
Natural Sustainability: A comparative study of *The Ministry of Utmost Happiness, We, The Survivors, Gun Island and Weather*

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Abstract

Natural sustainability as the intercourse of survival of humanity and the environmental balance, gets a significant position in the Anthropocene epoch. The comparative study of the selected novels in the perspective of the effects of human-made catastrophes of climate change will help the educated entrepreneurs, policymakers, and individual stakeholders to revisit the effects of Anthropocene actions. The acknowledgment of the existing reality is the main task of the Earth's inhabitants. Climate anxiety is the cause of ecological migration, and the denial factor is fading the future situation. Technological advancements, management of Earth's resources, controlled domestic animal population, and careful reinstatement of the natural environment must be accepted as tools. The alternate sources, plantation, and acceptance of the problem can minimize the Earth's temperature, due to fuel combustion and emission of greenhouse gasses (e.g. CO₂, N₂O, SO₂, etc.). The late-capitalist. Clouts must not stake the future of generations for their minor benefits. The paper will highlight how the strong international institutions, nations' bonding, and participation of social communities especially of artists can harmonies natural sustainability.

Keywords: Natural sustainability; Anthropocene epoch; Earth environment; Climate catastrophe; Denial; international Harmony;

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Introduction

The research is the comparative study of the novels “*The Ministry of Utmost Happiness* (2017)” by Arundhati Roy, “*We, The Survivors* (2019)” by Tash Aw, “*Gun Island* (2019)” by Amitav Ghosh, and “*Weather* (2020)” by Jenny Offill in the perspective of ‘Anthropocene Epoch.’ These novels will assist to understand the phenomenon of natural sustainability that is the substantial rejoinder of humans’ acceptance and ownership of their relationship with the natural environment. It is attainable through a responsible and reality-based exploration of the activities in the intricate systems; depends on self-organization as its impact is irretrievable.

The term, Anthropocene Epoch was first suggested by the chemist Paul J. Crutzen and biologist Eugene Storer in 2000. The etymology of the word Anthropocene is located in the Greek language that comprises of two words ‘anthropo,’ which means “man,” and ‘cene’ as “new.” The ‘Anthropocene Epoch’ (APE) is the geologic era of the considerable impact of human actions on the climate of the planet Earth that is calling a reaction from the ecosystems, now, in its history.

The methodology for this research is qualitative, including a close reading of the selected novels. For critical analysis, primary (novels) and secondary (relevant articles, blogs, books, reviews, internet sources, etc.) literature is selected in the light of theoretical perspectives of ‘Anthropocene Epoch’. The debate will help to conclude the major objectives. The research will find the solution to minimize the Anthropocene catastrophes that are harmful to natural sustainability. The role of literary writers, all types of media, and stakeholders of nature can initiate the awareness campaigns about the Anthropocene epoch, specifically the individuals, and in the broader perspective, the world as a whole.

The decision-making, based on solid facts, can be more effective and appealing through awareness campaigns. The training and awareness of the common people to save the natural resources can place a ground for the political clouts to move in the right direction in the APE. Visconti shared Wilson’s suggestion (2012) that the artist and scientist’s community can help to establish the ideology of natural sustainability in the recent APE (383). Through their work, they can grasp the attention of the society in case of social and environmental ethics, as in this modern world all types of media are working as an influential opinion-maker, and shaping the behaviors.

The article is set to analyze the impact of human behaviors on the environmental ecosystem that leads to the destabilization of environmental balance. This also will help to understand the APE factors; involved in the process of decaying the natural resources. The human behavior of denial under the umbrella of political, social, and economical interests is harming the future of the upcoming generation; dependent on the environmental balance and natural sustainability.

Anthropocene Epoch:

An Italian geologist Antonio Stoppani was the first one who introduced the new era as ‘anthropozoic’ in 1870. The scientists rejected the idea, but it was clear that the bigger size of the human population has a bacterial rate, approximately, seven billion. Elizabeth Kolbert in *Age of Man: Enter the Anthropocene* (2019), stated that animal species, biomass is a hundred times less than humans.¹ A Nobel Prize winner chemist for the discovery of the effects of ozone-depleting composites (1995), Paul Crutzen from Holand, coined the term “Anthropocene” in 2000; in a climate change conference. He replaced the epoch ‘Holocene’ that started 11,500 years ago by saying that “we are in the Anthropocene” (Kolbert). The life of an epoch in geologic dialect can extend for millions of years. The replacement of one epoch with the other is observed on the base of the sedimentary rocks alteration period. One group of scientists believed that it started with the industrial revolution (the 1800s) that waved the position of carbon and methane gasses in planet Earth’s atmosphere. Another group relates it with the atomic test in 1945 on Japan, in which radioactive specks are spotted in soil universally.

Crutzen (2006) in his article, “The Anthropocene” quoted Vernadsky (1998), the Russian geologist and biologist, that in the process of developmental fruition, where the human power is increasing to be more influential on their environment (e.g. humans, non-humans, and nonliving things), must be in the right direction (13). Ehlers and Krafft in *Earth System Science in the*

¹https://www.nationalgeographic.org/article/age-man-enter-anthropocene/?utm_source=BiblioRCM_Row

Anthropocene (2006) stated that Crutzen listed different human achievements in the response of their activities on an individual and collective level, for the progress of their society and culture that affected the natural ecosystem (5). JS Lewis, in the article, "Rain of iron and ice" explained that from epochs, the despoliation of the resources of the Earth with the primeval or advanced knowledge, humans are a dominant biological force on the Earth (1996). Stephen M. Gardiner in the book *A perfect moral storm: The ethical tragedy of climate change* (2011) stresses upon the deep and vibrant interactions of the world powers, the association (work under their influence), and social players, to solace each other, must come to the agenda of 'environmental sciences that factors in human impacts and vice versa (3). Now, for the upcoming millenniums they must cultivate a new, globally accepted, and accustomed policy for the sustainability of the ecosystem and their generations in the APE. It requires rigorous study and then its judicious implication in the more developed and informative world (Lewis 1996). Stanley Cohen in his book *States of denial: Knowing about atrocities and suffering*, suggested that for this purpose the leading stakeholders must come out of the state of denial. The delaying actions, negating the existence of reality are like the...alcoholics who refuse to recognize their condition are 'in denial'.

