduct of human beings living in societies--a science which judges this conduct to be right or wrong, to be good or bad, or in some similar way.”<sup>3</sup>

That is, ethics is an intellectual discipline that serves as a form of normative science, rigorously examining human conduct within societal contexts, distinguishing actions as right or wrong, good or bad, and making a multitude of related assessments. It is through the lens of Ethics that we evaluate our moral standing and the impact of our actions on the world around

us. Ethics informs us how we should live our lives. It presents a systematic procedure for unraveling the tangled web of moral dilemmas and for scrutinizing ethical principles with a discerning eye. This philosophical discipline delves deeply into the very nature and significance of morals, values, and virtues, exploring the intricate interrelationships between them and their functionalities in shaping human behavior. Ethics, thus, serves as a compass guiding us through the often tumultuous seas of moral quandaries and ethical conundrums that we encounter on our journey through life.

In a more abstract form, philosophical ethics enables us to be an active and responsible rational citizen, to be an active agent and participant in rational and critical decision-making regarding conflicting issues like environmental problems or the exploitation of natural resources. Ethics primarily helps identify an issue as an ethical one. Normative ethics prescribes how to live, or what we ought to do, or what we should do. Descriptive ethics helps to evaluate the method or process of reasoning by which we justify and defend ethical decisions. Philosophical ethics assists us in thinking rationally in an unbiased and balanced way, beyond mere assumptions. This approach broadens our understanding, shifts our perspective and consciousness, and enables us to escape the limitations which are inherent in the way of our thinking arises from customs.

## **2.2 Fundamental Traditional Ethical Theories**

Ethical theories are ‘patterns of reasoning’<sup>4</sup> about ethics that have been systematically manifested and assessed by philosophers from ancient times to contemporary periods. Ethical theories attempt to provide systematic answers to questions of personal and social moral points of view raised by the descriptive and normative approaches of ethics. Questions such

as: What should I do? What kind of person should I be? What should I value? How should I live? What type of society is best? What policies should we follow as a group? What social arrangements and practices will best promote individual well-being? What should be done when individuals disagree?<sup>5</sup> And so on.

In the following discussion, I will delve deeper into these traditional ethical theories, examining their main tenets and principles. We will also explore the ways in which they have been appropriated, critiqued, and extended by contemporary environmental approaches. This exploration will help us discern the ways in which these traditional theories inform, enrich, and sometimes limit our attempts to construct a robust and responsive environmental ethic.

### **2.2.1 Natural Law Tradition**

The roots of the natural law tradition are found in the ethics of the great Greek thinker Aristotle (384-322 BC). According to Aristotle, understanding an object means comprehending its natural function, matter, structure, and the forces at work upon it. To understand something scientifically is to understand the causes for its being the way it is. Nutrition, sensation, and thinking are three fundamental activities of life. All things have a natural activity or function. Every living thing can be said to have its own good. The good of any living thing is to fully attain its natural activity.<sup>6</sup>

One of the most influential philosophers and theologians of the thirteenth century, Saint Thomas Aquinas (1225-1274 AC), endeavored to synthesize Aristotle's science and ethics with Christian theology. He interpreted Aristotle's scientific and ethical teleology as evidence of God's divine plan, which operates in nature. Therefore, we are ethically obligated to follow it.

The natural law tradition has been criticized because it is not necessary to have a telos or purpose for every object. Just because something functions within a system doesn't mean it has some good of its own or intrinsic value. Something cannot be considered good simply because it is natural. Death, disease, and natural disasters are examples that they are not inherently good, though they are natural. Natural law, as a divine plan of God, provides reason only to those who already believe in a divine creator. According to the theory of evolution, nature as we find today is the result of hundreds of years of random evolutionary change. Nature is neither good nor bad; it just is.<sup>7</sup>

In spite of these criticisms, the natural law tradition does not lose its appeal. Concepts such as caring for future generations, 'reverence for life' by Tom Regan, respect for all living things, love for nature or ecosystems, etc., have arisen from the natural law tradition.

### **2.2.2 Utilitarian Tradition**

Utilitarianism is one of the most influential ethical theories of modern times. Its roots are in the 18th-century famous thinker and economist Adam Smith's economic thinking and were further developed by British philosopher and social reformer Jeremy Bentham (1748-1832) and the most influential English speaking philosopher of the nineteenth century J.S. Mill (1806-1873). Utilitarianism is a consequentialist theory, meaning it focuses on the outcome or result of an action. An action is right if it produces maximum happiness for the maximum number of people.

Homo sapiens are mortal beings who possess sensations of pain, suffering, hunger, danger, and deprivation. For survival, they must fulfill some basic needs and wants. The relief of suffering and pain and the satisfaction of these needs are among their primary concerns. Thus,



they should work to satisfy those needs, minimize suffering, and maximize happiness as much as possible. This concept is closely related to utilitarianism.<sup>8</sup>

Utilitarianism, as previously mentioned, is a consequentialist theory; it focuses on the outcome or result of an action. An action is deemed good if it produces maximum happiness for the greatest number. The theory contains two elements - one is the account of good, and the other is a rule for judging all acts and decisions based on that good. Utilitarianism differentiates between intrinsic and instrumental value. Intrinsic value implies that something is valuable in and of itself, while instrumental value indicates that something's value is based on its relation to other things. Utilitarianism has two main versions: Hedonistic Utilitarianism and Preference Utilitarianism.<sup>9</sup> Hedonistic Utilitarianism asserts that 'pleasure or the absence of pain' is the only good valued for its own sake. It is universally desired and considered objectively good. Preference Utilitarianism: This form of utilitarianism is perceived as the 'happiness' that emerges from the satisfaction of our desires.

Utilitarianism has made a significant impact on the economy, government regulations, and policymaking. Nonetheless, it hasn't escaped criticism. The measurement problem poses one of the primary challenges for utilitarian theory. Phrases like 'maximize the overall good' and 'greatest good for the greatest number' inherently require measurement, comparison, and quantification. The 'good', as perceived by utilitarians, represents that which has intrinsic value. However, intrinsic value is qualitative and cannot be easily counted, measured, or compared. Furthermore, it's challenging to ascertain the scope and range of the individuals involved.<sup>10</sup>

### 2.2.3 Deontological Tradition

Deontology is derived from the Greek word for ‘duty,’ emphasizing the notion of ‘acting on.’ It is a non-consequentialist theory, with its central concepts being duties and rights. Eighteenth-century German philosopher Immanuel Kant (1724-1804) propagated this view in his writings. While consequentialist theories judge acts by their outcomes or consequences, Kantian ethics, being a non-consequentialist theory, posits that we can only control things under our domain. We bear responsibility for an act if we choose to act freely and autonomously. Ethically, we are responsible for our intentions, not the consequences. Immanuel Kant centered his ethical theory on human autonomy, dignity, and moral agency. Recognizing humans as rational animals capable of making reasoned choices, Kant posited that humans, being autonomous moral agents, can decide their actions. Hence, ethically, we act appropriately when we rationally choose categorical and universal principles. The ‘Categorical Imperative’ is the foundational ethical duty urging us to act in a manner universally acceptable to all rational beings. In the book *Working Toward Sustainability: Ethical Decision Making in a Technological World*(2012), American author Charles J. Kibert, et al. describes Categorical imperatives as-

“...moral statements that are objectively and universally true because of their intrinsic qualities (rather than due to their source or consequences).”<sup>11</sup>

The Categorical Imperative insists that humans must be treated as ‘ends’ or as subjects, never merely as means or objects. This is because people, being autonomous and rational, have intentions and purposes and can decide for themselves. Thus, it is our moral duty to respect them, never treating them just as tools for our objectives. From this standpoint, the

Categorical Imperative also sets the foundational ethical rights of being respected. Essentially, I must treat others with respect, valuing them for themselves, and others should reciprocate. The principle of justice necessitates that we always uphold our duties to others, respecting their rights under any circumstance. It becomes an injustice if we respect others' rights only when it results in favorable outcomes. Contemporary influential Environmentalist and author DesJardins wrote in his renowned book, *Environmental Ethics: An Introduction to Environmental Philosophy*(2001) that-

“...this ethical tradition values the duty to treat others respectfully and upholds rights of equality and freedom. These basic rights and duties stem from our inherent nature as beings capable of free and rational actions.”<sup>12</sup>

While Kantian deontology seems appealing, it does not offer a tangible foundation for substantial value judgments. Furthermore, this theory appears to assume that non-rational beings can be treated as means since they are considered objects.

#### **2.2.4 Virtue Ethics**

Virtue ethics stands apart from other contemporary rule-based ethical approaches, presenting an alternative to rule-centric utilitarian or deontological theories. Most virtue-based theories are teleological. The stipulations and principles of ethics may limit a person's actions based on self-interest rather than encourage them to act righteously, even if they are disinclined. Ethics aspires to offer a path to a fulfilling life. From this perspective, there's no discrepancy between one's obligations and desires. Ethics and self-interest complement rather than contradict each other. Aristotle believed virtues to be character traits that facilitate a meaningful human existence. Virtue ethics poses the question, ‘what kind of person should I be?’. Virtues,

whether justice, wisdom, generosity, pride, goodness, modesty, hopefulness, or charity, are personal characteristics or habits that deem an individual ethically commendable. Virtue-centric ethics prioritize character development, underscoring the significance of moral education and moral psychology.

### **2.3 Criticism of Traditional Ethical Theories by Environmentalists**

Traditional ethical theories serve as the foundational bedrock upon which modern environmental ethical theories have evolved. However, they often prove inadequate in offering comprehensive and effective solutions to present-day environmental dilemmas. This inadequacy mainly stems from the inherent anthropocentrism, or human-centeredness, characteristic of most traditional ethical theories.

The natural law tradition faces significant criticism. The existence of a telos or purpose is not requisite for every object. Just because something functions within a system does not mean it possesses inherent good or intrinsic value. Not everything that is natural is inherently good. For instance, death, disease, and natural disasters are natural, but they aren't inherently good. Viewing natural law as a divine plan of God only resonates with those who already believe in a divine creator. According to the theory of evolution, the nature we encounter today is the product of countless years of random evolutionary shifts. Nature is neither inherently good nor bad; it simply exists. The utilitarian tradition comes under scrutiny because the 'good', as defined by utilitarians, is seen as possessing intrinsic value. Such value is qualitative and does not lend itself to easy counting, measuring, or comparison. Introducing cost-benefit analysis to environmental regulations engenders a 'measurement problem'<sup>13</sup>. The Kantian Deontological theory attracts criticism due to its lack of a practical foundation for making profound value

judgments. Furthermore, its pronounced anthropocentrism implies that non-rational beings can be treated merely as means, being categorized as objects.

While traditional ethical theories lay the groundwork for environmental ethical theories, they fall short in prescribing solutions for contemporary environmental issues. Most of these traditional theories pivot on anthropocentrism. Environmental ethics emerged by critiquing the anthropocentrism present in traditional ethical theories, yet they still derive theoretical inspiration from them. For instance, many environmental philosophies spring from the natural law tradition. Ecologists and environmentalists often perceive the natural ecosystem as orderly and harmonious, with each element contributing uniquely to the natural world. Preservation and non-intervention are two philosophies rooted in this tradition. Advocates believe that all living entities deserve ethical consideration, given each has its intrinsic good. Biocentric ethics exemplifies this philosophical standpoint. Virtue ethics underpins modern environmental perspectives, such as care for future generations, respect for all living entities, reverence for life, and a love of nature. As utilitarianism plays a pivotal role in shaping public policies, government regulations, and economic strategies, it remains instrumental in crafting environmental policies.

#### **2.4 Relevance of Traditional Ethical Theories to Environment**

Various ethical theories strive to offer systemic responses to personal and societal moral perspectives, spurred by the descriptive and normative approaches of ethics. Descriptive ethics explores our understanding of the ethical reasoning process or the empirical investigation of societal rules and behaviors as they currently exist. Conversely, normative ethics seeks to determine, through reasoning and moral arguments, the actions we genuinely

ought to undertake, rather than merely reflecting what people believe they should do. Ethical theories provide a basis to “understand,analyze,evaluate, and make ethical decisions”<sup>14</sup>. These theories help us to remove our “ethical blindness”<sup>15</sup> and be open to any possibility.

