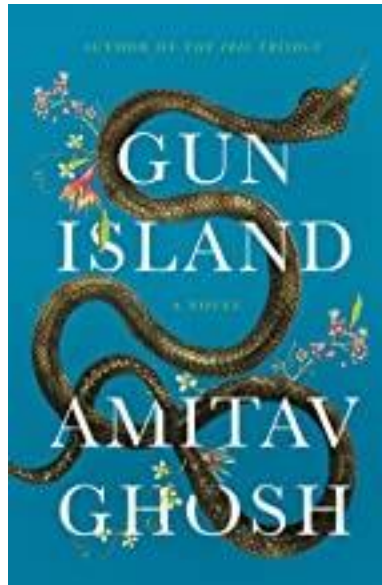


**Ecocide:**  
**A Study of Climate Change in Amitav Ghosh's *Gun Island***

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**Abstract**

Since the post-industrial time, science and technology has made great strides ushering in an era of capitalism, consumerism and globalization. A trend of progress has started where rapid urbanization and industrialization became the parameters of development. The consumerist culture and materialistic approach brought about revolutionary changes in the life of human beings. But on the other side, the path of industrial, technological, and scientific 'advancement' is at the expense of destruction of nature and it has reached a stage where the future of the planet looks bleak. The Planet's support systems like air, water, and land are also collapsing under the pressure of 'civilization'. Today, the destruction of ecosystems poses a threat not only to living species but also to future generations at apocalyptic level. Amitav Ghosh's *Gun Island* (2019) shows his sensitivity towards the increasing crisis of environmental degradation. He has made a blend of culture, myth, history and fiction to portray the ecological overtones in the novel. The novel gives

us the glimpse of how the ecological crisis has resulted in the problems like global warming and climate change which ultimately has given rise to the problem of ‘displacement’ of both humans and animals all over the world. Ghosh has artistically portrayed the emotional turmoil and the pain at the sight of nature’s plight in this novel. The present paper is an attempt to study *Gun Island* from the perspective of Ecocide which denotes the extent of damage done to the natural environment and how it has affected the life of both the human as well as the nonhuman world. Ghosh believes that ultimately it is humans who owe the responsibility to provide the requisite care and protection to the planet earth for the survival of all types of life forms.

**Keywords:** Amitav Ghosh, *Gun Island*, Ecocide, Urbanisation, Capitalism, Consumerism, Globalization, Climate Change, Global Warming.

### **Introduction**

Earth is a unique planet as it has ideal conditions for life to evolve and flourish. Eons of time tells us how that developing, evolving, and diversifying life reached a state of adjustment and balance with its surroundings. The history of life on earth has been the history of interaction between living things and their surroundings.

For most of human history, ecological balance played a decisive role, enabling the human race to rise and prosper. For thousands of years and into early modern times, population and economic activity grew very slowly. From around the mid-19th century with the introduction of a global culture of primarily techno-industrial type, the world has witnessed a marked change. The global effects of what we have done over the last century or so are monumentally larger than anything we might have even dreamed of before. On the one hand, human beings have reached the heights of technological and scientific development which has brought a lot of comfort in their life. But, on the other hand, for this advancement, the human race has been following an indiscriminate and unguided process of industrialization and urbanization, which is at the cost of, exploitation and destruction of nature. As a result of which the world has already been pushed in an escalating context of environmental degradation and ecological imbalance. According to Cheryll Glotfelty, “oil spills, lead and asbestos poisoning, toxic waste contamination, extinction of species at an unprecedented rate, battles over public land use, Protests over nuclear waste dumps, a growing hole in the ozone layer, predictions of global warming, acid rain, loss of topsoil, destruction of the tropical rainforest [.....] and a world population that topped five billion” (Introduction, *The Ecocriticism Reader* xvi) are some of the alarming signs of an imminent havoc jeopardising the very life of our planet. Glen A. Love also identifies various modes of ecological disaster that take place in the physical environment.