The regimes must take responsibility for the catastrophes those the result of Anthropocene behaviors. Spectators as governments, individuals, organizations, religious communities, artists, etc., must not repudiate their duty to mediate with the environmental Anthropocene epoch (23-24). In this case, it is obvious that the environmental calamity is a social and ethical disappointment, and the spectators must contemplate themselves as moral mediators to overcome the destabilization of environmental balance (Gardiner 3). The new scientific-based approach is the requirement in the APE to overcome the exceptional environmental defies (Ehlers and Krafft 5).

Crutzen explicated Anthropocene is a geological epoch under human control, and their hastening actions as deforestation, burning of fossil fuel, and the transformation of agricultural land into an industrial one, and concentration of conservatory gases, at the end of the 18th century, modify the Earth sphere, land-dwellings, and maritime life. Humanity could not measure the rate of change in the process of satisfying the instantaneous buyer requirements, in the future. The prudential elections of the United States in 2020, were controversial due to President Trump's decision to be out of the Paris Climate Change Agreement (2015) due to a decline in the oil and fertilizer industry. In this late capitalist world, international leadership must think outward. The survival of mankind will be difficult due to the austere game of political action/reactions.

There are factors to support the idea of the Anthropocene epoch as the coal and other fossil fuels are adding millions of dangerous gasses and polluting the air, and the rate of emission of SO₂ is 160 Tg/year is the largest one, globally. It is causing maritime pollution with dimethyl-sulfide (Houghton et al. 1996).

According to the United Nations Department of Economic and Social Affairs, the rate of urbanization will be 68% in 2050.² This is related to the livestock population of one cow/ family (McNeill 305). The intensifications of urbanization are costing the other factors like economic behaviors, energy, and water consumption, 25 % to 35% confiscation of Fisheries from oceans, deforestation (reduce up to 25%), decrease in a coastal wetland, and mangroves of the world (50% decrease); that ultimately disturbing the biosphere of the Earth. Cultural eutrophication and excessive use of nitrogen as fertilizers are hurting the agriculture industry, human health, livestock, and water resources. N₂O is affecting the ozone layer.³ All types of ignition are producing "smog" (photochemical ozone effect) hitting the Asian regions. The world temperature rise to 0.85°C in

² <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

³ Cultural eutrophication occurs when human water pollution speeds up the aging process by introducing sewage, detergents, fertilizers, and other nutrient sources into the ecosystem. It has had dramatic consequences on freshwater resources, fisheries, and recreational bodies of water and is one of the leading causes of aquatic ecosystem degradation. <https://www.britannica.com/science/eutrophication>

³ <https://www.ncdc.noaa.gov/sotc/global/202010#:~:text=The%20October%202020%20global%20land,1.67%C2%B0F%20were%20warmer.>

October (2020) as compared to 1880;⁴ and much more climate changes are ahead in the anthropogenic epoch (Pauly and Christensen 256; Crutzen 14).

At the end of the 20th century, humanity is the largest Earth modeling mediator along with natural forces (e.g. Earthquakes) (Steffen et al. 844; Brondizio et al. 321; Pereira, Casraro and Freitas 535). The Anthropocene Working Group (2016) is not agreed with this thought that it takes off in 1950, with the increase in a human activity affecting the planet, and it is different from Holocene (Steffen et al. “The Anthropocene: From global change to planetary stewardship.”; Biermann et al. 343).

The H₂SO₄ (oxidation of SO₂) adds acidity to the environment and causes acid rain; the death of forests and species in oceans, especially in North American and East Asian regions. Crutzen is, even then, hopeful as the new educated generation of entrepreneurs is more conscious about the sustainability of natural resources and the environment. Along with him, the other environmentalists from the same school of thought are using different mediums to influence the future entrepreneurial futurists to minimize the speed it could not reverse the process of mass destruction (14-16).

Anthropocene epoch along with natural misfortunes such as a volcanic explosion, pandemic, nuclear war, an asteroid⁵ effect (Crutzen 16), shaping the human-environment relationship in a new dimension (Hamilton 391); and in this geographical shift of Anthropocene epoch, denial is useless and harmful (Harrington 490). All the Earth systems like physical, biological, geological, and social must address this challenge, globally. Humans are also the victims at the same time (Lovbrand et al. 3).

Stanley Cohen (2013), defined the state of denial as a mechanism of defense; Sigmund Freud projected in his paper *The Neuro-Psychoses of Defence* (1894), which is the negation of existing reality. In this state, the human mind is obstructed from the awareness from the outer world, especially where he has to handle some difficult situation.⁶ Denial against the identified knowledge will work as the further information will be too problematic; it is applied in routine life matters, as well as, on the social problems. He discussed the political ways in which continuous avoidance can worsen intimidating situations; media-based optical illusions are an important tool in this concern. The denial agents actively stand with the situation and do nothing (40-50).

Klein further explained that financial calamity, pandemics, and communal sectors further intense the condition of climate denial. She discussed the idea of geoengineering with sulfate-spraying helium balloons to minimize the effects of volcanic eruption on the atmosphere. These can be applied to slow down the speed of climate change (qtd. in Gray). Jill Jaeger's article *Sustainability Science* (2006) suggested channelizing the data that is based on sustainability sciences. This includes the keen observations of the natural sciences, social behaviors towards the environment components (e.g. forests, oceans, and biosphere), religious and ethnic powers, and most importantly the international political and economic interests; and their interpretations greater than before in these fields (24). Donna in her article *Weather by Jenny Offill review: A powerful portrait of climate anxiety* (2020), enlightened the role of the field of social sciences and humanities in the background of the Anthropocene epoch and climate angst (3). The idea of a hotter globe was not the strange one to the fiction; many writers like J. G. Ballard in *The Drowned World* (1963), Margaret Atwood's *MaddAddam trilogy* (2013), and Jenny Offill's *Weather* (2020) highlighted this issue (5). The comparative regional and international research; with the eloquent, germane, and practically applicable meters can provide a system of natural sustainability on scientific grounds.