J.R.D Jardins provides at least four reasons<sup>16</sup> that show why traditional ethical theories are relevant in environmental ethics. These are as follows-

1. To solve any problem, a clear understanding and examination of disputes and conflicts is the first thing to be done. Philosophical ethics helps us regarding a better understanding and evaluation of environmental controversies and communication. Environmental issues are global in nature. So, for a reasoned dialogue, a common language is necessary which can be provided by ethical theories.
2. Ethical theories help to create a philosophical approach so that we can critically think about our problems, dilemmas, conflicts and make a proper decision. They help us to develop a systematic thinking pattern to understand ethical issues of our personal and social life.
3. Ethical theories guide us to evaluate a situation and give suggestions, recommendations or advice regarding the issue.
4. There is a claim that traditional ethical theories themselves are responsible to some extent for environmental crises. For this reason it is important to examine traditional ethical theories.

If we want to make the right decision for solving environmental issues and stop over exploitation of natural resources it is a must to understand ethical theories and moral beliefs

about these issues. There are different and conflicting opinions and arguments about these issues, so we need a guideline and motivation to reach an agreement on how to deal with these problems.<sup>17</sup> Moreover, environmentalists, scientists, ecologists and policy makers need a philosophical guideline to solve the environmental crises raised because of human activities. It helps them to make policies and strategies with a vision enriched with technological, scientific as well as philosophical knowledge. The most notable traditional ethical theories that have informed and continue to influence the development of environmental ethics include the natural law tradition, the utilitarian tradition, the deontological tradition, and virtue ethics. Each of these traditions carries its own unique philosophical assumptions and moral prescriptions, and each has its own particular implications for our understanding and treatment of the natural world.

The natural law tradition, for example, posits an intrinsic moral order in the universe, a ‘law’ that guides human behavior and informs human responsibilities towards the natural world. The utilitarian tradition, on the other hand, is primarily concerned with maximizing overall happiness and minimizing suffering, a principle that can be extended to include the wellbeing of the natural world. The deontological tradition emphasizes duty and moral obligation, providing a basis for recognizing moral duties towards the environment. Virtue ethics focuses on the development of good character and virtues, offering a path to cultivating an environmental ethic rooted in respect and care for nature.

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## **Chapter: Three**

### **Approaches in Contemporary Environmental Ethics**

In the contemporary context, the excessive exploitation of resources and burgeoning environmental crises have engendered a slew of critical ethical concerns. These issues, often overlooked in conventional ethical discourse, merit in-depth ethical evaluation. If we aim to make informed decisions that address environmental issues effectively and curtail the rampant over-exploitation of natural resources, understanding ethical theories and moral beliefs concerning these matters is paramount. Considering the diverse and conflicting opinions and arguments surrounding these issues, it is evident that we require comprehensive guidelines and robust motivation to foster consensus on how to navigate these challenges.

#### **3.1 Background of Environmental Ethics**

To facilitate nuanced, rational thought and decision-making, it became necessary to expand the scope of traditional ethical theories and pioneer novel ethical perspectives. Thus, environmental ethics emerged as a significant branch of applied ethics. This field studies the moral relationships between human beings and other constituents of the environment. It endeavors to establish a standard or norm that can guide us in understanding and shaping our interactions with the natural environment.

Environmental ethics systematically explores the relationship between humans and the natural world, offering practical guidelines that influence our behavior towards other components of the natural environment. This field serves as a valuable resource for scientists, ecologists, policymakers, and others, enabling the formulation of policies and strategies imbued with

technological, scientific, and philosophical knowledge. It offers a more holistic, nuanced approach to tackling environmental challenges, reinforcing the critical role that ethical considerations play in our ongoing relationship with the natural world.

Environmental ethics, as described by Environmentalist *Joseph R. DesJardins* in his book , *Environmental Ethics: An Introduction to Environmental Philosophy*(2001)-

"...a branch of philosophy engaged in the systematic study and evaluation of the normative judgments that are so much a part of environmentalism." <sup>1</sup>

In essence, it represents a distinct discipline within philosophical inquiry that scrutinizes and assesses the moral frameworks, ethical obligations, and normative judgments inherent to our relationship with and stance towards the environment. This discipline concerns itself with the exploration of value systems that define and shape our interactions with the natural world and the ethical considerations that emerge therein.

Canadian professor Bill Freedman(1950-2015) further elaborates upon this concept, stating,

"Environmental ethics deal with the responsibilities of present humans to both future generations and other species to ensure that the world will continue to function in an ecologically healthy way, and to provide adequate resources and livelihoods." <sup>2</sup>

This definition underscores the temporal and interspecies dimensions of environmental ethics, emphasizing our responsibilities not only towards the current state of our planet but also towards the generations yet to come. It speaks to our moral obligations to other species that inhabit Earth alongside us, highlighting the interconnectedness of life and the need for a holistic approach to sustainability.

The primary objective of environmental ethics is to facilitate a profound transformation in our perception and valuation of nature. It urges us to reconsider and transcend the instrumental view that conceives of nature solely as a depot of resources for human exploitation and economic gain. Instead, it advocates for recognizing and cherishing the inherent worth or intrinsic value that nature possesses, independent of its utilitarian benefits to humans. This intrinsic value embodies the unique essence and irreplaceability of the natural world. It holds that every entity in nature - from the smallest microorganism to the vast ecosystems - has its own inherent worth, not merely derived from its usefulness to human needs or desires. By advocating for this broader ethical outlook, environmental ethics seeks to extend the boundaries of our moral community to encompass non-human elements of nature, thereby cultivating a more empathetic, respectful, and sustainable attitude towards our shared environment.

### **3.2 The Emergence of Environmental Ethics**

The genesis of environmental ethics as a distinct academic discipline within philosophy can be traced back to the early 1970s. This development marked an intellectual shift that encouraged a profound re-evaluation of humanity's relationship with the natural environment. For a long time, the prevailing ethical systems largely focused on human-to-human relationships, often failing to give due consideration to the more significant context of our existence within the broader natural world.

Central to this growing discourse were issues such as the rights and moral standing of non-human elements of nature, including animals, plants, and even the broader ecosystems. Furthermore, there was a growing acknowledgment of the ethical responsibilities towards

future generations who stand to inherit the world we leave behind. These were areas not traditionally addressed by the existing ethical theories. As such, the emergence of environmental ethics filled a crucial gap in philosophical thinking, providing a new perspective that recognized the inherent value of the natural world beyond its utility to humans.

One of the pivotal figures often associated with the birth of environmental ethics is Aldo Leopold (1887-1948). A philosopher and ecologist, Leopold's writings, particularly his influential essay "The Land Ethic" in *A Sand County Almanac* (1949), brought about a seismic shift in how society conceptualized its relationship with nature. This piece marked a departure from an anthropocentric viewpoint, which places human beings at the center of moral concern, to a more holistic, non-anthropocentric ethic, thus paving the way for the evolution of environmental ethics.

For Leopold, the land was not merely an inert object or a passive resource, but -

"a fountain of energy flowing through a circuit of soils, plants, and animals".<sup>3</sup>

His work promoted a vision of the natural world as an intricate web of interconnections between inorganic elements and living beings. He argued that these constituents of nature should be treated with love and respect, recognizing that they too possess intrinsic value beyond their usefulness to humans. Leopold's land ethic has since become a touchstone for both holistic, ecocentric ethics and for proponents of individualistic or anthropocentric environmental ethics.

Another watershed moment in the evolution of environmental ethics was the publication of Rachel Carson's (1907-1964) book, *The Silent Spring*, in 1962. Carson, a marine biologist and

conservationist, used her book to expose the darker side of scientific and technological advancements. She boldly challenged the popular perception that scientific progress is inherently beneficial. Using the example of pesticide use, particularly DDT, Carson demonstrated how scientific progress could, paradoxically, be more destructive than beneficial. She argued that our scientific inventions and discoveries often bring unintended harm to both humans and the natural environment. Carson's *The Silent Spring* (1962) is widely credited with catalyzing the environmental movement in the United States. The book's groundbreaking impact was such that it spurred a nationwide awakening, making many Americans conscious of the complex interconnections between human beings and the natural world. The ripple effect of this consciousness led to a significant re-evaluation of the impact of human actions on the natural environment.

A significant outcome of the influence exerted by *The Silent Spring* (1962) was the subsequent ban on the use of DDT in agriculture by the U.S. government. This ban played a key role in the recovery of the bald eagle, an endangered bird species, thus demonstrating the tangible impact of environmental ethics and advocacy on policy decisions and wildlife conservation.

Religious or spiritual sentiment also played an essential role in environmental ethics. Historian of science Lynn White Jr. 's "The Historical Roots of Our Ecologic Crisis" (1967), published in the journal *Science* , is a pivotal document in the development of environmental philosophy. In this work, he argued that the human-nature relationship is deeply conditioned by religious values and practices. He tried to show the connections between environmental destruction and the Judaic-Christian religion. According to the Judaic-Christian belief, humans received the authority to dominate and subdue the earth from God's will as described in holy scripture.

"What we do about ecology depends on our ideas of the man-nature relationship. More science and more technology are not going to get us out of the present ecological crisis until we find a new religion, or rethink our old one."<sup>4</sup>

White argued that environmental problems cannot be solved solely by scientific and technological knowledge and inventions because environmental problems are social and moral issues. Thus, White presents one of the central claims of environmental ethics - there can be no purely technical solution to environmental problems.<sup>5</sup> It is not illogical to say that people's attitudes towards nature are significantly affected by religious concepts of humans' position in relation to nature, which can be extremely negative. But there is hope that religion can be harnessed to motivate people towards responsible behavior regarding the natural environment, a process that has already begun.

The father of American conservation and the founder of the Sierra Club, John Muir, Saint Francis of Assisi, Henry David Thoreau, and Ralph Waldo Emerson are some of the Western thinkers who made important contributions to the ethical consideration of nature. Australian philosopher Richard Routley argued that traditional ethical theories are anthropocentric and embodied in the dominant Western view, leading to human chauvinism, just another form of class chauvinism based on blind class loyalty or prejudice. Routley criticized traditional Western moral thinking, arguing that its main approaches failed to recognize the intrinsic value of natural things and should be reconstructed. These thinkers were motivated by an ethical and aesthetic response to nature, rejecting the valuation of natural things solely on economic terms. They advocated for an appreciation and conservation of things that are 'natural, wild, and free'.

Thanks to the pioneering work of these thinkers, philosophers and political theorists began to focus more intently on environmental issues. The historical analyses done by White and John Passmore, combined with scientists' expositions of the facts about resource exploitation, species extinction, climate change, pollution, and environmental degradation, paved the way for environmental ethics.

Environmental ethical theories explain the norms or standards to which we have responsibilities, why these responsibilities are bestowed upon us, and how these responsibilities are justified. Environmental ethics will help us think about the issue of resource exploitation and environmental crises in a more systematic way, and allow for more careful investigation of the ethical and philosophical issues involved in these problems. Most people acknowledge that polluting the environment, over-exploiting natural resources, and over-consuming resources are wrong. But what is the basis for this acknowledgment? Is it just because this type of behavior is against sustainability, or is it because non-human elements of nature have their own values? Environmental ethics attempts to answer these questions. At its core, environmental ethics attempts to answer two basic moral questions: What kinds of things are intrinsically good or bad? And what makes an action right or wrong?

### **3.3 Approaches in Contemporary Environmental Ethics**

The discipline of environmental ethics arose as a direct counterpoint to the anthropocentrism that pervades traditional ethical frameworks. Its emergence signaled a profound shift in ethical thinking, opening the way for a more inclusive and holistic consideration of the natural world and non-human entities. Despite this departure, however, environmental ethics does not



completely sever ties with its intellectual roots. Instead, it continues to draw upon the theoretical insights and analytical tools provided by traditional ethics, using them as springboards to arrive at more encompassing ethical positions.

