

THE ANTHROPOGENIC AND CLIMATE APOCALYPSE IN MICHAEL CRICHTON'S *STATE OF FEAR*: AN ECOCRITICAL STUDY

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Abstract

State of Fear (2004) by Michael Crichton (1942-2008) is an ecocriticism novel that delves into the sensitive topic of climate change. The ecocritical approach considers nature as a prevalent factor through the belief that natural forces widely determine human evolution as a community. According to ecocritics, the human world is not developed solely by linguistic and social factors (Milner 2022, p. 18). The two elements are just among the many aspects accountable for the presence and progress of people. Generally, life, including human life, is extremely influenced by the functions of nature and the environment. Therefore, according to the ecocriticism theory, nature is a critical element of human life.

After changing into the discipline of theory, eco-criticism was divided into sections. One of the parts developed into reviewing and interpreting the functions of nature, images, and natural items in the literacy works generated by scholars worldwide. Ecocriticism assumes a prominent position within the realm of literary studies due to its capacity to explore and elucidate the inherent ecological distinctions among various geographical settings. However, the main source of thoughts, study, and results in ecocritical research will always come from the authors and poets who are famous and well-developed in literature (Hansen 2020, p.146). Using an Ecocritical approach, the paper seeks to apply Michael Crichton's concepts of the environment through global warming. The paper aims to determine the relationship between literature and scientific data on global warming. Moreover, it analyzes the significant concepts of the novel *State of Fear* to develop a clear understanding of the author's perception and political ideologies concerning global warming. It also seeks to ascertain future global warming effects' validity.

KEY WORDS: Anthropogenic, Climate Apocalypse, *State of Fear*, Global Warming.

INTRODUCTION

State of Fear (2004) by Michael Crichton (Michael 1942-2008) is an ecocriticism novel that delves into the contentious topic of climate change. In the novel, Crichton refutes the idea that global warming is anthropogenic and also stresses that the alleged impending climate apocalypse is nothing but a fearmongering agenda created by unscrupulous scientists for their selfish gains. For a better understanding of this paper's topic and content, it is important to define ecocriticism, anthropogenic, and climate apocalypse, as well as give a brief overview of the novel's synopsis. By description, ecocriticism is an emerging literary genre that concentrates on how people and the environment relate (Garrard, 2023). Additionally, anthropogenic translates to a situation that is human-caused or human-induced (Baysal, 2021). Moreover, climate apocalypse is a phrase used to describe a projected situation involving probable human extinction and the universal downfall of human civilisation due to

indirect or direct consequences of human-triggered climate change (Baysal, 2021). On this premise, *State of Fear* looks at the claims of anthropogenic global warming and climate apocalypse from the lens of ecocriticism.

The synopsis of the novel can best be explained using four characters – Nicholas Drake, Peter Evans, George Morton, and Richard Kenner. Drake, who has a legal background, is a retired litigator and is now serving for his tenth year as the director of an organisation called the National Environmental Research Fund (NERF) (Crichton, 2004). Under the leadership of Drake, NERF embarks on ecological scare techniques to deceitfully acquire monetary donations, with the main donor being George Morton, a philanthropist who has a penchant for supporting environmental causes. NERF also funds the Environmental Liberation Front (ELF), an eco-terrorist organisation that is responsible for initiating artificial catastrophes to spread the fear of climate apocalypse in society and

unscrupulously generate more donations (Crichton, 2004).

Unlike Drake, Evans, who serves as Morton's attorney, is depicted as a good, yet ignorant lawyer. He does not have basic scientific knowledge, failing to quickly detect the fraudulent nature of activities conducted by NERF (Crichton, 2004). Additionally, Kenner, who also has a background in law, is now working as an agent for the National Security Intelligence Agency (NSIA), with his main assignment being conducting investigations on the hidden motives of NERF. It is Kenner who helps Evans understand that NERF is a scare-mongering environmental organisation. Eventually, Kenner joins hands with Evans and Morton to thwart the heinous plans of NERF and ELF (Crichton, 2004). Crichton communicates through the conversations among these four characters to show how the combination of science, media, and law negatively shapes public opinion on global warming. Nonetheless, Crichton's emphasis on the invalidity of scientific proof of global warming and climate apocalypse is largely unsubstantiated and unconvincing.