Johnson claimed that Earth-shaping powers are drifting away from reality, even from ‘humanity’ (442). Madeleine Fagan (2017) in the article, *Security in the Anthropocene: Environment,*

⁴<https://www.ncdc.noaa.gov/sotc/global/202010#:~:text=The%20October%202020%20global%20land,1.67%C2%B0F%20were%20warmer>.

⁵ Charles Q. Choi defined in “Asteroids: Fun Facts and Information about Asteroids” the asteroids are rocky worlds revolving around the sun, known as planetoids (minor planets). The mass of all the asteroids is less than that of Earth's moon (2017). <https://www.space.com/51-asteroids-formation-discovery-and-exploration.html>

⁶ The defence mechanism is an unconscious psychological mechanism that reduces anxiety arising from unacceptable or potentially harmful stimuli. <https://www.britannica.com/topic/defense-mechanism>

ecology, escape exposed the forceful indulgence of the international powers (294). The impact of the Anthropocene epoch on food stock, pure water, and fundamental human needs such as medicine, a hygienic environment, schooling, and accommodation facilities are affecting humanity due to modified human behaviors (Ehlers and Krafft 6).

It is a new opening for the world beyond the nationalities, economic, and political borders to come out of denial and bring a frame for the Anthropocene catastrophe (Siddique et al. 2020). The artistic understandings of the danger and collective responsibility are the need of the current time (O Tuathail and Dalby 4; Lovbrand et al. 3).

These lines of action will help to analyze the effects of the Anthropocene epoch on natural sustainability through the characters and situations in the selected novels. The comparative analysis will help to understand the concerns of the writers towards environmental instability. The theoretical framework will help to screen the efforts of the artist community for the safety of future generations.

Literature as Starring Wheel:

The natural support system that humankind as the central geological zing is adoring, free of cost, can be prolonged unless humanity will stop destroying natural sustainability due to Anthropocene effects; or is confiscated by pandemics, natural disasters, or wars. Natural sustainability can be achieved only through the natural balance between the environmental pillars, and acceptance of the climate catastrophe as a reality; as the solution is available only when the problem is identified. The task is not much more difficult but the consistency of policies and the commitment of its policymakers and individuals is obligatory. International studies, geologists, engineers, and the artist community can light up the way for manhood towards the sustainable environmental organization in the Anthropocene epoch (Crutzen 17).

The observations of the selected authors through the mouthpiece of their characters and the situations that they faced will accumulate enough reasons to re-meditate about human actions. They must come out of the denial; all the global forces must set their priorities for the serious and practical measures for natural sustainability. All the responsible institutions and individuals can re-visit the phenomenon of political, social, and economic stability; and progress only be balanced by maintaining the steadiness of the nature-human relationship. It will also help the stakeholders to rejoin their hands to take ownership of their Anthropocene actions, so that, they can play their part for the sustainable future.

Amitav Ghosh, an America based Indian writer, presented his views through his fiction as every person has the idea of what is necessary for the world to be a liveable place, where the sea could not invade the homes. Humans could not be overwhelmed by the daily routine of life.

The book *The Great Derangement* (2016), inspects the communal denial of climate collapse in the Anthropocene epoch as he is of the view that why the fiction and non-fiction literature is only touching this issue, implicitly.

The novel Gun Island (2019), presented the idea that we could not avert our eyes, either powerful or powerless, and there is no question of surrender in front of controlling powers (200).

He is hopeful about the future groups of the artist who will discuss the issue to help the world to come out of denial predicament.

Tash Aw, a Malaysian writer, joined this journey of showcasing his concerns about the Anthropocene epoch with his novel *Five Star Billionaire* (2013) and put the end in *We, The Survivors* (2019). He discussed the late-capitalistic financial interests that are achieved on the cost of deforestation, maritime destruction, and atmospheric concentration with gasses. He discussed ecological migration. Arundhati Roy, an Indian writer discussed this issue in her novel *The Ministry of Utmost Happiness* (2017). The humans at the same time are the victims, as well, in the Anthropocene epoch. Her plot is constructively highlighting the themes of migration, unemployment, homelessness, and loneliness due to the construction of a Dam that consumed fertile village land.

Jenny Offill joined this fight with the weapon of her fiction literature. In her interview she openly acclaimed that the reality of climate change in the Anthropocene epoch is not a future, it is knocking at the doors, now (Ramakrishnan). Even though the achievement in technology and consensus on global interests is welcoming, the flaw is only one and that is the denial of the climate

change catastrophe that can demolish anything in a moment. She discussed the issue in her latest novel *Weather* (2020). She enforced the preparation for climate chaos by the brainwashing of the children through the mouthpiece of her protagonist Lizzie. She suggested calming down the fearful mind, and then teaching them how to plant, build, and protect (Offill 48). She discussed the literary and political aspects of the environmental change; along with the existing disorder of climate anxiety (Donna 6). Oxymoronically she symbolized the parent-children relation like plant-climate as she said that both are one in beginning like a plant grew up. Later they got separated into two and begat more...and then in love they consume them as well (Offill 87). She tried to explain that invest in children as we are people who set the pattern of their destruction in the form of the Anthropocene epoch. The massive destruction of the climate and natural resources will lead to a future that can be full of catastrophic incidents.

As natural instability is a matter of time that holds a history behind it. So, environmental pollution will consume them, and who is responsible for this pollution at the present moment!!! Tash Aw, Aravind Adiga, Mohsin Hamid, Amitav Ghosh, Arundhati Roy, Toni Morrison, and many other writers put the same idea that the concrete jungles are eating up the green jungles, so the temperatures are rising. But at the same time, they all are hopeful for a better future, and this will beget from the new educated generation of entrepreneurs.