The image presented by scientists and ecologists of the environmental crisis and resource exploitation has made us aware of the dangers posed to human beings. We are no longer in a state of denial about our role as the main contributors to these destructive actions. The way we are treating the environment raises ethical concerns because we are directly responsible for the moral harm done to nature. Our actions cause spiritual, aesthetic, and cultural harm to the environment. From this feeling of guilt and concern for the environment, many environmental philosophers are attempting to provide a single systematic ethical theory or approach.

### **3.3.1 Anthropocentric Approach**

Anthropocentrism positions humans as the paramount concern, often at the expense of other sentient beings or the environment as a whole. It is a perspective that tends to undervalue the inherent worth of the natural world, reducing it merely to a resource base for human needs and desires. This inherent anthropocentrism has often left traditional ethical theories wanting when it comes to addressing the pressing and complex environmental issues we currently face.

According to the anthropocentric approach, humans are at the center of moral considerations. Humans are seen as more valuable and unique than any other components of the natural world. This view values other species and ecosystems in terms of their usefulness to humans. The anthropocentric approach takes different forms. Some advocates call for unlimited exploitation for economic growth. They argue that natural resources are unlimited because

new stocks can be discovered. As natural resources are limitless and humans are entitled to take whatever they need from the environment, these advocates claim that humans have the right to dominate nature. They maintain the right to exploit nature as much as they want because they consider humans superior to other species. Exploitation of natural resources is seen as beneficial for economic growth, and is thus allowed as long as no humans are hurt in the process. Another group speaks of the wise use of natural resources. This group also treats nature as a resource but advocates for efficient use of these resources. President Theodore Roosevelt's chief of forestry, Gifford Pinchot(1865-1946), is a proponent of this wise use approach. He suggests that we must not waste our resources and should conserve them for future generations. This is primarily an economic approach to nature.

There is a debate among environmentalists regarding the treatment of resources. Conservation and preservation are two subgroups of the anthropocentric approach. According to conservationists, natural resources are limited. Therefore, we should be willing to change our consumerist lifestyle so that scarce, valuable natural resources can be saved for aesthetic, spiritual purposes for future generations. Conservationists believe we should conserve natural resources because they are more valuable than our consumerist tendencies and are necessary for a beautiful and healthy world. Conservationists think that the most valuable natural resources should not be used only for private profit, but should be accessible to all. In contrast, preservationists believe that untouched nature is best and should be preserved as it always has been. They believe nature should be preserved for its own value.

The anthropocentric approach is criticized because it is human-centered and values other non-human elements based on human usefulness. It resembles the utilitarian approach of traditional anthropocentric ethics. This approach views nature merely as a source of resources

which can be used for human interests and can be manipulated. On one hand, it underestimates the interconnectedness of nature. On the other hand, it treats earth as 'dead', contrary to the ecological fact that earth is teeming with living organisms. It treats nature in a mechanistic way under the guise of utilitarian economic calculations. However, humans and earth share a closer and deeper relationship beyond a mechanistic conception of earth. The earth is not 'dead', rather it is an organism which possesses a certain kind or degree of life which we should respect.

### **3.3.2 Biocentric Approach**

The term 'Biocentric' means life-centered. Biocentric ethics is a theory centered on the intrinsic value of life. According to this theory, all life has an intrinsic value and thus deserves respect. Humans are unique and special species but not more worthy than other living entities as all species have intrinsic value. This view rejects discrimination against other species. It is a non-anthropocentric approach. This belief is also found in the natural law tradition of traditional ethics.

German born philosopher and theologian Albert Schweitzer (1875-1965), in his article "Reverence for Life", published in (1933), presents a principle called 'Reverence for life'. In this principle, he upholds his ethic which can be considered as an early version of contemporary biocentric ethics. In a world full of conflicts, reverence for life is an attitude that can offer hope. Reverence for life describes a character trait or a moral virtue rather than a rule of action. It helps us live a moral life. It is a belief that re-establishes the connection between the goodness of life and the goodness of nature. Schweitzer called this 'world-and-life-affirmation'. He prefers a world full of life. As he said,

"I am life which wills to live, in the midst of life which wills to live" .<sup>6</sup>

One of the best philosophically sophisticated and fully developed versions of biocentric ethics in contemporary times is given by American philosopher and environmentalist Paul Taylor in his book *Respect for Nature* (1986). Taylor carefully explains why it is reasonable to adopt the attitude of respect for nature. He sees the relationship is based on the inherent worth of all life. According to Taylor,

"The central tenet of the theory of environmental ethics...is that actions are right and character traits are morally good in virtue of their expressing or embodying a certain ultimate moral attitude, which I call respect for Nature" .<sup>7</sup>

Taylor carefully moves from a descriptive claim to a normative one. He introduces the concept of 'inherent worth,' which leads us to two moral judgments: first, that those things which have inherent worth deserve moral consideration, and second, that all moral agents have duties to respect the own good of those things. The claim that living things have inherent worth has to be understood in reference to the biocentric outlook. Only if we treat all living things from a biocentric outlook will it be a sensible and consistent way. The biocentric outlook of nature revolves around 'four central beliefs' <sup>8</sup>:

1. Humans are members of the earth's community of life.
2. All species, including humans, are part of a system of interdependence.
3. Individual organisms are the teleological centers of life.
4. It denies human superiority.

Taylor believes that all rational and factually informed people should adopt a biocentric outlook as a way of conceiving of nature because it is based on reasonable scientific evidence. Recognizing the inherent worth of all living things means adopting the attitude of respect for nature. Respect for nature is an attitude that motivates one to promote and protect the good of other living things because it is their good, not due to some other dispositions. This attitude accepts the good of others as a reason for one's own action.

Critics have remarked that Schweitzer's 'Reverence for Life' is overly romantic and naive. Even though Taylor was careful to defend his biocentric ethics, some serious challenges were raised against his conclusions. Change or destruction is wrong if it results from human interference. However, humans are also part of the biotic community, and like any other living organism, they also fulfill their needs from the natural world. Therefore, any changes brought about by humans in this process should not be considered wrong or have ethical implications. Taylor's outlook is anthropocentric but individualistic. Like any other individualistic outlook, he emphasizes individual organisms. He advocates only for duty and respect for individual living beings. Any direct duty to ecosystems, non living objects, or species was excluded. Taylor's ethics tends to assume an adversarial relationship between individuals. He assumes that conflict and competition are natural states of life in the process of attaining each one's telos. How to resolve these conflicts is a challenge for biocentric ethics.<sup>9</sup>

### **3.3.3 Ecocentric Approach**

Ecocentric approach to environmental ethics develops from the belief that if we want to understand and value nature, ecology has to play an elementary role. This approach believes that there are direct or indirect connections among species within ecosystems. Holism is the

unifying idea for ecocentric theories. Holism suggests that nature is a complete and privileged system and as a whole organism it has its own value. The essence of holism is that the whole is more than the sum of its parts. Ethical holism suggests that moral considerability should be extended to wholes. It argues that ethical standing can also be extended to relevant kinds of non-individuals. Right and wrong are functions of what is good or bad for the whole community, not for its constituent members.<sup>10</sup>

American philosopher and environmentalist Aldo Leopold's (1887-1948) "Land Ethic" is a great example of ethical holism, which can be considered as the first systematic presentation of an ecocentric ethics. He was the first person who called for a radical rethinking of ethics in the light of new science called ecology and his famous article "The Land Ethic" in *Sand County Almanac* (1949). The new perspective of 'ecological conscience'<sup>11</sup> was fully developed and presented in the late 1940s as the land ethic. The ecological conscience represents a shift from a view of nature as only having instrumental value to one that recognizes an intrinsic worth in the natural system. Ecological conscience tells us that humans are also members of the biotic community, not conquerors. It shifts moral consideration away from individuals to biotic wholes, symbolized as the land. As Leopold writes,

"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends to be otherwise."<sup>12</sup>

Leopold suggests to think like a mountain in his essay "Thinking like a Mountain" in *Sand County Almanac* (1949), to think from an ecological perspective to maintain the balance of nature and its interconnectedness. Ecological understanding opposes the mid-century view of

land as mere property, which privileges humans without having any obligations. For Leopold, Land is a living organism that can be healthy or unhealthy, injured or killed. As Leopold said,

“Land, then, is not merely soil; it is a fountain of energy flowing through a circuit of soils, plants, and animals.”<sup>13</sup>

Leopold uses the image of a ‘biotic pyramid’ or ‘land pyramid’ to help us understand the nature of the biotic community. The land pyramid is a ‘highly organized structure’ of biotic and abiotic elements through which solar energy flows. In this pyramid, soil is at the bottom, followed by a plant layer, an insect layer, a bird and rodent layer, and carnivores on top. In this model, species are layered based on the food chain. Land ethic is non-anthropocentric, which tells us that all living things, including humans, must be considered as members of the ecological community. In a harmonious and stable relationship, every member of the community is a resource for the continuation of the lives of others. Resources are used, but always recycled through the system. The community is characterized by countless of these interdependencies. Its health is characterized by its long-term integrity and stability.<sup>14</sup>

“Each species, including ourselves, is a link in many chains. The pyramid is a tangle of chains so complex as to seem disorderly, yet the stability of the system proves it to be a highly organized structure. Its functioning depends on the co-operation and competition of its diverse parts.”<sup>15</sup>

Land ethics appears to be an attractive philosophical option because it offers a fairly comprehensive perspective. It provides a decision process for most people regarding environmental issues. However, the naturalistic fallacy arises when Leopold moves from facts of ecology to values. The idea that something is good or wrong solely on the basis of a

description of what is natural is rejected by many philosophers because there exists a logical gap between statements of fact and judgments of value—between is and ought. Ecological facts, in and of themselves, do not prove that ecological integrity and stability are ethical values. The most serious criticism of land ethics is that it condones sacrificing the good of individuals to the good of the whole; it is justifiable to sacrifice individual members for the good of the whole community. Leopold describes humans as members of the biotic community. So, if needed, will human individuals be sacrificed to preserve the integrity, stability, and beauty of the community? A writer and activist Marti Kheel called ethical holism totalitarian, and philosopher Eric Karts has claimed that it subverts respect for individuals. American philosopher Tom Regan labeled Leopold's approach as environmental fascism.<sup>16</sup>

American philosopher J. Baird Callicott (1941-present) has written in defense of Leopold's land ethic. He showed that in the land ethic, Leopold suggests that the ethical revolution implicit in his extension of ethics to the land can come about only alongside a radical change in human psychology. This change in psychology, brought about through moral and ecological education, might bridge the gap between is and ought.<sup>17</sup> Leopold wrote in the Land Ethic,

“It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, I of course mean something far broader than mere economic value; I mean value in the philosophical sense.”<sup>18</sup>



The natural facts of ecology do not lead directly to ethical conclusions. They lead instead to a change of attitude that can in turn lead to a change in ethical evaluations. We value the preservation of an ecosystem not simply because it is natural or normal but because we love it, respect it, and admire it.<sup>19</sup> In this view, the principle of ‘integrity and stability’ is not a straightforward normative principle, rather it is an exhortation to get people to think in a certain way. It challenges the economic way of thinking and provides an alternative way of thinking about the human-nature relationship.

### **3.3.4 Radical Approaches**

Deep ecology, ecofeminism, and social ecology are considered radical environmental movements. These trends believe that environmental problems arise from social and cultural factors. To solve these problems and halt natural resource exploitation, they argue that we need radical changes rather than mere economic reformations, as the latter only offer temporary solutions based on the immediate effects of environmental crises. Deep ecology criticizes the contemporary worldview as too narrow due to its anthropocentric focus. Meanwhile, ecofeminism asserts that a form of human domination is responsible for ecological and environmental destruction. As such, understanding the general pattern of human domination over other humans is key to understanding the domination of nature.