Crichton's Argument Against Scientific Backing of Global Warming:

Crichton maintains that scientific evidence concerning global warming is questionable, arguing that the rising global temperatures are due to the urban heat island effect. The author asserts that researchers have inaccurately asserted that global warming resulted in temperature rise during the 20th century (Oreskes & Conway, 2010). He maintains that these temperature increases can be accredited to urban development as opposed to greenhouse gases (Allen, 2005). He writes, "Cities in South Korea are heating rapidly. Manchester, England, is now 8 degrees warmer than the surrounding countryside. Even small towns are much hotter than the surrounding areas" (Crichton, 2004, pp. 369-370). According to Crichton, researchers are alluding to global warming because stations for measuring long-term temperatures are now in the vicinity of large cities. Although the urban heat island effect triggers augmented warming in urban centres, the planet's portion covered by cities is so small compared to the extensive area occupied by unpopulated mountains, rural landscapes, ice caps, and oceans, which have equally demonstrated significance proof of global warming (Weart, 2011). For example, while oceans are often miles away from major urban centres, research shows that there has been a

steady rise in ocean temperatures over the 20th century (National Academies Press, 2001). In the same vein, land glaciers are melting globally, yet they are not anywhere close to cities (Zwally, 2002). Moreover, the Intergovernmental Panel on Climate Change reviewed research-based data from peer-reviewed journals and concluded that although the urban heat island effect triggered about 0.05°C of the rise in universal average temperatures between 1900-1990, this contribution was negligible as it accounted for only 0.1% of the overall increase within that period (IPCC, 2001). More importantly, stations for monitoring temperatures are found in different locations globally – on both sea and land – and have demonstrated a reliable warming trend (Perry, 2006). In this sense, it is evident that Crichton's argument about urban heat islands, though valid to some extent, cannot disrepute the research-based evidence of global warming.

Crichton further discredits the scientific findings of global warming, arguing that many places globally have recorded substantial declines in temperatures. To prove his point, he uses graphical representations to demonstrate temperature drops over the 20th century in areas such as Navacerrada, Ann Arbor, and Punta Arenas in Spain, America, and Chile, respectively (Crichton, 2004). The author further argues that these areas have gotten colder since 1930 and that "if the globe is warming, these places have been left out" (Crichton, 2004, p. 374). Nevertheless, this opinion does not hold water as global warming entails an increase in average temperatures globally (Oreskes, 2004). As a result, temperature declines in some zones cannot be used as grounds to overrule the reality of global warming in the 20th century.

Crichton continues to doubt the validity of the scientific inferences of global warming referring to the 1940-1970 drops in temperature, pointing to discrepancies in research outcomes during this period. The author showcases a graphical representation of temperature drops between 1940-1970 against rising CO₂ levels, prompting the question "If rising carbon dioxide is the cause of rising temperatures, why didn't it cause temperatures to rise from 1940 to 1970?" (Crichton, 2004, p. 87). Through this question, the author attempts to demonstrate that this period's recorded upsurge of CO₂ levels points to rising greenhouse gas emissions, which, based on climate change science, should have led to corresponding temperature increases. According to Sandalow (2005), Crichton's argument is

correct as there was an average drop in temperatures between 1940-1970 in the Northern Hemisphere. Nonetheless, temperature is a product of numerous factors, which include but are not limited to greenhouse gases' warming effect, fluctuations in solar radiation, and CO₂. It is cooling factors like water vapour, cloud shifts, and ocean currents that triggered a drop in temperatures during this period (Ekwurzel, 2005). In this sense, these cooling factors in the Northern Hemisphere cannot be used to disprove the prevalence of human-triggered global warming in the 20th century.