Kathleen Dean Moore in *Anthropocene is the wrong word* (2013), seconds this thought that gratified and solipsistic⁷ humans can convince themselves that they are sculpting the shape of the Earth. And in a blink of time, we must be out of the boundaries of personal/national/political interests for the better future of our children. Otherwise, the whirlwind as the Earth's reaction will bring massive destruction (19). So we should work out of the political, social, and individual denial circles.

Natural Sustainability as a matter of time:

Agnew added through *Geopolitics: Re-visioning World Politics* (2003), that the world is holding the system of federations, which is based on the categorical political borders; where each has its well-equipped defense arrangement (25). Natural environmental sustainability is in danger due to the complex problem of climate change. The problem is, almost, addressing every discipline of life together with social, physical, and political sciences, economy, geology, psychology, etc. Gardiner (2011), pointed out that including all these categories the social ethics, on the individual and collective level, contribute a lot to the set pattern of human behaviors towards the environmental disciplines (20). On the global prospect, a new socioeconomic instability due to climate change is also adding another ideology of 'geopolitics' in the frame of the international relations that are re-shaping the borders. Geopolitics emerges during the 1980s to unshackle its domination across the borders (Chaturvedi and Doyle 5). Young (2012) in his article *Arctic tipping points: governance in turbulent times*, explained the situation as these interrelating forces are transmuting the environmental conditions speedily by opening the hidden constituencies to external powers (e.g. Arctic) (80).

In the modern world of expertise, late-capitalist punter, industrial technology, media, and the environmentalists are in search of glorifying the issue of climate change that is rapidly causing the evaporation of glaciers, pollutions, floods, and ultimate obliteration of humans in the limelight (Burke et al. 502; Harrington 480; Lovbrand et al. 1). The interrelated forces, related to natural instability are working in a circle; and the Anthropocene epoch is working in newly multifaceted, indefinite, and impulsive traditions (Pereira, Castro and Freitas 522), but most of the nations are not ready to accept the reality. According to Simangan (2020), the environmental activists put the efforts and know the Anthropocene epoch is becoming a debatable issue in international politics and societies (220).

Naomi Klein in her book *The Shock Doctrine* (2007) discussed the psychological issue of disavowal of climate change due to Anthropocene. This natural instability is not a matter of eye chunk but that of the policies of communal influence. The political aspect of this climate change attracts them but the quick response is not an important matter. Above all, if it carries an in-depth opportunity of their interest then they will hit the spot (20). Again in the book *This changes everything: Capitalism vs. the climate* (2014), she further elaborated the attitude of the full-backed traditionalist lobbies is setting the stage for climate change denial (25). John Gray in the article *This Changes Everything*:

⁷It is the denial of the existence of outside knowledge, that subsists in the world

Capitalism v/s the Climate review- Naomi Klein's powerful and urgent polemic (2014) explored the fact that on the scientific grounds it is proven that the Anthropocene climate change is on its way, rapidly along with the vague and uncertain political response; but if it will continue then the humans have to live in a transformed world. Governments must prioritize this issue in their agendas (7). The core issue in the American election 2020, was natural unsustainability due to climate change; where the denier was Mr. Donald Trump to reinsure stability of the oil and mineral industry, after quitting the 2015 Paris climate agreement. He followed the slogan 'America First.'⁸

Simon Dalby in *Security and environmental change* (2009) stated that it is because the political and economic powers are influencing the environmental policies. They protect their interests rather than to protect the world's future: urbanization, unplanned metropolitan cities, industrial mismanagement, deforestation, filthy rivers and oceans due to industrial and human waste, and the inclusion of harmful gasses in the environment. Most of the commanding hegemonies (e.g. political, social, and economic) are tailoring the mock environmental protection policies. This newly transformed world may be named as a late-capitalist Anthropocene epoch. Where business elites, international stakeholders, and common people must take up the responsibility, collectively for future generations (Imran and Hart 2019). It is now an internationally manmade hazard that could not be treated in customary means (12).

Danya Glabau (2017) in her article *Feminists write the Anthropocene: three tales of possibility in Late Capitalism* debated the relationship of species in late capitalism on Earth. Glabau quoted Shotwell's views about the Anthropocene as upset frogs in industrialized remaining. They all are tools for human prosperity. As a new shape of comradeship, the oppression systems are interrelated in the form of climate change, late capitalism, and the Anthropocene epoch (543).

Cameron Harrington in the article *The ends of the world: International relations and the Anthropocene* (2016), explained Crutzen's idea of the Anthropocene epoch defines the new practice of transnational departments and borders (482). The concept is appearing, now, on the screen of media and as a subject for scholars of different disciplines; Earth system science, geology, history, philosophy, arts, and sociology are critically taking up the issue as a matter of discussion (Biermann and Lovbrand 57; Hamilton et al. 4). (2013).⁹

In 2001, *United Nations Intergovernmental Panel on Climate Change* (IPCC) reported that natural, mechanical, social, and humanitarian sciences provide vital information about the anthropogenic intrusion with the environmental system to proliferate awareness and have significant policies (Gardiner19). Alisha Haridasani Gupta in the article (2019), discussed the presence of the themes of weather, climate, environment, Anthropocene actions, economic differences, and political behaviors in fiction and non-fiction literature. The writers discussed the importance of natural stability (*When Climate Change is Stranger than Fiction*). The fiction writers are now discussing it for the awareness of society to save the generations. As Amitav Ghosh is interview **discussed that** for the children and the future world one cannot just let it go. We could not deny the grim situations and scientific prophecies. The rational denial attitude will not work anymore (Gill). He shared the experience of his family's ecological refuge in his book *The Great Derangement* (2016), from Bangladesh. Their village was sunk under the river during the 1850s. He discussed the endangered animal species (wild and ocean) in his novels, *The Hungry Tide* (2000) and *Gun Island* (2019). According to Margret Atwood after world progress, people can be experienced in diversified perspectives (good/bad, right/wrong, the beneficiary/destructive, etc.), the world will ends once with the transformed climate

Roy in the essay collection *The Greater Common Good* (1999), also explained the interrelatedness of human and environmental factors affecting the climate. She also portrayed the ecological displacement of locals of Narmada valley due to Sardar Sarovar Dam. She discussed the effects of uranium excavation, and then in another essay, she discussed the illegal human activities in the forests in Chhattisgarh (12). These all antagonistic misuses of fertile rustic lands, nuclear projects,

⁸ <https://www.bbc.com/news/science-environment-54797743>

⁹ <https://artistsandclimatechange.com/2018/10/25/wild-authors-margaret-atwood/>

cheap Indian amenities due to the domination of the rich, American belligerence, and state insincerity are leading to environmental mutilation in the Anthropocene epoch.¹⁰ Bidisha Arundhati Roy in *My Seditious Heart* (2019) discussed the alarming situation, almost 20 years ago, about the big powers' capitalistic and dominating attitude (Bidisha 2019)¹¹.