It has marked the beginning of “the age of ecocide” (Jonathen Bate 102). Ecocide is the most predominant concern of the ecocritics now a days. The term *Ecocide* derives from the Greek

*Oikos* ('house' or 'home') and *Caedere* ('Strike down', 'demolish' or 'kill'). In tandem, they translate to killing our home, i.e., earth. So, ecocide is the willful destruction of the earthly environment which is our home. The destruction of the ecosystems because of the economic growth as well as due to rapid modernization, industrialization, urbanization poses a threat not only to living species but also to future generations. Lawrence Buell writes that ecocide is "more serious threat than nuclear destruction" (Introduction, *The Environmental Imagination* 7). Environmental activists and International lawyers have continued to call for the establishment of either a specific crime of "ecocide" and/or the incorporation of ecocide into existing criminal laws and international instruments. Polly Higgins, a Legal Scholar and International Environmental Activist, proposed the legal definition of Ecocide as "the extensive damage to, destruction of or loss of ecosystem(s) of a given territory, whether by human agency or by other causes, to such an extent that peaceful enjoyment by the inhabitants of that territory has been severely diminished" (Higgins 257).

Amitav Ghosh is hailed as the most powerful writer of Indian English Fiction. He is the recipient of 54<sup>th</sup> Jnanpith Award (2018), Padmashree (2007), The Sahitya Academy Award (1989) and was also shortlisted for Man Booker Prize (2008). He has published a number of novels such as *The Circle of Reason* (1986), *The Shadow Line* (1988), *An Antique Land* (1992), *The Calcutta Chromosome* (1995), *The Glass Palace* (2000), *The Hungry Tide* (2004), *Sea of Poppies* (2008), *River of Smoke* (2011), *Flood of Fire* (2015) and *Gun Island* (2019). Ghosh's works have been translated into more than thirty languages. His tenth novel *Gun Island* stands as a testimony to the fact that the 'anthropogenic activities' are not only plundering the earth of its natural resources but also giving rise to a number of global crises. Ghosh makes use of this look of 'defaced nature' and its ramifications as a tool to express the innermost feelings of the characters in the novel.

Amitav Ghosh's *Gun Island* is a novel about global ecological hazards, the narrative of which revolves around the story of Deen who is on a visit to Calcutta from America. He is a dealer in rare books and Asian antiquities. He happens to meet Piya Roy and Nilima in Calcutta. Piya is a Bengali American who is doing research on Irrawaddy Dolphins (*Orcaella brevirostris*) found in the oceans of Sunderbans. She teaches somewhere in Oregon. Nilima is the founder of the Badabon trust, one of India's most reputed charitable organizations. Since Deen has done his research on Bengali folklore, Nilima persuades him for the documentation of a historical monument, that is a shrine devoted to Manasa Devi in a remote island of Sunderbans. It is after Deen's visit to the shrine in the Sunderbans, and later on to Los Angeles and Venice in the novel, that has ultimately led to "a kind of awakening"(217) in his life ,to those things he had never imagined and sensed before. He comes to know about the stark reality of this world which is constantly on the brink of increasing displacement and unstoppable transition. During these journeys Deen also meets other characters of the novel like Cinta, Rafi, Tipu and Horen.

In the novel Ghosh is critical about the irresponsible, irrational and self-centered attitude of the human race that has resulted in the problems of Global warming and Climate change. As mentioned in *Local Natures, Global Responsibilities*, “nature - in inverted commas or not - seems to have returned with a vengeance. Disasters such as the devastating tsunami [.....]. The current environmental crisis, global warming and the greenhouse effect have profoundly affected our outlook on nature, making us painfully aware of nature’s global forces, and simultaneously challenging us to face the responsibilities arising in an increasingly globalized world” (Introduction xii).

Ghosh highlights how global warming is affecting the climatic patterns that are rapidly reshaping ecological and social futures in the Sunderban Islands. Ecologically, the sea level rise in Sunderbans has led to rapid change in land dynamics as “the islands of the Sundarbans are constantly being swallowed up by the sea; they are disappearing before our eyes” (18). Even the embankments of the shores are not easy as the tides are unpredictable and would always rise higher and pull them down again. Socially, the anthropogenically altered environment is now posing a threat for the survival of human life in Sunderbans. The land of Sunderbans is not viable for cultivation as they are constantly intruded by sea water and are “turning salty” (60). As a result of which there is scarcity of drinking water as “an arsenic - laced brew gushed out of the soil” (49) while digging wells. The people living in Sunderbans are mainly dependent for their livelihood on collection of timber, fuel wood, fishing, farming, and collection of honey. But they come across the problems of survival in their daily lives as making a life in Sunderbans is hard due to a number of reasons like the fish count is low, restrictions imposed by law, etc. On top of that, every other year, the Sunderbans get hit by a storm that blows everything to pieces. The character of Horen speaks about the devastation caused by cyclones like Bhola in 1970 and Aila in 2009. Horen, though a fisherman earlier, had to change his profession due to the losses incurred by him as a consequence of the Aila cyclone. Though the loss caused to human life was far less during the Aila cyclone due to the timely evacuation and so on. But it had long term consequences in the form of, “Hundreds of miles of embankment had been swept away and the sea had invaded places where it had never entered before; vast tracts of once fertile land had been swamped by salt water, rendering them uncultivable for a generation, if not forever” (48).