Crichton stresses that the scientific proof of global warming raises suspicion because researchers have become materialistic and are willing to give fearmongering, erroneous findings in exchange for monetary benefits. In particular, the author compares scientists to renaissance painters, "commissioned to make the portrait the patron wants done. And if they are smart, they'll make sure their work subtly flatters the patron" (Crichton, 2004, p. 565). This statement reveals Crichton's contemptuous attitude towards researchers, particularly those focusing on global warming. It indicates that the author regards their findings as driven by selfish financial motives. For instance, Crichton depicts NERF as an organisation that conducts environmental studies to instil the fear of global warming in society to attract donations from concerned members of the public, such as Morton. Particularly, the organisation's director, Drake, believes that by providing fearmongering research findings and creating artificial catastrophes, there would be cause for alarm and fear of global warming, attracting more research funds (Ball, 2004). The author insinuates that researchers have been peddling the fear of global warming to show donors that it is an issue that requires urgent action. Moreover, in his closing remarks at the ending part of the novel, the author writes, "Scientists know that continued funding depends on delivering the results the funders desire. As a result, environmental organisation 'studies' are every bit as biased and suspect as industry 'studies'" (Crichton, 2004, p. 573). In this statement, Crichton suggests that studies regarding global warming are corrupted and should not be trusted. Although some rogue scientists may indeed be working for organisations with vested interests, Crichton's likening of scientists to renaissance painters is a testament to his subjectivity about the issue of

global warming, raising concerns over the credibility of his arguments.

Crichton further claims that scientists have formed an unholy alliance with lawyers and the media to create a dystopian society. According to the author, research organisations seek the services of lawyers because they belong to a very influential group in society. As a result, they are also driven by financial motives to promote the fearmongering agenda of scientists in matters pertaining to global warming. For instance, Evans reveals the likelihood of lawyers ganging up with scientists to scare the public about the perils of global warming, arguing that "One of the first things you learned in law school was that the law was not about truth" (Crichton, 2004, pp. 53-54). In the same vein, Crichton faults lawyers for representing clients in legal matters involving environmental themes yet they do not have scientific knowledge. Likewise, Vaughn (2010) maintains that cause-lawyering is a threat to sound policies regarding global warming as environmental organisations, such as NERF, use lawyers as litigators to handle matters that can best be handled by politicians and scientists. Additionally, Crichton shows how environmental organisations conspire with the media to trigger public fear concerning global warming. An example from the novel is when Drake gives specific instructions to the media team in charge of broadcasting information about climate on behalf of NERF, "No, I want 'Crisis' or 'Catastrophe.' 'The Crisis Ahead.' 'The Catastrophe Ahead.' That's better" (Crichton, 2004, p. 155). Drake's emphasis on the use of the words catastrophe or crisis in the news title is a portrayal of how the media can be used to influence mass opinion (Boykoff & Rajan, 2007). Moreover, in reference to how researchers use the media and lawyers to perpetrate the global warming scare, the author writes that the media relies on scare narratives to attract an audience and lawyers depend on perils to litigate (Crichton, 2004). On this premise, although Crichton's claims that scientists may be using the services of lawyers and the media to advance their selfish interests may be valid; however, generalising this activity is ill-founded as not all researchers, lawyers, and media outlets are unprincipled.

Crichton's Argument Against Scientific Backing of Climate Apocalypse:

In the novel, Crichton does not believe in the credibility of the climate apocalypse. According to the author, the idea of climate apocalypse due to human-induced global

warming is a hoax meant to create a society that lives in constant fear (Whistle.Blower, 2008). Given that climate apocalypse is based on future projections of climate patterns, the author writes that climate “is so complicated that no one has been able to predict future climate with accuracy” (Crichton, 2004, p. 248). Although the author’s view concerning the complexity of climate is reliable, there is a higher possibility of giving reliable predictions of future climate patterns, especially about the consequences of unchecked global warming (Pearce, 2010). In particular, the continued prevalence of greenhouse gas emissions means that the ozone layer will be depleted continually, which may pose a threat to human existence due to the environmental impacts of global warming (Rust, 2006). Thus, Crichton’s rejection of the possibility of climate apocalypse is unsubstantiated as science has shown that global warming is detrimental to people’s existence.