Tash Aw also discussed climate change from the perspective of the Anthropocene epoch. In his debut novel *The Harmony Silk Factory* (2015), he discussed the new emerging generation and their problems due to inequality in the society of imperials. In his recent novel *We, The Survivors* (2019), he also portrayed the ecological displacement of the poor from illegal ways of Nepali and Bengali people. The abruptly rising sea level, due to glacier melting and rising temperatures, up to 1m every 20 years, transformed the life of significant coastal areas around the world. This demolished the agricultural land of the poor mother of the protagonist, Ah hook. His mother was a brave lady and she established her vegetable form in her village that was the coastal area. The high tides swayed away from their belongings.

Aravind Adiga in *The White Tiger* (2008) explained the contamination of the holy river Ganga and its effects on the species. Now it is not pure enough to facilitate the communities with its water for domestic and agricultural needs due to the hydro-projects and factories on its bank. A large flora and fauna developed on the Ganga grasslands. Ganga is full of ashes and industrial waste now. Balaram explained that no one is getting liberation from here (Krishna and Ramesh 3).¹² Mohsin Hamid discussed the same issues in his novels like *Moth Smoke* (2000) and *How to Get Filthy Rich in Rising Asia* (2013) that how to be on the top through every corrupt step. The tap water after boiling can be sold as mineral water. The high skyscrapers and deforestation are rising the temperatures inside the city areas; the heat waves.

Offill also takes part in this new genre of novel, related to the Anthropocene epoch. *Weather* (2020) joins the rank of Ali Smith's *Seasonal Quartet that is based on the name of four seasons; Autumn* (2016), *Winter* (2017), *Spring* (2019), and *Summer* (2020). Ben Lerner's *The Topeka School* (2019) discussed *Climate change technology and war*. John Lanchester's *The Wall* (2019) portrays the future of Britain that will erect the barriers along the shoreline to stop ecological refuge like America. Jonathan Lethem's *The Feral Detective* (2018), and Keith Gessen's *A Terrible Country* (2018) added the themes of political and ecological mollification that is hurting the global world. They interrelated the political and climate angsts with each other.

Nevertheless, the cost of Anthropocene foul playing is high and everyone is paying for it in the shape of flooding, pandemics, polluted environment, starvation, ecological refuge, and demise. Therefore, the fruits taste not as much sweet as the cost like high volumes, smog, and even vacations are unusual. The vacation places are receiving the garbage, coastal lines are greasy, oceans and rains are acidic that is a form of severe moral wrong. All the species are paying the cost of the prosperity of influential (Gardiner 153), in a new genre of Late capitalist Anthropocene epoch. John Robert McNeill in the book *Something new under the sun: An environmental history of the twentieth-century world* (2001) discussed this new wave in which the technology intellectuals, medical developments, the expansion in residential boundaries, and excess to the hidden areas of Earth; exploiting it with per capita ratio (23). The human population is expected to up to 9.7 billion by 2050 and with a proportion of 11 billion by 2100 (*World Population Prospects - Population Division*).¹³

Offill in *Weather* (2020), explain the navigation of physical and psychological penalties of the climate catastrophe. She focused on the individual behaviors, social realities, and the future of the generation through her main character, being a mother. Lizzie is very much anxious about the future of her son in the harmful environment, in their surroundings. Barbara Kingsolver also discussed the same realities in the novel *Flight Behaviour* (2012). Richard Powers discussed the resistance of Britishers against the Anthropocene realities in *The Overstory* (2018), where he tried to give voice

¹⁰ <https://www.theguardian.com/books/2019/jun/16/my-seditious-heart-arundhati-roy-review>

¹¹ <https://www.theguardian.com/books/2019/jun/16/my-seditious-heart-arundhati-roy-review>

¹² <http://www.rjelal.com/7.3.19/1-5%20M.%20BALA%20KRISHNA.pdf>

¹³ World Population Prospects 2019 (Department of Economic and Social Affairs Population Dynamics) <https://population.un.org/wpp/>

to species other than humans. Lovbrand (2020) and Imran (2019), second the point that the upcoming endangerments are often presented in the verbose narrative; they are indirect and transcontinental. So, here the world is interlocked and inter-reliant in this issue.

Discussion:

Humanity was the affection of humans towards the other humans, nonhumans, possessions, and resources that exist in the same natural environment with them. Harrington presented the opposite concept where the Cartesian separation intervened between the natural environment and human culture where the idol of modernism is terminated (493). The inert, dependent, and unpredictable relationship replaced the progressive one (Fagan 298).

Burke et al. in the article *Planet politics: A manifesto from the end of IR* (2016), stated that the profit-driven societies, especially of big clouts, are hazardously embroiled in the Anthropocene epoch; that is not only risking the national security but the future life span. The idea of 'otherness' is prevailing as the slogans like 'own interest' or 'I/we first.'¹⁴ In this passion, they avoided the existing reality of planet Earth that is the scale of environmental devastation is the matter of others. Nevertheless, it is bounded up with us in a common process that it no longer makes sense to speak of inside and outside (502-503).