#### **3.3.4.1 Deep Ecology**

In contemporary times, the approach of deep ecology has been developed in the writings of Arne Naess, Bill Devall, and George Sessions. Deep ecology criticizes the current dominant worldview as anthropocentric and strives to build a holistic and non-anthropocentric philosophical worldview.

Norwegian philosopher Arne Naess laid the foundation of deep ecology at a conference held in Bucharest in 1972. He was greatly influenced by Rachel Carson's *Silent Spring* (1962). In his 1973 article "The shallow and the deep, long-range ecology movements," he distinguished between deep ecology and shallow ecology. He viewed shallow ecology as an environmental perspective that is anthropocentric, with the objective of protecting the consumerist lifestyle of people in 'well-off' countries. In contrast, deep ecology is ecocentric, which considers humans as morally equal and interdependent with other life forms of the ecosystem. According to his 'biocentric egalitarianism' <sup>20</sup>, all life forms have intrinsic value and an equal right to live and flourish. It views nature from a holistic approach, as a vast community which must be valued for its own sake and be protected. Naess believes that the solution to the devastated environment caused by human activities requires changes in policies, economy, technology, and ideology. For these changes to happen, we need a mindset that appreciates the quality of life more than a materialistic lifestyle.

Along with American environmentalist George Sessions, Naess proposed eight principles, applicable to all species including human society, required for the flourishing of human life and all other life forms. They developed the deep ecology platform as 'a statement of shared principles' <sup>21</sup> that is general enough to allow for a diversity of philosophical interpretations. It distinctly differentiates deep ecology from shallow ecology with regard to practical matters.

These principles are as follows:

1. The flourishing of human and nonhuman life on earth has intrinsic value. The value of nonhuman life-forms is independent of the usefulness they may have for narrow human purposes.

2. The richness and diversity of life-forms are values in themselves and contribute to the flourishing of human and nonhuman life on earth.
3. Humans have no right to reduce this richness and diversity except to satisfy vital needs.
4. Present human interference with the nonhuman world is excessive, and the situation is rapidly worsening.
5. The flourishing of human life and cultures is compatible with a substantial decrease in the human population. The flourishing of nonhuman life requires such a decrease.
6. Significant changes for the better require changes in policies, affecting basic economic, technological, and ideological structures.
7. The ideological change is mainly that of appreciating life quality (dwelling in situations of intrinsic value) rather than adhering to a high standard of living. There will be a profound awareness of the difference between big and great.
8. Those who subscribe to the foregoing points have an obligation, either directly or indirectly, to participate in the attempt to implement the necessary changes.<sup>22</sup>

This platform is presented in Devall and Sessions, *Deep Ecology: Living As If Nature Mattered*, Ch. 5, as the 'basic principles' of Deep Ecology. These principles are also presented as a 'platform' in Naess, *Ecology, Community, and Lifestyle*, Ch. 1.

The ethic of deep ecology focuses on two ultimate norms: self-realization and biocentric equality. Self-realization is a process that erases the boundaries between the individual self

and the ecosystem. Biocentric equality recognizes that all organisms and beings have equal intrinsic worth.<sup>23</sup> According to deep ecology, human beings should live in harmony with nature to realize their selves in relation to nonhuman elements of nature. Humans are not isolated entities, they are defined by their interactions and relations with nature.

#### **3.3.4.2 Ecofeminism**

Recently, ecofeminism has developed among environmental philosophers. It presents a variety of approaches that see a connection between social domination and the domination of nature. The relationship between feminism and ecologism gained traction in the mid-1970s. In 1974, French author, environmentalist and feminist Françoise d'Eubonne used the term ecofeminism for the first time. Ecofeminism, which is ecocentric, believes in ecological interdependence within ecosystems, attributing intrinsic value to both human and nonhuman elements. It rejects the anthropocentric attitude of the dominant worldview towards nature. Ecofeminism argues there is a link between gender-based domination of women and environmental problems. Just as men have subordinated women, human beings have dominated and subordinated the natural world. In the book *The Death of Nature (1980)*, American ecofeminist philosopher and historian of science Carolyn Merchant draws parallels between patriarchy and the exploitation of nature.<sup>24</sup> Ecofeminism posits that both gender inequality and ecological exploitation arise from the same problematic mindset. Therefore, these two issues can be resolved together.

American ecofeminist Karen Warren(1947-2020) uses the term 'logic of domination' to describe this pattern of domination. According to this logic, when two groups are distinguished based on certain characteristics, a value hierarchy is attributed to these

characteristics, and the subordination of one group is justified by its lack of the superior characteristic.<sup>26</sup> Traits such as reason, independence, and self-determination are deemed masculine, while emotion, compassion, friendship, and care are seen as feminine. Men are considered reasonable and active, while women are viewed as emotional and passive. For a patriarchal society, masculine traits are superior to feminine ones and carry higher moral values. This gender-based hierarchy encourages the oppression of women by men. Throughout history, from the works of Aristotle to Descartes to the modern era, it's evident that nature, often viewed as chaotic, uncontrollable, and dangerous, has been compared to women. As nature is seen to possess feminine qualities, its exploitation is justified by most men.

Feminists reject this type of thinking and believe that women can escape gender-based domination only if traditional gender roles are abolished. Ecofeminism derives its ethical basis primarily from rights principles and utilitarian approaches. Recently, some feminists introduced a new concept in ethics called 'ethics of care'. Advocates of this perspective, including American feminist Carol Gilligan, American philosopher Nel Noddings, and American philosopher Sara Roddick, emphasize cooperation, relationships, and care for others, promoting feminist care ethics as a moral guide based on both emotions and abstract principles.

#### **3.3.4.3 Social Ecology**

Another radical approach in environmental ethics is social ecology. However, it is anthropocentric in nature. Its roots are in the social justice movement. American social theorist Murray Bookchin (1921-2006) is the founder of the social ecology movement,

beginning his work on this topic in the 1960s. For Bookchin and other social ecologists, environmental problems arise from unjust and hierarchical social, economic, and political relations in society. They contend that to solve environmental problems, social problems must be addressed.

Bookchin argues that in a hierarchical social system, there are at least two groups, one of which holds power over the other because it is deemed superior and can command obedience from the inferior group. The superior group manipulates the inferior group for its own purposes and prevents the inferior group from pursuing their interests. This type of hierarchical attitude also encourages the exploitation and damage of the natural environment. Humans consider themselves superior to nature and aim to dominate and control it just as the superior group does with the inferior group. People in such a society view the domination and control of nature as a measure of human success.

### **3.3.5 Pluralistic Approach**

Most of the major approaches of environmental philosophy are monistic in nature as they try to explain environmental problems through a universal ethical framework. In contrast, these pluralistic approaches try to synchronize different theories and values to solve problems in a practical way. Pragmatism is such an approach that pursues different ethical values based on problems to achieve practical goals. American philosophers Charles Sanders Peirce(1839-1914), William James(1842-1910), and John Dewey(1859-1952), developed pragmatism to overcome the problems of monistic moral ethics which tries to provide a universal ethical framework to all ethical problems and believes that there is the only one accurate way to look into all ethical problems. Contrary to monistic ethical view pragmatism adopts moral

pluralism to focus on practical goals. Pragmatism is a shift of attention from what is true to what is practical. Being pragmatic means being practical and aiming for something achievable rather than something ideal which is unattainable. A pragmatic person thinks realistically, and sensibly, who is not committed to a single or absolute principle. He will be ready to compromise for the betterment.

Environmental pragmatism is a middle ground between pluralism and monism. Its emphasis on realistic and pragmatic action policy made it one of the influential approaches of contemporary environmental ethics. It is respectful towards scientific evidence and advocates democratic deliberation. Environmental pragmatists understand that practical reasoning may not always offer unambiguous advice. They are committed to engage in free and open procedures for deciding rather than seeking the single true decision. Bryan Norton is one of the environmental pragmatists who believes that people with different perceptions can work together for the same goals. Another significant environmental pragmatic Ben Minteer has developed a 'civic philosophy'<sup>27</sup> which puts social, economic and political concerns in the center of environmental ethics. He argues for a well functioning democratic civil society for environmental protection and to value nature.<sup>28</sup>

### **3.3.6 Ecological Sustainability Approach**

Now the question arises, which among these approaches is ethically and philosophically the most valid or true? It seems that the field of environmental ethics is a battlefield of conflicting dualisms between anthropocentrism and non-anthropocentrism, holism and individualism, intrinsic value and instrumental value. Although there are some conflicting opinions regarding

environmental problems and solutions, all of these approaches agree that classical economics, whose ethical view is the preference utilitarianism, have to be rejected. Despite differences in their explanations, none of these approaches disagree that valuing the natural world as a mere resource to be manipulated and consumed to satisfy short-term consumer preferences expressed in the economic market has resulted in substantial environmental destruction. Philosophers have offered various prescriptions for environmental problems, but all agree that the production capacity of natural ecosystems is limited. There are limits to the capacity of assimilating humane and industrial pollutants and waste. We, as humans, should act with less arrogance and more humility, if not for future generations or other beings, then for our own sake. All these approaches agree on what should be done but disagree on why it should be done. Among these approaches, none has all the right answers in every situation, but each has something important to contribute to environmental ethics. Each provides a different perspective from which we can understand the value of humans and their place within nature. However, without a determinate procedure for decision-making, we seem to lack any guide for making decisions.<sup>29</sup> On this note, the Ecological Sustainability approach can be the guide. Perhaps ecological sustainability is the best proposal in response to the environmental crisis. Though it is anthropocentric in nature, it goes beyond human interests to protect natural resources and the environment.

Anthropocentrism can be classified as strong anthropocentrism and weak anthropocentrism. Strong anthropocentrism values nonhuman elements only for human purpose, that is, nonhuman elements have only instrumental value. But weak anthropocentrism believes that nonhuman elements also have intrinsic value. It advocates for wise use of resources for the fulfillment of human needs but does not support unsustainable overexploitation of natural



resources. This approach is in that sense, weak anthropocentric which attributes intrinsic value to humans as well as nonhuman elements of nature. Sustainable development approach should be cultivated with reference to weak anthropocentrism instead of strong sense of anthropocentrism.

The sustainability worldview acknowledges that humans must have access to vital resources, but the exploitation of these necessities should be governed by appropriate ecological, intrinsic, and aesthetic values.<sup>30</sup> Sustainable development refers to a change of perception. It seeks to balance the needs of present and future generations, between developing and industrialized countries, and between humans and ecosystems. The word 'sustainability' derives from the Latin word 'sustinere,' which means to continue over a long period of time. Sustainable development is a normative concept based on people's wants, desires, and values. The idea of sustainability is not new, but the concept of sustainable development gained popularity after the Brundtland Commission's report in 1987, with the motto, "Our Common Future." They defined sustainable development as -

"...development that meets the needs of the present without compromising the ability of future generations to meet their own needs."<sup>31</sup>

Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment. It means we should use our resources carefully to meet the needs of our present generation without compromising the ability of future generations to meet their own needs. It proposes an alternative circular model of economy with a different ideology, which is called the Sustainable Economy or Ecological Economy. In an ecologically sustainable economy, natural goods and services should be utilized only in ways that do not

compromise their future availability and do not endanger the survival of species or natural ecosystems.<sup>32</sup>A traditional market economy is based on two basic questions regarding production and distribution. First, resources are allocated to those uses for which users are willing to pay the most. Second, goods and services are distributed according to consumer demand. The sustainable economy adds another dimension to the traditional market-based economy. It is concerned with the rate of resource flow through the economy . Public policy in this alternative economic model involves:

1. Making production decisions involving renewable natural resources based on the replenishment rate of these resources.
2. Limiting decisions involving non-renewable resources by the rate at which alternatives are developed or lost opportunities are compensated.
3. Extending responsibility for products beyond their lifecycle. The optimal level of such things as waste and pollution will be determined by Earth's capacity to assimilate, not by the willingness to pay by the producers .