CONCLUSION

Although Crichton’s novel stirs discourse about the negative side of studies revolving around global warming, his arguments about the inaccuracy of the scientific proof of the environmental issue and climate apocalypse are largely groundless and unpersuasive. The author’s views about the concept of urban heat island effect and temperature drops in some specific areas of the globe are not backed by scientific facts. Moreover, Crichton's subjective opinions about scientists skewing research findings to suit the needs of their financiers for monetary benefits show contempt and make his arguments regarding the use of global warming to spread fear questionable. In the same vein, while some scientists may collude with lawyers and the media to inculcate the ecological scare in society, it is inaccurate to paint all researchers, lawyers, and media platforms as dishonest.

REFERENCES

Allen, M. (2005). A novel view of global warming. *Nature*, 433(7023), 198–198. <https://doi.org/10.1038/433198a>

Ball, P. (2004). Brought to book. *Nature*. <https://doi.org/10.1038/news041220-4>

Baysal, K. (Ed.). (2021). *Apocalyptic Visions in the Anthropocene and the Rise of Climate Fiction*. Cambridge Scholars Publishing.

Boykoff, M. T., & Rajan, S. R. (2007). Signals and noise. Mass-media coverage of climate change in the USA and the UK. *EMBO Reports*, 8(3), 207–211. <https://doi.org/10.1038/sj.embor.7400924>

Crichton, M. (2004). *State of Fear*. Harper Collins Publishers.

Ekwurzel, B. (2005). *Crichton Thriller State of Fear / Union of Concerned Scientists*. www.ucsusa.org. <https://www.ucsusa.org/resources/crichton-thriller-state-fear#1>

Garrard, G. (2023). *Ecocriticism*. Taylor & Francis.

Hansen, C., 2020. Ecothriller heroics: Affect and spectatorship in fictions of climate change. *Journal of European Popular Culture*, 11(2), pp.145-156. https://doi.org/10.1386/jepc_00023_1

IPCC. (2001). *Climate Change 2001: Intergovernmental Panel on Climate Change Third Assessment Report*. https://www.ipcc.ch/site/assets/uploads/2018/05/SYR_TAR_full_report.pdf

Milner, A., 2022. *ANTHROPOCENE FICTION AND WORLD-SYSTEMS ANALYSIS ANDREW MILNER AND JR BURGMANN*. *New Perspectives on International Comparative Literature*, p.18. https://books.google.co.ke/books?hl=en&lr=&id=spiDEAAAQBAJ&oi=fnd&pg=PA18&dq=michael+crichton%27s+global+warming&ots=eJa7K6TEj3&sig=8bbQtytvJRj6hAAca1KmhWgoYmE&redir_esc=y#v=onepage&q&f=false

National Academies Press. (2001). *Climate Change Science: An Analysis of Some Key Questions*. In nap.nationalacademies.org. National Academy of Sciences. <https://nap.nationalacademies.org/read/10139/chapter/1>

Oreskes, N. (2004). The Scientific Consensus on Climate Change. *Science*, 306(5702), 1686–1686. <https://doi.org/10.1126/science.1103618>

Oreskes, N., & Conway, E. M. (2010). *Merchants of doubt : how a handful of scientists obscured the truth on issues from tobacco smoke to global warming*. Bloomsbury.

Pearce, F. (2010). *The Climate Files: The Battle for the Truth about Global Warming*. Guardian Books/Random House.