The factors in the Anthropocene epoch are mostly appearing in the form of thawing ice caps, defrosting permafrost¹⁵, acidic rains and oceans, deforestation, tainted agricultural domains, and theatrical loss of species. The Anthropocene and natural reactions are so entangled on parallel lines; the societal fauna (Lovbrand et al. 4). It also affected the maritime life as Deen said to Piya that the animal relocations are the reaction of climate change...bring more intersecting events in the future' (*Gun Island* 259). Roy, Tash Aw, Ghosh, and Offill all the writers voiced these problems in their fiction. The water channels that were first affected by the humans are now affecting them too, in reaction. Roy (2017) portrayed that 'the man was rowing a bundle of mineral-water bottles and plastic jerrycans on the crossways of the dense, sluggish, and grimy waterway. Buffaloes...into the black water... and lush melons and glossy cucumbers grown up with factory waste...available on the roadways' (*The Ministry of Utmost Happiness* 184).

Tash Aw discussed the same issues. Ah Hock, the protagonist is a poor single mother's child. They are displaced in search of employment inside the country. The high tides drowned their vegetable farm and without social safety, it was a disaster that his mother got incurably ill. Ah, Hook shared the experience of his childhood when the people burn money there and promise for donations...but did not ready to realize about the pollution coloring the river, crossing through the cities and then dunk into the ocean' cities and emptied into near houses (*We, The Survivors* 33). Gulabiya was dreaming about 'a river... naked children were swimming with buffaloes under hot sun...leopard, sambar, and bear...Sal forest covered the hills near the village' (*The Ministry of Utmost Happiness* 94). It was just a dream as the Dam destroyed all the activities near the river in the village. Crutzen elaborated on this point that the dams on the main rivers of the world are thrashing back the sediments into the oceans (5). Ghosh explained that the Sundarbans forest riveted the cyclone effects and save the West Bengal. The deforestation destroyed the Nilima family in Lusibar Island; the storm ragged the huge portion of the island, houses... (*Gun Island* 18). The population is moving in search of livable regions due to external threats of temperature and sea level, along with hurricanes (Lovbrand et al. 3).

Cohen elaborated that denial, kills at any scale, and miseries are unanswerable challenges. The remedy is the awareness of this quandary (51). Arundhati Roy expressed it as, "...un-know specific things, she knew but did not wish to know. How it could be refused that the death due to stone-dust is the reaction of lungs not to set on fire" (*The Ministry of Utmost Happiness* 94). When Ah hook tried to talk about this pollution to his grandmother she got annoyed and repeated it like an 'interplanetary collision in another solar system.' She criticised the school for such preaching (*We, The Survivors* 33).

¹⁴ Referred to the slogan of America first, is now opted by many nations like India, Israel, any other rich nations.

¹⁵ Permafrost is layer of ice that located on the land or under the ocean, from an inch to several miles deep. It maintains the temperature below 0°C (32°F) for two or more years.

Jenny Offill used this concept in her novel *Weather* (2020), as people thought it crazy that the world is warming up but they do not want to acknowledge the reality, they know. They are busy in their routines, inner side, or solipsistic attitude (Ramakrishnan). The main character of Lizzie, a podcast writer, mother, caring sister, and librarian is on the edge of the fear of climate change and her son's future, but she tries to be intact with it. From the websites, she learns to recycle used materials like fish tin into a lamp. She considers the idea of migration towards a colder area with family. Lizzie as a mother also thought to move on to some other place, colder as compared to the present one but if climate departure happens... in New York when predicted... (*Weather* 67). In reply, she has no answer. Sylvia, an active environmentalist offers her a job to answer the mails. She is portraying the measures the environmentalist are trying to take up. Climate change encroached on normal life (Donna 8). Procrastination will be a moral catastrophe within the climate catastrophe.

Ghosh elaborated the reality as the high temperature has risen the tides and cyclones slowdown the farming in the Sundarbans (border of India and Bangladesh) that affected the lives of four million natives (*Gun Island* 14). The image is the same in Italy; ultimately both human and animal lives are at the stake of the state and political systems. He wrote the scene of fire and loss of artifacts in the Museum in Los Angeles six months earlier of that incident (Gupta). So he explained his concern about the damage of the Anthropocene epoch.

Roy's character knew that he would lose the job the next morning but even then dreaming about the existence of the beautiful village life images, now under the Dam water (*The Ministry of Utmost Happiness* 94). Jenny Offill in her interview, "Jenny Offill is a Climate Change Doomer" (2020), expresses her concern about the Anthropocene epoch, especially when it comes to the rich. In her apocalyptic style, she felt that wealthy Europeans are not much concerned about the climate change that is already here (Ramakrishnan). The Anthropocene formulates the political decisions with an indefinite design (F. Biermann 344; Lovbrand et al. 5). Tash Aw shows his concern that the poor are threatened by other humans, like them. Ah, Hook expressed his hopelessness after losing his drowned house under the flood that the poor could get any help, not from the government, that's for sure (*We, The Survivors* 165).

Human anxiety is knitted with the worldwide economic powers and the hi-tech systems (Dalby 13). The influential accessed the natural resources autonomously, and the number of people already at risk. It disseminates the structure of natural stability (Ribot 670). The protagonist Dinanth Datta (Deen), the book dealer, met the ecologically displaced species during his adventurous journeys; 'Bangladeshi in Libya, dolphins in the Mediterranean... toxic water snakes in California... xenophobia and technology (*Gun Island* 54). The scientist, Piya is the mouthpiece of Ghosh to expose the Anthropocene activities.

The individuals and economic, social, or political institutions as divided agencies are impairing the environment. Humanity can respond positively, but in a state of denial, they are ignoring reality. The current international system and corruption are destabilizing the governance system, globally (Gardiner 24). Tash Aw described the situation of ecological migrants, crossing the borders illegally that no one stops them or if they crossed them... dead flesh. The wages they were paid, destroying their soul ... children into thin old creatures. Customs officers... but pay them enough and they would not find the hideaway... afraid of realizing dead bodies or suffocated children... under chickens... you are paid to close eyelids against the dirt... (*We, The Survivors* 217). The rising sea levels, decreasing land area, and life-threatening weather reshaping the political zones around the globe (Chaturvedi and Doyle 8).