The aim of sustainable development is the most productive and efficient use of resources compatible with the ability of the Earth's ecosphere to provide consistent, stable, and long-term productivity. If we want to protect nature and stop exploiting natural resources, we need long-term policies and practices. In the long term, sustainable development calls for population policies that aim for a stable population size. In the shorter term, it requires a shift from consumption patterns of modern industrialized societies.<sup>33</sup>

Sustainable development is anthropocentric to some extent because it advocates the use of natural resources for human purposes. This approach prioritizes human good but also assumes

responsibility to take care of the natural environment and restrain from irresponsibly destructive behavior towards nature. Humans are entitled to use natural resources to fulfill their needs but are also given the responsibility to care for them as stewards of natural resources and the environment. Like a good shepherd, humans should use resources in such a way that they can be sustained without degradation or destruction. Humans have dominion over the natural world but are not entitled to destroy it, because dominion does not equal domination.

Sustainable development is possible if people raise awareness from personal to local to global levels. We have to spread the message that we will use resources to fulfill our needs and interests but will control our greed for a consumerist lifestyle and economic gain. We will take care of resources for us and our future generations for a liveable and healthy planet. We are responsible for the future of the natural world on which we depend. If we settle into the habit of aligning economic decisions with environmental laws, we have an excellent chance of creating a society that our children can be proud of and in which our great-great-grandchildren will enjoy a more satisfying life than we can imagine.<sup>34</sup>

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## **Chapter: Four**

# **Sustainable Development for Protecting the Rights of Future Generations**

Advancements in modern science and technology have provided us with a unique capability to shape our future. These progressions have furnished us with the tools and knowledge needed to predict, to a certain degree, the potential fallout of our current actions on the wellbeing and survival of future generations. From forecasting the repercussions of climate change to estimating the pace of resource exhaustion, we possess a heightened awareness of the path we are currently treading. Disappointingly, in spite of this abundance of knowledge and insight, we continue on a course of relentless and wasteful exploitation of our natural resources. We persist in polluting our environment, precipitating climate change, and triggering a series of other environmental catastrophes that threaten the continuity of life on our planet. This stark discrepancy between our knowledge and our actions presents a disconcerting ethical dilemma and a colossal failing of our generation.

The consideration of our duties and responsibilities towards future generations opens a Pandora's box of intricate and compelling ethical questions. These debates span across a wide range of disciplines, including philosophy, ethics, environmental science, policy-making, and more. In the upcoming discussion, I intend to delve deeper into these ethical debates, utilizing the insights and perspectives of contemporary environmentalists and scholars. The aim is to illuminate the magnitude of the challenge we confront and to investigate potential avenues

towards crafting a future that embodies the principles of sustainability and intergenerational justice.

#### **4.1 Necessity of Sustainable Development for Future Generations**

The definition of sustainable development can vary based on literature, context, and time. One of the best definitions of sustainable development is given by the American Society of Civil Engineers (ASCE), as follows:

"Sustainable development is a process of change in which the direction of investment, the orientation of technology, the allocation of resources, and the development and functioning of institutions [are directed] to meet present needs and aspirations without endangering the capacity of natural systems to absorb the effects of human activities, without compromising the ability of future generations to meet their own needs and aspirations".<sup>1</sup>

Another definition, provided by David McCloskey, a professor of Sociology at Seattle University, states:

"Actions are sustainable if: There is a balance between resources used and resources regenerated. Resources are as clean or cleaner at end use as at the beginning. The viability, integrity, and diversity of natural systems are restored and maintained. They lead to enhanced local and regional self-reliance. They help create and maintain community and a culture of place. Each generation preserves the legacies of future generations."<sup>2</sup>

Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment. The goal of sustainable development is the most productive and efficient use of resources compatible with the ability of the Earth's ecosphere to provide consistent, stable, and long-term productivity. We should use our resources carefully to meet the needs of our present generation without compromising the ability of future generations to meet their own needs.<sup>39</sup> Sustainable development is a long-term societal goal that can be considered a form of intergenerational justice. It's concerned with the fair distribution of resources among generations. It emphasizes balancing environmental, economic, and social actions so that while fulfilling present needs, we do not exploit natural resources to such an extent that we deprive future generations of their opportunities to fulfill their needs and enjoy the flourishing of life. All definitions and explanations of sustainable development guide us towards the responsibilities we have to future generations.

Our present-day choices and initiatives carry extensive implications that will undoubtedly reverberate throughout time and shape the environment and socio-economic conditions in which future generations will find themselves. Central to these choices is the guiding principle of sustainability and the essence of considering the future in our current actions and decisions. In the sphere of sustainable development, one of the most salient and often-debated concepts is that of intergenerational equity.

Intergenerational equity puts forth the idea that we, as the present generation, bear a distinct obligation and duty of care toward those who will inherit the earth after us. Essentially, it underscores the moral responsibility we hold in ensuring that our current actions do not lead to adverse long-term effects that could compromise the ability of future generations to fulfill their needs.



In today's interconnected world, our daily routines, consumption habits, and lifestyle choices are deeply embedded in complex processes such as agriculture and industrial production. Every passing moment, we are dependent on the outcomes of these sectors. We rely on the agricultural sector for the food we consume and the industrial sector for a wide array of products that enhance the convenience and efficiency of our daily lives. However, the very existence and functioning of these sectors hinge upon the constant exploitation of our planet's natural resources.

Unfortunately, our approach to utilizing these resources has been alarmingly reckless. Instead of implementing prudent resource management strategies, we have permitted unchecked overexploitation and depletion to become a common practice. This approach not only endangers our present ability to sustain our lifestyles but also raises severe questions about the capacity of future generations to satisfy their needs. Our shortsightedness and dismissal of the finite nature of these resources signal a troubling indifference toward our obligations to succeeding generations.

#### **4.2 Obligations to Future Generations**

Despite knowing the potential consequences, we often behave in ways that risk doing irreversible harm to future generations, or it can be said that we struggle to control our actions and practices that may negatively impact them. Our actions raise a host of meta-ethical, normative, and practical moral questions regarding our responsibility to future generations.<sup>4</sup> These questions encompass a range of topics: What moral categories should be applied to our relationship with future generations? Do we possess the knowledge and power to accurately anticipate the interests, needs, and preferences of future generations? What constitutes a good

life, and are we capable of planning and acting effectively to achieve desired results or avoid projected problems? Do we hold obligations, duties or responsibilities to those who do not exist in the present? Do future generations have rights, or is it merely our responsibility to consider them? Do they require our care? Should present generations make sacrifices for the well-being of future generations? Do all presently living individuals bear the same degree of responsibility towards future generations? Are future persons considered part of our moral community? Will future generations lament the loss of things they've never known (e.g., wildlife, wilderness, etc.)? Lastly, what prospects exist for educating and motivating members of the present generation to fulfill these duties towards posterity?

Different thinkers answer these questions in a variety of ways. Some argue against the obligations to future generations. Environmentalist Joseph R. DesJardins, in his notable book *Environmental Ethics: An Introduction to Environmental Philosophy*(2001), has categorized arguments against the obligation or responsibility to future generations into two sections - the 'argument from ignorance' and 'disappearing beneficiaries'.<sup>5</sup>

The argument from ignorance posits that since we do not share a common life with future generations at present and know little about their needs and interests, we should not be expected to sacrifice our real needs for their assumed ones. Thus, we bear no responsibility to future generations. Advocates of this argument maintain that future generations do not exist today. They are not actual but contingent beings, anticipated to exist in the future. We do not know who they will be, or even if they will come to be at all. We are ignorant about the number of future people, their lifestyle, and their way of living. We cannot be sure whether they will share our social ideals. And even if they do, we do not know how many generations will be members of our moral community.<sup>6</sup>

American political and legal philosopher Joel Feinberg(1926-2004) responded to the 'argument of ignorance' in his article "The Rights of Animals and Unborn Generations" (1974). He countered that some people deny the rights of future generations due to 'a fear of falling into obscure metaphysics' <sup>7</sup> . Future people, who exist in the remote future, are unidentifiable beings. They are 'potential' persons for whom a significant number of causally necessary events and a considerable amount of time must pass before they truly exist. However, their existence is not uncertain. Our collective posterity will transition from being potential to actual as part of the normal course of events. It is merely a matter of temporal remoteness and time for the distant human future to come into existence. The argument of ignorance insists that in the present, there is no specific individual to whom we can attribute responsibilities or who can claim rights over us. Feinberg argues that though they do not have any identifiable characteristics presently and we cannot envision them properly, it is certain they will inhabit this very planet and will need fresh air, clean water, energy, and resources for their survival. He asserts -

"...whoever these human beings may turn out to be, and whatever they might reasonably be expected to be like, they will have interests that we can affect, for better or worse, right now.... The identity of the owner of these interests is now necessarily obscure, but the fact of their interest ownership is crystal clear, and that is all necessary to certify the coherence of present talk about their rights.”<sup>8</sup>

In response to the 'argument from ignorance', a simple logical assertion can be made: though we know little about future generations, we have a reasonably good understanding of what is necessary for a decent life. This would minimally include an adequate supply of clean air and water, a moderate climate, protection from poisons and diseases, and resources to produce

products and services, among other things. The tastes and preferences of future generations may vary in the arts or literature, but there are certain fundamental needs that all humans must fulfill to lead a life.

The 'disappearing beneficiaries' argument posits that we bear no responsibilities to future generations, and it is even meaningless to discuss such responsibilities because there are no specific individuals to whom these responsibilities are directed. Proponents of this argument base their views on the utilitarian principle of 'maximum happiness' and the deontological ethical tradition. According to this argument, future people are not real but contingent; therefore, their existence is not necessary. In other words, we have no responsibility to bring them into the world, let alone any other responsibilities.<sup>9</sup>

Philosopher Annette Baier responded to the 'disappearing beneficiaries' argument in "For the Sake of Future Generations" (1984). If we bring future generations into existence, they would lead wrongful lives due to our actions. They would blame us for creating a world full of suffering, and it would arguably be better if they were not brought into existence at all. It's not hard to conceive a situation where it is better not to be born rather than to suffer. Overpopulated poor countries could serve as examples. People in these countries lead such miserable lives that their suffering makes us think it might be better if they were never born. Thus, on a planet rife with pollution and problems, future generations might assert that they would have been better off not being born. However, they have a right to be born, so we cannot choose the alternative of not bringing them into existence; that is, they will exist in the future.<sup>10</sup>

American writer and philosopher Mary Anne Warren(1946-2010) offered a different response to this problem. In “Future Generations” (1982), Warren distinguished between ‘possible people’ and ‘future people’.<sup>11</sup> Possible people are those who could exist in the future but do not necessarily have to, while future people are those who will exist. We are discussing the responsibilities to future people, not merely possible people. Given that the number of possible people is infinite, the idea of responsibilities to possible people is absurd and nonsensical. When we compare two types of human life - one of suffering and one of happiness - it is clear that a life of happiness is preferable. Thus, we can meaningfully compare the happiness and suffering of future people as well. The relative amount of suffering or happiness of future people does not vanish, regardless of which alternative decisions are made. Here we are discussing the obligation to acknowledge a certain minimum level of moral obligations or responsibility to future people who will undoubtedly exist, not merely possible people.<sup>12</sup>

Some people argue that future generations are non-existent entities with whom we have not made any commitments or social compacts. So, why should we bear any responsibilities towards them? An agent bears moral responsibility for harm or injury when they cause it of their own free will, are aware of the consequences of their actions, and could have prevented it if they wished to do so. American professor Manuel G. Velasquez identifies causality, knowledge, and freedom as the three elements of moral responsibility<sup>13</sup> in his book, *Business Ethics: Concepts and Cases*(2009). We cannot deny that the present generation is responsible for the impacts of their actions, as we are aware of the consequences of our deeds. We act of our own free will, and we can halt our actions if we choose to do so. Therefore, we are morally responsible for the effects of our actions on future generations.