According to a report on Climate Change published by Intergovernmental Panel on Climate Change (IPCC) as early as in the year 1990 which states that:

The greatest impact of climate change might be on human migration - with millions of people displaced by shoreline erosion, coastal flooding and agricultural disruption. Since then, successive reports have argued that environmental degradation, and in particular climate change, is poised to become a major driver of population displacement- a crisis in the making (11).

In the novel, the author meticulously writes about how climate change has not only led to the saga of human turmoil and disaster, but also acts as a catalyst in the problem of human migration to big cities, in quest of livelihood, where they add on to the number of already poor people and many elderly persons switched over to begging on the streets. Due to its poverty, the people of Sunderbans fall easy prey in the hands of human trafficking mafia which is, “the people moving industry, [...] It's already one of the world's biggest and still growing fast. Turnover last year was in the billions” (60). The people who get entrapped by the traffickers have to go through a number of atrocities reminding one of “the worst horrors of the slave trade” (174). They end up in terrible situations like women are sent to distant brothels, able bodied men are sent to worksites in faraway cities or even abroad. Many of those who left were never heard from again. Those people who can't pay the ransom, experience the worst, then what they are, otherwise trying to escape, as they are operated, “where an organ is removed” (174). In the novel Tipu and Rafi had left Sunderbans for Europe together. They paid money to the dalals in Bangladesh “for the cheapest kind of journey” (236) and travelled overland through India, Pakistan and Iran to the Turkish border where they had been separated. It is through firsthand experiences of Rafi that the novelist tries to explain the dark side of this trade.

Ghosh dwells on the role of technology especially in the form of the Internet and social media which has completely disrupted and transformed human life. Though a large segment of the population from the Sundarbans faces poverty, illiteracy and lack of livelihood earning opportunities, the young generation has got a special affinity for mobile phones. Ghosh mentions that with the mobiles, internet and social media is widely diffusing into the life of young people. The Internet helps these people not only to make connections with others, but also, to gather information about the prospects of a better life in other countries. They feel fascinated by it and from there the real process of migration starts. Ghosh writes, “The internet is the migrants' magic carpet; it's their conveyor belt. It doesn't matter whether they're travelling by plane or bus or boat: it's the internet that moves the wetware” (61). Tipu, in the novel, represents the mindset of the present young generation who learn the use of technology very quickly and are also ready to take any challenge to fulfill their dreams of a better life.

A pertinent ecocidal concern in the form of destruction and devastation of natural resources caused by the enormous ambitious projects like establishment of a refinery in an ocean has been raised in the novel. As William Rueckert writes, “all the oceans of our home are slowly being contaminated by all the pollutants disposed of in modern communities” (112). Ghosh has also mentioned how Pollution has become as much a part of the present age as is technological development. The author, through the character of Piya, the cetologist, raises his concern about the mindless depletion of various species caused due to ‘dumping of toxic effluents’ (177) into the oceans. For instance, Piya narrates how the population of fishes and crab is declining rapidly as

“more shoals of dead fish drifting up. [...] a big crab die-off-- a huge swarm of them lying dead on a mud bank. That’s seriously bad news because crabs are a keystone species in the Sunderbans” (108). Piya believed that with the rise of sea level water the Dolphins are erratically changing their tracks and many a times they venture into heavily fished areas where “ some had been ensnared by fisherman’s nets and some had been hit by motorboats and steamers(92). She also narrates another reason responsible for the beaching of Dolphins and Whales. According to which the marine animals use echo location for navigation and when something, like sounds produced by submarines and Sonar equipment disrupt with that, these mammals become disoriented and run themselves aground. Piya mentions that humans overlook and neglect the threat they are posing to the oceans which are suffocating due to ‘dead zones, a place where no real life can exist.