Tash Aw described the anxiety about the cut off trade from the distant places through oceans, and American politicians decide that Malaysian rubber gloves are not in need; shut down of ten factories... to save the fucking planet, Europeans veto the use of palm oil for food and the port is on its knees. The slipping moments of life go on, no return (*We, The Survivors* 254). The risk of climate instability begets inner conflict and dislodgment (Lovbrand et al. 2).

The overpopulation is another Anthropocene effect, hindering natural stability. The permafrost and glaciers are melting. The financially and politically big powers are investing in profitable shipping, remnant fuel mining, and fishing business to fulfill the needs of their nation from

the natural resources of the poor countries (Young 83). The technologically advanced countries as the United States, Canada, Japan, New Zealand, Russia, China, and Norway agreed that they will reduce 10% emission of CO₂ willingly by 2000. The political apathy is full of broken promises, destruction, and denial of climate change, a reality. The ecosystems should not cross the limit of their capacity (Gardiner 8).

Offill described it that the stability belongs to rich people, when Lizzie discussed the issue with Sylvia, she asked it is unsure to protect the family in 2047? ...it seems possible but...Sylvia abruptly said, "Then become rich, very, very rich" (*Weather* 68). According to Foucault (1984), the aim for power efficiency is overpriced. The individual is the element of enunciation of the powerful; their vehicle (5). Offill portrayed this idea in narrative form that in this late-capitalist world everyone is ready to grasp the opportunity to fulfill his needs, so as the big powers, one of the climbers after seeing the hungry bear told the other that he cannot outclass a bear, and the second one replied that his intention is only to outclass him not the bear (*Weather* 26). These late-capitalist societies are on the edge of suffering but compelling the vulnerably poor populations to migrate towards the urban sides as the laboring bodies (Sassen 90). Offill related the Trumpian climate politics to the Anthropocene epoch. Unmoved Ben to Lizzie's climate anxieties was reacted opposite against the Trump's decisions, as now should they have a gun. But it rejoiced Lizzie that the family confines were removed (qtd in. Scutts, "Jenny Offill: 'I No Longer Felt like It Wasn't My Fight'").

In the Silicon Valley conference, everyone was eager to know about the place to escape from the climate anxiety for their children (*Weather* 24); when they have no freedom to choose it (Scutts). Roy observed it as, "... diesel, alcohol, bullets, grenades, army provisions, razor wire, and timber. Whole forests were disappearing...Kashmiri labor and carpenters ... ganged for service. The loaded truck with supply from Jammu...return engraved walnut-wood furniture...furnished (*The Ministry of Utmost Happiness* 137). The people have no choice of freedom in this region. Everything, in the environment, interdependent, is in chains and ruined.

Anthropocene activities polluted the environment and the ideology of modernism make it more intense, the steel bubbles pass the shanty metropolises, industrial swamplands, through the hazy atmosphere...parallel to slums...The Edge... rural area transforming itself into the city, rapidly, awkwardly, and unfortunately into...A mall (*The Ministry of Utmost Happiness* 312). Ah, Hooks described the bad sanitation condition of colonies of the city that was horridly built without any planning as, "All this was taking place in a city made of stone and steel, indestructible, immune to floods and winds and mudslides" (*We, The Survivors* 136).

According to Crutzen (2006), the most important factor of Anthropocene activity is the erosion of soil that increased infertility, and smashed the agriculture industry; ultimately the food shortage (24). Ghosh through Kanai explained that ... the business and the boondocks, are face to face, at the borderline of Sundarbans or the profit and Nature... (*Gun Island* 14). Crutzen warned that if deforestation continues at the same pace then the exterminations of jungle territory rate will be tens of thousands of times higher (26). The Gun Merchant, with remaining wealth, placed his family in a concrete house for safety purposes in the village...on his return from the business trip from the city... a flood, snake hordes, and scorpions assaulted the house and family (*Gun Island* 56).

Ah Hook's vegetable farm was drowned by a huge tide and they lost everything, but even then with the later one they stooped putting any effort in the form of sandbags...the water subsided in few days...rebuilding process starts but after second they did not even think to do so...*Global warming*...flood will be normal from now on (*We, The Survivors*165). Ghosh explained it as that future information can help to take security measures, but often bring powerlessness (*Gun Island* 39). Denial is yet prevailing. According to Roy, "Life went on. Death went on. The war went on." (*The Ministry of Utmost Happiness* 94)

Natural instability is now reacting against the Anthropocene activities in the form of vulnerable threats to the poor's occupation (O'Brien et al. 11). This can be a source for the actors of international policy-making institutes to see beyond the specific state-centric refuge structures for the poor, and beyond their interests (Lovbrand et al. 2). According to Roy, the authorities ask for a fee for their opinions: Somebody has to pay the price for progress...to be out of despair... (*The Ministry*

of *Utmost Happiness* 83). United Nations Department of Economic and Social affairs suggested that sustainable urban expansion needs effective supervision of urban growth, particularly in low-wage countries, where the speed is fast (2018).¹⁶

Crutzen viewed that the cities on the erosive land are not preservers due to sedimentation. The Anthropocene effect on the environment is in transition (18). Roy described that multistory towers and factories replaced the forests, and rivers water is commercialized in plastic bottles, fresh fish is tinned, mountains are shinning like missiles due to the mining industry. Dams have eaten up the rivers...lit the lights and advertisements, but the villages and cities are empty...millions displace but where...(The *Ministry of Utmost Happiness* 82). Ghose also addresses this issue of the human-made concrete jungle from the brace, lead crystal, cement, and brick. They are all industry-based materials and polluting the environment as now the world is facing another danger of smog in absence of rain. It is because of urbanization. According to Ghosh, the cities are like portals of lost life ...awareness of mortality...fascination, and beauty of decay... long, gentle fading (*Gun Island* 140). Piya tracked the oil refinery, of that affluent was thrashed into the sea. The environmental activists were fighting for the matter... but the powerful people... politically influential ... called us "foreign agents...cut off funding...condemned our protests...with paid gundas...online threats, hate mail, constant trailing (*Gun Island* 91). The environmental activists are trying to get the people out of denial, and are in the situation of war, themselves.