Do we care about future generations? The concept of psychological egoism originated in Greece. From the Greek sophists to Thomas Hobbes (1588-1679) and contemporary economists, the consensus is that humans are inherently selfish and self-centered. Rational people act only when motivated by self-interest. Even charitable acts are performed because individuals want to present themselves as benevolent, generous, and kind. There is no contractual agreement to exchange favors or services between us and future generations. There is no reciprocal relationship that would motivate us to act in their interests. They cannot do anything for us. Future people do not have any rights over us, nor do we have any obligation, duty or responsibility to protect the rights of individuals who exist in a peculiarly abstract and metaphorical sense, as an idea, a potentiality.<sup>14</sup>

History reveals a chronological unfairness where previous generations selflessly sacrifice so that subsequent generations can benefit. For example, our current comforts are the result of our ancestors' sacrifices. Joel believes that-

"Without this idea and potentiality, our lives would be confined, empty, bleak, pointless, and morally impoverished. In acting for posterity's good, we act for our own as well. Paradoxically, we owe it to ourselves to be duty-bound to posterity, in a manner that genuinely focuses on future needs rather than our own. By fulfilling our just duties to posterity, we may now earn and enjoy, in our self-fulfillment, the favors of posterity".<sup>15</sup>

Following American moral philosopher John Rawls (1921-2002), Ernest Partridge (1935-2018) speculates on moral psychology and attempts to show that people's concern for future individuals is morally right, and such concern is a reflection of the rational and moral

development of individuals. Partridge presents his concept of 'Self Transcendence'<sup>16</sup> to demonstrate that we do care for future generations. He believes that a well-functioning moral psychology involves consideration for the wellbeing of oneself, one's community, society, current generation, and future generations. To be a healthy and well-functioning person is to have significant others in one's life, to wish to be significant to others, and to affect consequences for others. Partridge suggests that a person who lacks concern for future generations lacks a moral sense. There is reasonably strong empirical evidence suggesting that we are often motivated to act out of concern for the interests of future generations.<sup>17</sup> For example, we make social policies or plans, build museums and libraries, and save on a personal level.

Can we shape the lives of people who don't even exist in our time? If we care about future generations, it's our duty to concern ourselves with the type of life they might lead and the kind of people they will become. We are inheritors from past generations and determiners of the inheritance of future generations. For instance, in parenting, our responsibility is not only to fulfill the needs and wants of our children but also to shape and develop appropriate desires, so that children not only get what they want but also want what is good and appropriate. This process requires moral education and development. Thus, it is neither irrational nor illogical for us to care for our descendants, and most of us indeed do. Caring for future generations is not just a voluntary task; rather, it is our responsibility to consider their interests.

What Qualities Make Life Good? The famous American political philosopher John Rawls (1921-2002), in his seminal book *A Theory of Justice*(1971), advocates for a just distributive society. He proposed a hypothetical contract situation where people, who are free, equal, self-

interested but rational, and ignorant of their position, will impartially strive to formulate a set of principles for a harmonious and peaceful social order that will be acceptable to all. According to Rawls, they would be under a 'veil of ignorance', a situation where people wouldn't be aware of their place or time of birth, or their strengths and weaknesses, so they wouldn't know their advantages or disadvantages. This state would place them in an 'original position',<sup>19</sup> compelling them to decide on an impartial and general set of principles to solve social conflicts and injustices and help establish a just society.

Like Rawls, we should ask, if we were put in a hypothetical situation, ignorant of our birthplace or unaware of the generation to which we belong, would we still continue with the actions we are currently undertaking? Ronald M. Green, in his piece "Intergenerational Distributive Justice and Environmental Responsibility"(1977) proposes 'three commonsensical axioms' to clear up some conceptual difficulties. The first axiom asserts that we are bound by ties of justice to real future persons. The second suggests that the lives of future persons ought ideally to be better than our own, and certainly no worse. The third posits that sacrifices on behalf of the future must be distributed equitably in the present, with special regard for those currently least advantaged.<sup>20</sup> Green mentions in this axiom that we should strive to improve the life of future generations. While he acknowledges the difficulty of pinpointing what constitutes a good life, he proposes that identifying what deteriorates the situation is easier. Therefore, it's better to restrain our actions that have been identified as detrimental to the standard of living.



### 4.3 Rights of Future Generations

We acknowledge that we have an obligation to future generations but can future generations be said to have rights? If yes, why do they have rights?

According to the Oxford Dictionary, a right is a justifiable claim, on legal or moral grounds, to have or obtain something, or to act in a certain way.<sup>21</sup> A right is a form of entitlement that allows us to make a claim on other people to behave in a certain way, similar to a creditor who can demand repayment. American emeritus professor John R. Boatright in his book *Ethics and the Conduct of Business (2009)* defines rights as-

"To have rights is to be entitled to act on our own or to be treated by others in a certain way without asking permission of anyone or being dependent on other people's goodwill."<sup>22</sup>

Joel Feinberg, in his essay "The Rights of Animals and Unborn Generations", applied his 'interest principle'<sup>23</sup> regarding the rights of future generations. According to Joel Feinberg:

"...the sort of beings who can have rights are precisely those who have (or can have) interests. I have come to this tentative conclusion for two reasons: (1) because a right holder must be capable of being represented and it is impossible to represent a being that has no interests, and (2) because a right holder must be capable of being a beneficiary in his own person, and a being without interests is a being that is incapable of being harmed or benefited, having no good or 'sake' of its own. Thus, a being without interests has no 'behalf' to act in, and no 'sake' to act for."<sup>24</sup>

Feinberg believes that we have the power to leave the world for future generations better or worse than the world we inherited from our ancestors. Most people acknowledge that we have a duty not to exploit natural resources and create environmental crises to the level that will make the world a less pleasant place for the upcoming generations. We have to conserve resources and leave a sound environment for future generations, which is not only desired by them but also a necessity for living. This is not just a duty but also a moral requirement. We have to do so for their own sake because they have rights over us. Although our descendants are not present here to claim their rights, there are many proxies who speak on their behalf. When we care for our children, who are our immediate next generation and present with us, we care out of love. However, our concern for future generations is a matter of justice; we care for them because we respect their rights.<sup>25</sup>

Some thinkers pose the question: do the interests of future generations override the interests of present generations? Some people believe that the interests of present generations always override the interests of future generations because the latter are uncertain and must be discounted. 'Discounting the interests'<sup>26</sup> of future generations is rooted in Jeremy Bentham's view of classical utilitarianism. He argued that certain and immediate pleasures are more valuable than uncertain or remote pleasures. Discounting the interests of the future means prioritizing the interests of the present generation over those of future generations. It's common for economic analyses to be used when examining environmental issues. Contemporary economists often argue that the value of one dollar today is greater than that of one dollar held in the future because the current dollar can be invested and earn interest. This economic approach heavily influences public and environmental policy, encouraging us to exploit natural resources for the present generation to maximize value, while discounting

future value. In this way, they believe we're fulfilling our duties by extracting the most from available natural resources.

However, while discounting future generations' interests might be appropriate for immediate economic gains, it's not suitable for long-term economic decisions or the natural environment. Two objections can be raised against discounting future interests. Firstly, by discounting even a small interest, we eventually discount so much that we completely disregard the future generations. Even at a small rate, continued discounting leads to future generations not being accounted for at all. Secondly, it's a categorical mistake to assume that while the value of a dollar may decrease in the future, the value of a healthy, pollution-free environment will always remain constant, if not increase.<sup>27</sup>

American philosopher Mary Williams strongly criticizes the idea of discounting future interests. Williams bases her argument on a utilitarian approach and advocates that we have a minimum obligation to minimize the suffering and maximize the happiness of future generations as much as possible. Her argument aligns with the concept of sustainable development described by the Brundtland Commission. She demonstrates that, even based on utilitarian principles, discounting the interests of future generations does not promote maximum happiness. Rather, it's disheartening as resources are depleting at such a rate that they will soon become extinct if we do not change our pattern of policymaking. We're consuming the golden goose, not just the golden eggs. In economic terms, we're spending our capital, not the interest, or we're spending our savings rather than the interest on investments and will be left with no savings at all to generate interest payments. Williams advocates for an environmental policy of maximum sustainable yield to maximize overall well-being for the

indefinite future. She argues that we should strive to maximize the present return on our investments without jeopardizing the investments themselves.<sup>28</sup>

Another issue is that if we adopt the principle of 'maximal happiness' <sup>29</sup> , that is, the responsibility to maximize the happiness and minimize the suffering of future generations, does this instruct us to increase the total overall happiness or average happiness? This distinction might not be important when considering the happiness of today's people, but it's crucial for future generations because we don't know how many people there will be in the future. If we prioritize the total happiness perspective, we must increase the future population size, which is a major cause of the environmental crisis. Derek Parfit has termed this the 'repugnant conclusion' <sup>30</sup> . We cannot sacrifice the happiness of individual people in the future for the sake of total overall happiness, an abstract concept. It's not ethically permissible to increase the overall amount of global happiness at the expense of the suffering of countless individuals. An alternative to the total happiness perspective is the average happiness view, which leads us to another repugnant conclusion as it upholds the status quo. The argument centers around the 'freedom of reproduction.' People living in poor countries, who barely meet their basic needs, will give birth to generations that may not be able to increase happiness compared to those who have access to a relatively high standard of living. Therefore, proponents of the average happiness view must grapple with the distribution of both happiness and resources.

While utilitarians make serious attempts to answer these questions, a fundamental flaw of utilitarianism also applies here. The 'utilitarian utopia' <sup>31</sup> solves one problem only to raise another. Utilitarianism is criticized for encouraging exponential population growth, which will

create more serious problems for future generations. As Jardins believes, sustainable practices can prevent us from discounting the interests of future generations because-

"Sustainable practices enable us to maximize overall well-being into the indefinite future, clearly the optimal utilitarian result. By discounting future values, we make it too easy for the current generation to spend its capital as well as its interest and thereby fall short of long-term optimal happiness."<sup>32</sup>

People who argue against responsibility to future generations often lack a sense of responsibility. Their arguments are often used to divert attention from the exploitation of natural resources and environmental crises. Such arguments are typically employed to justify exploitative and destructive actions towards nature. We can present several arguments in favor of our responsibility to future generations; we just have to find the appropriate trigger points. Our task is to determine what people truly need, how we can use resources responsibly, and what constitutes an adequate standard of life. Thus, we can conclude that we indeed have responsibilities to future generations. But what kinds of responsibilities do we have? Or, what are the rights of future generations? Among others, our most important responsibilities include:

1. It's not hard to imagine that our overreliance on fossil fuels and nuclear power will pose a serious threat to future generations. Therefore, our first responsibility to future generations is a sincere and earnest effort to develop alternative energy sources. Failing to do so out of negligence would be tantamount to a crime.
2. If the current rate of consumption continues, it won't take long to deplete the reserves of fossil fuels and other non-renewable natural resources. Therefore, we must conserve

resources. The principle of eco-efficiency could be a good starting point for conservation.

3. We must control our population growth before it explodes. We have a duty to ensure the minimum requirements of a happy life. Poverty and overpopulation will only exacerbate problems.
4. Natural resources that are still unpolluted must be left unpolluted, or at the very least, not worse than what our previous generations have left for us.
5. Future generations should have a share in the public goods we have inherited from our ancestors.
6. Just as past generations have brought us into this world, it is our duty to usher future generations into the world, but in a manageable size.
7. If we fail to fulfill our obligations towards them, they deserve compensation from us.

There will be no one to explain the causes, context, or moral perspectives of our current actions to the next generations, except for the outcomes of our actions. Therefore, we need to act in a manner that serves as a representative of our concern and care for them, and creates an image of us as a responsible generation. We should remember that most of today's environmental issues are the results of the actions or choices made by our previous generations. Instead of cursing our ancestors, we should focus on how we will be perceived in the future. We must strive to avoid repeating the mistakes of past generations and work towards making our future generations proud, rather than cursed.