“Have you heard of oceanic dead zones? No? Well, they are these vast stretches of water that have a very low oxygen content - to go for fish to survive. Those zones have been growing at a phenomenal pace mostly because of residues from chemical fertilizers. When they are washed into the sea, they set off a chain reaction that leads to all the oxygen being sucked out of the water. Only a few highly specialised organisms can survive in those conditions- everything else dies, which is why those patches of water are known as “dead zones”. and those zones have now spread over tens of thousands of square miles of ocean -some of them as rock as middle sized countries” (95).

Human caused climate change has also led to altered animal behavioural responses. As the planet warms various kinds of species are also shifting their habitats. Professor Cinta, a regarded Historian and a Scholar of great repute from Italy, who is a very close friend of Deen, raises her concern about the problem as, “temperatures are rising around the world because of global warming. This means that the habitats of various kinds of animals are also changing” (214). This process of migration many times has a direct and profound impact on humans. The novel is replete with a number of examples about the animals moving from one place to another. For example, yellow bellied snake is changing its distribution, “these snakes generally lived in warmer waters, to the south but sightings in southern California had become increasingly common: their distribution was changing with the warming of oceans and they were migrating northwards” (134).The brown recluse spider is extending its range into places where it was not found before like the part of Italy.

Ghosh discusses another impact of climate change in the form of substantial wildfire incidents in many global regions. The novel has a full chapter titled as ‘Wildfires’ where dreadful wildfires had been shown raging around the forests of Los Angeles and put into peril life of

innumerable species of birds, animals along with numerous types of vegetation and which has resulted in the incineration of, “thousands of acres of land”(115). Due to global warming, the mountains are also warming. Piya’s friend, an entomologist, highlights how the Bark Beetles which eat up trees from inside and convert them into dead wood are also extending their range. In the time of dry spells or droughts there are maximum chances for the breakout of the Wildfire, as the dead wood is like a kindling, ready to engulf everything like human as well as animal life, loss to properties, flora and fauna, etc.

With the development of civilization, human beings have tried to intervene and control nature through their technological progress in order to fulfill their ever expanding demands. The novel shows how the same process of ecological degeneration is at work across the world in all complicated ways. The narrative of the novel moves from Calcutta, Sunderbans, Los Angeles and Venice. Like in Sunderbans, the Lagoons of Venice are also facing the problem due to warming of the Venetian Lagoon water. In Sunderbans, it is the crabs which are burrowing the embankments making them hollow from inside but in Venice, it is the shipworms, a creature which eat up the wood from the inside in huge quantities that are invading the city and “has become a big problem because Venice is built on wooden pilings. They are literally eating the foundations of the city” (230). Ghosh has mentioned that due to anthropogenic influence the natural propensity of, “the floods had become so frequent” (164) in Italy. The expansion of magnitude and increasing rate of flooding has changed their nature and character in terms of devastation. Abrupt changes in climate is a common phenomenon in various parts of the planet. The novel is full of descriptions about untimely and frequent occurrence of weather events in the form of storms, cyclones, hailstorms, and tornadoes which are thought to be “an effect of the changing weather patterns” (263) all over the world.

The mindless destruction of the natural order for utilitarian purposes can also be seen in the form of emission of gases like, “more and more carbon dioxide in the atmosphere, and other greenhouse gases too” (214). Ghosh pertinently mentions that the excessive consumption of things directly or indirectly is responsible for the increase in the greenhouse effect. He questions, “Do they not come from cars and planes and factories that make [...] ‘whistling kettles and electric toasters and espresso machines? Is all this natural too - that we should need these things that nobody needed a hundred years ago?’” (214). He also tries to give the answer that this departure from moral goodness to degradation can be graphically traced in human history where greed, improvidence and a penchant for the short term over the long has made human beings “demon” (111). The important point raised by the novelist is what sort of mindset or belief system permits the people to passively accept this eco catastrophic doom as:

Everybody knows what must be done if the world is to continue to be a livable place, if our homes are not to be invaded by the sea or by creatures like that spider. Everybody knows... and yet we are powerless, even the most powerful among us. We go about our daily business through habit, as though we were in the group of forces that have overwhelmed our will; we see shocking and monstrous things happening all around us and we avert our eyes; we surrender ourselves willingly to whatever it is that has us in its power (216-217).