Natural and seasonal food, like fish and vegetables, are available in all seasons. Technology, industry, and pesticides completed the task. Fish farming is a huge industry especially in winters, but it is thrashing the sea back from the shore by force and the waste is also trashed into the oceans as Ah Hook explained that the people visit the farm for quality products. We assure the filtration of water to make sure its freshness and sterility points...Sahara desert was not there... but money was there, so the business... (*We, The Survivors* 35).

The Anthropocene epoch makes the environmental risks and idea of customary security threats, more complex. Now the nation does not need security from the old-style enemy with weapons. The transformed patterns of environmental security are essential for the natural stability of all stakeholders. Individuals, states, organizations, and social communities need to nurture and promote a collective opinion according to shared abilities. Along with others, the literary world is facing challenges but writers can change the fictional practices with the inclusion of this theme of Anthropocene Epoch. They must set new patterned structures, with the help of technology and global financiers, of primary warning, quick response, and policies to mitigate the effects of the natural disasters (Lovbrand et al. 3).

Karen O'Brien in the article *Responding to environmental change: A new age for human geography?* (2011) explained that the sustainable development of the urbanization process is the requirement of this era to save the forests, coastal lines, and cultivated land. The world must implement a plan to control the population growth rate for the equality in case of natural resources. The political leaders and powers must think about the world as a whole, to have progress in social and economic sectors. In this way, they can encounter the problem of accommodation, conveyance, energy consumption, employment, literacy rate, health facilities, and fundamental rights of other species (544-545). There must be a strong bond between the metropolitan and countryside areas based on economic, social, cultural, and environmental relations.

All the writers are hopeful as Offill states that ... we are preparing for future age bands...we are all one people...hopes and dreams (*Weather* 88). Tash Aw expressed the interdependence of humans and the environment as, "...boundaries of land...bare earth and water... a sagacity of solidity with earth...a lifetime experience...A feeling of ownership... A place that owned me... sea was overwhelming us... our soil... solid. It would not leave... (*We, The Survivors*154). Further, he said that after the time passed there will be a sense of loss, '...what I had lost. Maybe nothing. Maybe everything...the realization of happening came in when it is already over...and can only regret it's passing (*We, The Survivors* 231).

¹⁶ <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>

This feeling of ownership ought to be the immediate step for a peaceful and stable environment. Humans must come out of the condition of denial. They must understand the reality and importance of the climate catastrophe as "...there's a scientific explanation of the happenings (*Gun Island* 258). They know the reality and now they should step up for the solutions. The media, technology, internal and external relations, and human behaviors collectively can minimize the effects of the Anthropocene epoch. It's the time of action as Offill stated that although the sound is bad it does not mean... end up where we do not want to be, we cannot retrace our steps (*Weather* 23).

The fences on borders, wrapping the properties, and poisoned meadows can have long-lasting effects (Saeed et al. 2020). None is thinking about the bitter reality that the cyclones can demolish the current generation and then left with no opportunity for their children. Humans as re-shapers of the Earth must keep in mind the Anthropocene effects, as they are calling the climate pandemonium, ocean turmoil, and land erosions. Moore beautifully defined it as, "if there is a voice in that whirlwind, it is not the voice of Man" (20).

Anthropocene is an opportunity and invitation to re-think our behaviors (individuals, institutions, international stakeholders, etc.) and policies. The new form of support system must be based on equal participation, unanimity, and impartiality beyond the borders, social and cultural structure, race, and religion (Burke et al. 507).

Conclusion

The natural sustainability in the Anthropocene epoch is the new matter of concern of the century. Human activities are negatively influencing the Earth's biosphere. The diversified blocs of the current generation are running the dissimilar ideologies for future generations. Arundhati Roy, Tash Aw, Amitav Ghosh, and Jenny Offill; all the writers discussed the issue in their narrative. Humanity could not be a singularity, as the environmental forces are all interdependent.

Paul J. Crutzen's ideology of the Anthropocene epoch involved many factors that are commencing the new age of modern challenges; creating security, financial, political, and social threats. The idea that humanity must be protected from external threats is precisely the same as the external environment must be protected from/by humans.

Humans are also a part of nature so Anthropocene demands the protection of humanity, one from one's selves (Lovbrand et al. 4). Anthropocene must not be categorized only by human preying of natural resources, emission of greenhouse gasses, deforestation, fossil fuel combustion level, population rate, anti-war policies, and recycling of industrial waste and used materials. The controlled measures of these factors can minimize the rise in temperature, rising sea level, maritime life, forests, erosion of Earth, ice caps, the ozone layer, which can guard the Earth's biosphere; ultimately humanity. Sustainable urbanization and balance between the facilities for the rural and urban population can minimize the catastrophe in the Anthropocene epoch. As it can help to accommodate the nations on an equality basis. They can enjoy social services like housing, education, health care, employment, and a pure and nontoxic environment (Imran et al. 2021).

The danger is from the late-capitalistic rationalized power idols and their political, economic, and social interest that they may use the artificial greenhouse gases in the environment; and increase in CO₂ can reduce the process of photosynthesis and agricultural production; as the combat weapons (Lewis 1996). Cohen's concept of denial must be considered seriously and they must think about their future generations, as they are the controller in this period and their generations will have to pay and face the reactions of the destructions due to climate change of the Earth.

The reality that exists, and is understood must be accepted. The individuals and the international stakeholders must acknowledge the scientific facts of climate change. Denial, in case, a serious matter of life can lead to a massive demolition. The ignorance of reality can be a moral problem. The imposition of the costs on generations for personal remunerations is a callous act. In the case of climate change, it can be in the form of physical suffering, disease, or death. The benefits can be luxurious, apparently, but in the long run, they can have unadorned effects. Anthropocene effects can be minimized by taking ownership of the Earth as the natural accommodation. The social communities must engage the current generation for the awareness campaigns to have a bright and peaceful future.

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