## **4.4 Motivations for Rational Use of Natural Resources**

There are numerous instances where we sacrifice our present needs to secure the future of upcoming generations. We can be motivated for rational use of natural resources from different aspects. We will be responsible in using natural resources because we care about future generations. In this section, I will discuss some sources of motivations for rational use of natural resources.

### **4.4.1 Passing on the Inheritance**

We are relatively more privileged than most of our ancestors. We have more knowledge about the long-term effects of our policies. Hence, our power to affect the future exceeds that of previous generations. With great power comes great responsibility. It's important to remember that we are in debt to past generations and have a significant ability to shape the future. When past generations conserved resources, they did so not just for us, but for future generations as well. History has shown that a society that loses its connection with posterity, and its positive image of future generations, loses its capacity to deal with present problems and subsequently falls apart. We exist in different times, so they won't be able to reciprocate.

### **4.4.2 A Gesture of Attitude**

We are a product of what our previous generations have left for us, and our future generations will be what we leave for them. Whether they will value or desire these things as much as we do is largely dependent on us, as we shape their wants, desires, and thinking, much like our interests were shaped by our ancestors. We remember our forebears with gratitude, and future generations will remember us in the same way if we leave a habitable world for them.

However, they will never forgive us if we leave them a world marked by environmental destruction, as predicted by ecologists if we do not halt resource exploitation.

#### **4.4.3 Motivation from Religion**

American historian and author Lynn Jr. White's in his famous article "The Historical Roots of Our Ecological Crisis"(1967) discussed that one of the significant factors contributing to resource exploitation is the Judeo-Christian concept. However, a deeper look into it reveals a powerful motivational force for curbing irresponsible resource exploitation. Firstly, God created us as part of the cosmic universe with a purpose extending beyond our personal lives. Our ancestors, we, and the unborn future generations are part of this continuous cycle. Secondly, the doctrine of divine creation and the regulation of the universe suggest an ongoing process of transferring the message of God's faithfulness and mankind's duty to serve God, creating a network of obligation or responsibility. Our actions have repercussions, so we must choose them wisely. If we perform good deeds, they will be blessed as promised by God, and if we perform misdeeds, we will incur curses and cause suffering. Thirdly, there exists a solidarity across generations. In the Christian concept, this solidarity among generations extends to both the living and the dead. The semantic ( Islamic, Judaic, christian) concept of love encompasses all people, across all statuses and generations. Consequently, care and concern for all people are seen as divine duties. Fourthly, Eastern religions, like Hinduism and Buddhism, exhibit a respectful attitude towards nature.

For many religions, the dignity of life itself holds supreme value. The principle of life, soul, or spirit represents the deepest mystery, the greatest expression, and the closest connection to God. Australian philosopher John Passmore(1914-2004) discussed in his notable work *Man's*



*Responsibility for Nature: Ecological Problems and Western Traditions*(1980) that a common approach in religious ethics is the ‘stewardship of nature’<sup>34</sup>. This notion of stewardship, proposed by various religions, is one of the most environmentally friendly approaches. According to this approach, humans are not the creators or owners of nature. With great power comes great responsibility: humans are entitled to use resources to fulfill their needs but are also responsible for taking care of nature on behalf of the creator. This approach prioritizes human good, but also requires responsible care for the natural environment and restraint from destructive behavior. The concept of stewardship aligns well with sustainable development.

Sustainable development, both as a descriptive and normative framework, is promoted as an appropriate lifestyle for present generations. It emphasizes social and economic development, as well as environmental preservation. It suggests a pattern of resource use that aims to meet human needs of both present and future generations while preserving the environment. It encompasses nature-related principles, personal principles, society-related principles, and system-related principles. Therefore, sustainable development can provide guidelines to help us fulfill our responsibilities to future generations. The moral obligation we hold to future generations is profound and undeniable. As we reap the benefits of the Earth's resources, we must be ever cognizant of the legacy we leave behind. Every decision we make, every action we take, casts a long shadow into the future, affecting lives yet to be lived and voices yet to be heard. This is not just a responsibility; it is a sacred trust.

Central to this trust is the principle that we must not misuse, abuse, or overuse our planet's resources. Mere utilization of resources isn't the concern—it's the manner in which we do so. Our current trajectory of consumption and waste, often propelled by heedlessness or greed, is

untenable. The wisdom lies in understanding the delicate balance of our ecosystems and recognizing that unchecked exploitation today leads to scarcity tomorrow. Resources, once depleted or degraded, can rarely be restored to their original state. Thus, our consumption patterns must be guided by prudence, ensuring that we utilize resources in a manner that meets our present needs without compromising the ability of future generations to meet theirs.

Consider the concept of intergenerational equity, which posits that we do not inherit the Earth from our ancestors, but rather borrow it from our descendants. If this is our guiding principle, then every instance of resource misuse, abuse, or overuse becomes not just an ecological concern but a profound moral failing. We are, in essence, robbing those who have no ability to consent, no voice in the decisions of today.

Yet, this moral imperative should not be seen merely as a burden. It is also an opportunity—an opportunity to act with purpose, vision, and compassion. To recognize that our time here is fleeting, but our impact is enduring. And to embrace the chance to be remembered not as the generation that took without thought, but as the one that gave back with heart.

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## Conclusion

We are rational and social beings with an ‘intraspecies’<sup>1</sup> and ‘interspecies’ obligations which ties us to our responsibility towards nature. Without cooperation with the non-human elements of nature, our existence would be jeopardized. Natural resources are a common property, belonging to everyone, including both humans and non-humans. Without these natural resources, survival would be impossible for anyone, anywhere, at any time. The development of business and industrial production is also deeply reliant on these resources.

In this thesis, I have discussed various aspects of resource overexploitation and the ensuing environmental crises. The natural resources that sustain life on our planet are being depleted at an alarming rate. Concurrently, the climate is changing, and our air, water, and soil are increasingly polluted. Habitats and species are under threat of extinction. Many of these environmental issues are intertwined with economic endeavors. All too often, we ‘purchase’ development at the expense of environmental health, a cost exacerbated by a consumerist attitude perpetuated by profit-oriented business enterprises.

Environmental challenges not only present scientific and political dilemmas but also pose significant philosophical questions. Environmental ethics emerges as philosophers grapple with concerns surrounding human existence and the protection and maintenance of the Earth's life-support systems. Philosophers and thinkers are striving to discern how resource exploitation can be curbed and how environmental crises can be mitigated. Their goals encompass ensuring access to an unpolluted environment, sustaining resources for at least the next seven generations, halting species extinction, and preserving habitats. The broader aim of environmentalists is to bring about meaningful changes in policy-making and in the lifestyles

of our consumer-driven society. They aspire to morally inspire individuals from all walks of life to adopt a value-based approach to nature, and they advocate for increased public participation in decision-making related to the environment. In this endeavor, the philosophy of sustainable development lights our way.

The concept of sustainable development can guide us to an economy that is both profitable and eco-friendly. Sustainability is defined as the ability to maintain a profitable practice indefinitely without causing environmental damage. A sustainable economy is one that can operate indefinitely without depleting natural capital. In other words, the rate of resource consumption is equal to, or less than, the rates at which resources are regenerated or recycled. In the current context, this is an essential requirement for staying competitive in the business world.<sup>2</sup>

However, the idea of sustainable development is not without its critics. Many thinkers argue that it's a vague concept, given its normative structure. Like many other normative concepts, a specific definition might be elusive. Detractors assert that the goals of sustainable development are unrealistic and unattainable. They claim that it champions an anthropocentric viewpoint, suggesting that humans have stewardship over nature, which inadvertently supports the exploitation of natural resources. Critics believe it represents merely a milder and simpler form of nonhuman exploitation, albeit with the best and greenest technology and policies. Furthermore, they argue that sustainable development 'greenwashes' the public, making consumers believe that by using 'green' products, they are positively contributing to the environment. This belief, they say, might inadvertently encourage even greater consumption. Such critiques bring into question the feasibility of an environmentally sustainable economy. However, I maintain that such an economy is achievable. In the 21st

century, business is seen as ‘a moral enterprise’<sup>3</sup> in a profoundly distinct manner. Despite being an intrinsically impersonal entity, a corporate enterprise can assume moral responsibility for protecting the natural environment. It can also acknowledge and address the challenges it might face in this pursuit.<sup>4</sup>

It is evident that people are concerned about future generations. The state of the world we pass down hinges on our current actions; we must decide whether to leave it better or worse than we inherited from our ancestors. Our choices, good or bad, will influence our descendants, given that the Earth has limited resources and opportunities. Despite our advanced technologies and knowledge, we cannot prevent today's actions from shaping the lives of future generations. Our rationality and morality dictate that if we act irresponsibly now, we also fail in our duties to those who come after us. Future generations will remember us with respect or disdain based on our current actions. We hold both positive and negative duties toward them. In a positive sense, we should actively strive to improve their lives; in a negative sense, we must avoid causing harm, ensuring, at the very least, that we don't exacerbate existing challenges. To uphold these responsibilities, the most promising strategy we have identified is the sustainable development approach. This approach promotes a form of development that addresses environmental crises and meets the needs of the present without compromising the quality of life or needs of future generations.

An environmentally sustainable economy encompasses social, political, technological development, and morality. Business corporations must integrate environmental values into their planning and decision-making processes. Inspired by the green economy, they should transition to clean energy sources and invest in researching alternative energy solutions and eco-friendly products and methods. Adherence to environmental laws and policies is crucial,



as is respecting every individual's right to a healthy environment. Implementing suitable technologies can minimize the release of toxic waste, hazardous materials, and other harmful discharges. Operations and production processes detrimental to the environment should be halted promptly. Achieving these objectives requires collaboration between business corporations and stakeholders from various sectors, all working toward a harmonious and habitable planet for both current and future generations.

### **Some Recommendations**

Next, I will outline steps that can facilitate the realization of sustainable development goals and the establishment of an environmentally sustainable economy.

#### **5.1 Recognize the Value of Natural Resources**

We must recognize the value and fragility of natural resources and services. A prerequisite for an environmentally-friendly or eco-friendly business policy is acknowledging natural capital. Although the value of nature is subjective and varies among individuals, it's an undeniable fact that without nature's resources, such as solar energy and the Earth's organisms, we would have no capital. Nature provides the resources for our life-support systems; the capital nature provides is our sole source of wealth and economic development. We need to rethink our approach to accounting for natural resources and recognize that intact habitats worldwide are often more valuable than the products or the productive uses they can be converted into.<sup>5</sup> American environmental analyst Lester R. Brown, in his book *Eco-Economy: Building an Economy for Earth*(2001), suggests quantifying ecosystems in economic terms. According to him, a natural system functions like an 'endowment'<sup>6</sup>. As he writes-

“To put ecosystems in economic terms, a natural system, such as a fishery, functions like an endowment. The interest income from an endowment will continue in perpetuity as long as the endowment is maintained. If the endowment is drawn down, income declines. If the endowment is eventually depleted, the interest income disappears. And so it is with natural systems.”<sup>7</sup>

## **5.2 Management of Renewable Resources**

We need to focus on the management of renewable resources. These resources have the ability to regenerate and can be used sustainably if the harvesting rate does not exceed the rate of regeneration. The harvesting rate can even be increased if the productivity of bio-resources is coordinated in a management system. Various management practices are suggested by environmental thinkers. To enhance recruitment, various methods such as planting, regeneration of parental crops, stock enhancement, site preparation, managing the sex ratio, and determining the harvest season can be applied. For enhancement of growth rates, management systems coordinate practices in agricultural systems, forestry, and aquaculture. The natural mortality rate caused by diseases, parasites, herbivores, or predators and the harvesting mortality rate can be controlled by technology, selection of species and sizes, and other regulatory tools. If these methods are properly used and managed, maximum sustainable yield can be obtained.<sup>8</sup>

## **5.3 Investment in Alternative Energy Resources**

Non-renewable resource use cannot be sustainable. So, it is necessary to create alternative resources for a sustainable economy. Solar power, wind power, geothermal energy, hydroelectric power, tidal power, wave power, biofuels, and hydrogen cells can be developed

into alternative energy sources. Fourthly, we have to use resources wisely, rationally and responsibly. We can follow the 'Wise Use Strategy' of American forester and politician Gifford Pinchot(1865-1946), that is- 'Waste not, want not'. According to Pinchot, we inherited the endowment of nature from our parents and hold it in trust for our children. We are responsible for the stewardship of trillions of dollars of natural resources. Businesses have to ensure efficient use of resources with their full productivity.<sup>8</sup>

#### **5.4 Following Green Strategies In Business**

Business has provided us with all the necessary tools for a comfortable life. While the use of natural resources to fulfill our needs and wants is inevitable, the problem lies not in using these resources to produce what humans need but in the exploitation of these resources for a consumerist lifestyle. The issue is not that we're unaware that every economic endeavor impacts nature, but that we often fail to acknowledge these impacts and seek solutions that reconcile resource use with economic growth.