The ecological stand of the novel also becomes profound with the description of climatic changes during the 17th century known as 'Little Ice Age' when "temperatures across the globe had dropped sharply (122). The history of life has been strongly influenced by changes in climate some of which radically altered the course of evolution. The little Ice Age may have been more significant in terms of widespread reports of famines, droughts, volcanoes, earthquakes, disease and increased mortality. The settled order, which had lasted for centuries was overturned. The effects of Little Ice Age were global in scale. Due to climate change, the disruption caused at the social, economic and intellectual level led to the emerging era of markets, exploration, and intellectual freedom which constituted the beginning of the Enlightenment. So much was happening so fast and the power of human beings was also increasing in the form of expanding technologies. This was also the period which transformed the west and gave birth to the modern world where it was considered essential to harness the resources of nature for the benefit as well as for the fulfillment of human needs. Humans were able to imprint on the face of the planet huge infrastructure alteration in a very short span of time.

Scientists are now saying we have entered a new age, the 'Anthropocene age' (C. 1750 to present), the age in which our species, the human, is becoming the most significant force on the planet capable of shaping it in more and more profound ways and it all started in seventeenth century. Ghosh highlights that the ecological overtones of the Little Ice Age serve as a clarion call for humans to discover how to act in relation to the natural world as, "All the climatic catastrophe around us should be enough to remind us that the climatic perturbations of the Little Ice Age were trivial compared to what is in store for us now"(124). By giving the reference of 'Plague of Italy in 1630' Ghosh intends to capture the attention of the readers about the outbreak of various deadly diseases in history and the repercussions of such diseases in the form of death of people in large numbers. In the present time, scientists are suggesting that climate change is expected to have an enormous effect on human health due to eruption and distribution of many infectious diseases. The recent outbreak of a global Coronavirus that has ravished much of the world is a serious wake up call for reorienting and re-charting our relationship with nature.

The concept of 'documentation of Legend of Manasa Devi' is important as it highlights a quintessential feature of Indian culture which always seems to harmonise and find a blend with



nature. In religious practices of Sunderbans, Manasa Devi is prayed and appealed for protection against snakes and all other poisonous creatures. Sometimes shrines are built to preserve the memory of these deities. A number of well-known characters are also associated with these folk tales. The 17th century famous Legend of Mansa Devi is also associated with the adventures of its protagonist, Bonduki Sadagar - the Gun Merchant, a wealthy trader who refused to become a devotee of the goddess. It aroused the anger of the goddess, so in order to escape the punishments, the merchant was forced to roam overseas from one place to another. At last, he gave in and swore to build a temple for the Goddess.

After a visit to the shrine of Mansa Devi, Deen becomes inquisitive to know more about the meaning of the mysterious symbols, as well, as the secrets about the legend. At last, it is only after going through a number of real life experiences, not only in Sunderbans, but also ,in America and Italy ,that Deen understood the deep meaning of the legend, where it “open up a world” (17) showing the real uncanny ecological picture of the world. The legend like a voice from the past reminds the world about, “the limits of human reason and ability become apparent not in the long, slow duration of everyday time, but in the swift and terrible onslaught of fleeting instants of catastrophe” (223). A re-reading of the legend in the present times brings out the eco concerns of the Goddess who understands that the driving nature of human beings is “quest for profit” (153). For this, they have created enough chaos and crisis by disrespecting and mistreating the natural resources. Humans have an insatiable appetite for which they recognize no restraint, no self-restriction or bondage. The legend teaches the concept of control, restrain and introspection to human beings. The snake goddess becomes the cultural artifact that binds together culture and conservation.

### Conclusion

In the light of the above study, it can be concluded that the novel is not just about the gargantuan rift caused in nature by the mean actions of the humans, but it is equally about the consequences of those actions. However, the author ends optimistically by suggesting that, “from the beginning salvation comes” (286). That is, mankind needs to learn from their history as well as culture, where nature has always remained as a focal point for everything. Ghosh is very well aware of the fact that the kinship with the natural surroundings is of paramount importance for the survival of both human and non- human lives on the earth. Hence, the salvation of the human race lies in realising the moral consideration to preserve the biodiversity, integrity, and beauty of creation.

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