There is a common conception that the primary purpose of a business is to generate profit and it should not be involved in social issues like environmental crises. However, research has shown that employees expect and want their business leaders to engage in social issues, treating them with as much importance as financial ones. They believe that business leaders and corporations have the power to influence societal issues like climate change, global warming, and pollution. Additionally, analysis of different cases suggests that values-driven businesses have strong profit potential. Lisa H. Newton discusses a widely accepted set of measures for green strategies in her book *Business Ethics*(2005). As initial steps, these strategies suggest carefully describing environmental dilemmas, gathering the facts and data

to solve them, and identifying the parties whose interests should be consulted in any decision. They recommend ensuring compliance with environmental law and regulations, saving energy, and recycling. Companies with a vision will focus on these seven-step strategies <sup>10</sup> to foster a green market.

The first step is to focus on alternative energy. Second, we need to learn from nature, not just extract from it. For instance, if nature can produce biodegradable fibers, food, and shelters, we should be able to do the same. We need to bear in mind how nature would solve a problem when we're addressing similar issues. The third proposal is to create a market for 'pollution credits'. In this hypothetical market, a company investing in environmentally friendly technology, such as pollution control technology, can recoup its investment by selling permissions to pollute a certain amount to its competitors who have not invested in such technology.<sup>10</sup> The fourth proposal is to substitute resource productivity for human productivity, suggesting we employ humans more and reduce the use of natural resources. Fifth, ecotourism can become a lucrative business sector teaching the value of nature and bringing profits for investors, as humans appreciate natural serenity, beauty, and integrity. Ecotourism provides opportunities for developing countries to create alternatives to monoculture and profitable employment. The sixth suggestion is to reconsider our approach to agriculture and focus on community farming. The last proposal targets the laws that allow land destruction, calling for their amendment. By following these measures, we can create a more sustainable, eco-friendly business environment.<sup>12</sup>

## 5.5 Application of Appropriate Technology

Technology holds the potential to transform human life for better or worse. Initially, it was anticipated that technological advancements would enhance the quality of life, promote equitable distribution of the planet's limited resources, and foster human potential. However, the reality starkly contrasts these expectations. Modern technological prowess has accelerated resource exploitation and exacerbated environmental crises. If we genuinely aspire to an environmentally sustainable economy and wish to honor our obligations to future generations, we must judiciously implement appropriate technology.<sup>13</sup> The concept of appropriate technology, pioneered by American energy policy analyst Amory Lovins(1947-present), German-British statistician and economist E. F. Schumacher(1911-1977), and American philosopher Buckminster Fuller(1895-1983), represents an ideological movement. It emphasizes small-scale, energy-efficient, environmentally sustainable, people-centric, and locally-controlled technology. In essence, appropriate technology evaluates the environmental impact of technological developments while also considering their ethical, cultural, social, and economic implications.<sup>14</sup>

Appropriate technology can manifest as an idea, object, or practice. It is self-sustaining and aligns with the social, cultural, economic, and political institutions of the region where it's employed. This form of technology leverages locally available materials, energy resources, and tools, and involves local communities in its operation and maintenance. American environmentalist and economist Paul Hawken (1946-present), along with American energy policy analyst Amory Lovins (1947-present) and American environmentalist Hunter Lovins (1950-present), highlighted in *Natural Capitalism: Creating the Next Industrial Revolution* (1999) that current technology can address basic human needs without detrimental

environmental consequences. Lisa H. Newton observed that applying appropriate technologies can lower the cost of development. She writes-

“...the costs of managing wastes can be turned into profit by careful monitoring of the manufacturing processes.”<sup>15</sup>

Lisa’s work provides several examples of companies that successfully integrated appropriate technologies, achieving both profitability and environmental conservation. In short, technology can be eco-friendly. We may not have the best technology available, but we have technologies that can improve the natural environment as it stands today.<sup>16</sup>

Some notable examples of appropriate technologies include Carbon Capture and Storage (CCS), solar glass, smart grids, environmental sensors, and energy-efficient LED lights. CCS is a technology designed to isolate carbon dioxide from other gasses produced during industrial processes. Utilizing solar glass in windows and other surfaces allows for the conversion of sunlight into electricity. Predictions suggest that Smart Grid technology could reduce carbon emissions by 58% in 2030, compared to 2020 levels. Environmental sensors empower individuals to monitor urban pollution levels, while energy-efficient LED lighting has the potential to cut energy consumption by 40%. Although the ways of using appropriate technologies are absolutely science based, we are morally obligated to use science based solutions for making this world habitable for all , i.e., of our current generation and generations coming after us.

## 5.6 Implementation of Environmental Laws and Justice

Every human, regardless of time or place, has the right to a healthy environment. In *Silent Spring* (1962), Rachel Carson argues that the right to a healthy environment should be recognized as being as vital as other basic human rights. She pointedly notes:

"If the Bill of Rights contains no guarantees that a citizen shall be secure against lethal poisons distributed either by private individuals or by public officials, it is surely only because our forefathers, despite their considerable wisdom and foresight, could conceive of no such problem."<sup>17</sup>

Rachel Carson played an instrumental role in championing the idea that environmental rights are human rights. Today, the right to a healthy environment is recognized both internationally and by the majority of nations. A constitution that enshrines laws to protect the environment and resources can be a powerful tool in addressing environmental issues. When a constitution encompasses environmental rights, it paves the way for robust environmental policies and laws. These laws can then curtail the destructive actions of those who, whether due to their cultural, religious, or moral perspectives, don't prioritize the environment or future generations. Moreover, business enterprises are bound to adhere to the regulations and mandates set by governments. Therefore, the establishment and rigorous enforcement of stringent environmental laws and policies are paramount to ensure accountability.

Furthermore, both international and national environmental laws and policies are instrumental in championing environmental justice and reducing the environmental injustices that persist today. This form of justice promotes the equitable distribution of resources amongst both present and future generations. For these laws and policies to be effectively implemented, a

rigorous governing body is essential, and there must be a staunch commitment to eradicating corruption.

### **5.7 Active Participation of People from All Sectors**

Achieving sustainable development goals requires the active participation of individuals from all sectors. It's imperative to take initiatives that engage people in decision-making processes related to environmental conservation and resource utilization. Efforts such as awareness programs, as well as formal and informal educational platforms emphasizing the significance of sustainable development, are vital. These initiatives foster mutual understanding and promote cooperative attitudes among communities. Furthermore, sustainable consumption and efficient use of resources and energy should be heralded as the moral duties of conscientious citizens.

### **5.8 Motivating People for Responsible use of Natural Resources**

At its core, sustainable development is a normative concept, making ethics a foundational element in its realization. If individuals are not morally inspired to prioritize sustainability for both current and future generations, the objectives of sustainable development will remain elusive. Charles J.Kibert et al. rightly said in the book *Working Toward Sustainability: Ethical Decision Making in a Technological World*(2012) that-

"...ethics is central to this process. An ethics of sustainability is needed to guide technology developers, policymakers, and end-users in making informed decisions related to technology." <sup>18</sup>



It's crucial to raise awareness about the gravity of the environmental crisis, its ramifications, and strategies to curb resource exploitation. This environmental consciousness can be achieved through comprehensive education and community learning programs.

### **5.9 Applying a Sustainable Approach in Practical Life**

As citizens and moral agents, we have an obligation to act responsibly that I have already mentioned before, ensuring our actions don't negatively impact others. To safeguard our planet and secure the rights of future generations, we must integrate a sustainable approach into our daily lives. Encouraging others to adopt sustainable practices and understanding that even small steps can have a profound impact is vital. A sustainable approach not only benefits the planet but also enhances individual and communal well-being. Some steps include:

- Reducing consumption and waste.
- Making informed decisions when purchasing products.
- Implementing appropriate technology at home.
- Opting for eco-friendly alternatives instead of plastics.
- Investing more in environmentally-friendly clothing.
- Steering clear of products harmful to wildlife and the environment.
- Supporting innovations that promote resource conservation.
- Investing in ethical companies that prioritize environmental conservation.
- Creating eco-friendly homes.

- Supporting local farmers by purchasing their products.
- Using compost fertilizers instead of pesticides and chemicals.

Environmentalists like Aldo Leopold, Schwetzer, and many others, either directly or indirectly, endorse the sustainable development approach. They recognize the unavoidable need to utilize natural resources for survival. While certain decisions are necessary, we must approach them with care, awareness, and responsibility. An ethical perspective heightens our awareness of the consequences our decisions carry. It discourages thoughtless actions and urges reasoned decision-making. We must utilize resources for genuine needs, not indulgent wants, and control our tendencies towards overconsumption. Our choices shouldn't be solely driven by selfish desires or domineering attitudes. Before taking action, we must consider the impact on both the environment and future generations. As philosopher Mark Sagoff articulates in his book *The Economy of the Earth* (2007), a value-based approach, focusing on spiritual, aesthetic, and ethical values, is more effective than arguments centered around scarcity or overconsumption. Such an approach views nature beyond mere resources, understanding the deeper significance of material possessions and the true essence of self-worth. Consumerism, for instance, often misinterprets material wealth as a measure of attributes like self-esteem, beauty, compassion, and humanity.<sup>18</sup>

If we don't prioritize sustainable development, we will soon reach a point where our environment can no longer function properly. We must ensure resource extraction doesn't outpace resource regeneration and exceeds the environment's absorption capacity. My hope lies in the experts across various fields—scientists, technologists, humanists, social scientists, policymakers, and more—who have heeded the calls of environmental movements. Their

combined efforts have spurred research in areas like ecology, biology, biotechnology, geology, history, economics, journalism, sociology, and politics. Environmental philosophers, in particular, play a crucial role, representing those who cannot advocate for themselves, like the non-human elements of nature and future generations.

The moral obligation we hold to future generations is profound and undeniable. As we reap the benefits of the Earth's resources, we must be ever cognizant of the legacy we leave behind. Every decision we make, every action we take, casts a long shadow into the future, affecting lives yet to be lived and voices yet to be heard. This is not just a responsibility; it is a sacred trust. Central to this trust is the principle that we must not misuse, abuse, or overuse our planet's resources. Mere utilization of resources isn't the concern—it's the manner in which we do so. Our current trajectory of consumption and waste, often propelled by heedlessness or greed, is untenable. The wisdom lies in understanding the delicate balance of our ecosystems and recognizing that unchecked exploitation today leads to scarcity tomorrow. Resources, once depleted or degraded, can rarely be restored to their original state. Thus, our consumption patterns must be guided by prudence, ensuring that we utilize resources in a manner that meets our present needs without compromising the ability of future generations to meet theirs.

In conclusion, our moral obligation to future generations, combined with the commitment to use resources rationally, wisely and responsibly, calls upon us to think beyond the immediate, beyond the confines of our own lifetimes, and to act with foresight and empathy. For in safeguarding the well-being of those yet to come, we affirm the highest values of humanity: love, respect, and a commitment to the common good.

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