- Perry, G. (2006). Global Climate Change: Should You Care? *IGUANA*, 13(2), 156–159.
- Rust, B. W. (2006). Carbon Dioxide, Global Warming, and Michael Crichton's "State of Fear." *Computing Science and Statistics*, 37, 1–15.
- Sandalow, D. B. (2005). *Michael Crichton and Global Warming*. Brookings. <https://www.brookings.edu/articles/michael-crichton-and-global-warming/>
- Vaughn, L. B. (2010). A Few Inconvenient Truths about Michael Crichton's State Of Fear: Lawyers, Causes and Science. *Seton Hall Journal of Sports and Entertainment Law*, 49–84.
- Weart, S. (2011). Global warming: How skepticism became denial. *Bulletin of the Atomic Scientists*, 67(1), 41–50. <https://doi.org/10.1177/0096340210392966>
- Whistle Blower. (2008, November 7). *Michael Crichton, author of State of Fear, leaves global warming disinformation legacy*. Government Accountability Project. <https://whistleblower.org/politicization-of-climate-science/global-warming-denial-machine/michael-crichton-author-of-state-of-fear-leaves-global-warming-disinformation-legacy/>
- Zwally, H. J. (2002). Surface Melt-Induced Acceleration of Greenland Ice-Sheet Flow. *Science*, 297(5579), 218–222. <https://doi.org/10.1126/science.1072708>

كارىگەرى مرۇبىي و لەناو و چوونى كەشووھەوا لە رۇمانى "دۇخى ترسى" ى مايكل كرايتن: ليكۇلپنە وەبەكى رەخنەيى ژىنگەيى

پووختە

بەر قسە كردن لە سەر ئىكۆكرىتسىزىم، بەگشتى وەك پروانگەيەكى تەقلىدى، بوارەكانى زمانەوانى و كۆمەلايەتى و كولتورى بە گرنىگ سەير دەكرين. رېبازى ئىكۆكرىتسىكى سروشت وەك فاكترى باو دەزانىت لە رېگەكى ئەو باوئەرى كە ھىزە سروشتىيەكان بە شىوئەيەكى بەرفراوان پەرەسەندى مرۇف وەك كۆمەلگەيەك ديارى دەكەن. بە گوپرى رەخنەگرانى ئىكۆ، جىھانى مرۇف تەنيا بە ھۆى ھۆكارە زمانەوانى و كۆمەلايەتتىيەكانەو پەرى نە سەندوو. ئەو دوو ھۆكارە تەنھا لەنپو ئەو لايەنە زۆرانەدان كە لپرسىنەو لە ھەبوون و پيشكەوتنى مرۇفەكان دەكەن. بەگشتى ژيان، بە ژيانى مرۇفئىشەو، لە رادەبەدەر لە ژىر كارىگەرى كارەكانى سروشت و ژىنگەدايە. بۆيە بەپىي تپۆرى رەخنەيى ژىنگەيى، سروشت ھۆكارىكى رەخنەگرانى ژيانى مرۇفە .

دواى گۆرىنى بۇ دىسپىلنى تپۆرى، رەخنەيى ژىنگەيى بەسەر چەند بەشپىكدا دابەشكرا. يەكپىك لە بەشەكان پەرى سەند و بوو بە پىداچوونەو و لىكدانەوئەى ئەركەكانى سروشت و وپنە و بابەتە سروشتىيەكان لە بەرھەمە زانستىيەكاندا كە لەلايەن زانايانەو لە سەرانسەرى جىھاندا دروستكراون. . رەخنەيى ئىكۆ ياخود ژىنگەيى ئەدەبىياتى سەرەتايىيە، چونكە جىاوازييە سروشتىيەكانى شوپنى جىاواز لەبەرچاو دەگرىت. بەلام سەرچاوەى سەرەكى بىرکردنەو و لىكۇلپنەو و ئەنجامەكان لە لىكۇلپنەو ئىكۆ رەخنەيەكان ھەميشە لەو نووسەر و شاعىرانەو دپت كە لە ئەدەبدا بەناوبانگن و گەشەيان كروو. بە بەكارھىنانى رېبازىكى گرىنگى ئىكۆ، توپىزىنەوئەك ھەولەدەدات چەمكەكانى مايكل كرايتن سەبارەت بە ژىنگە لە رېگەكى گەرمبوونى جىھانەو بەكاربھىنپت. ئامانجى توپىزىنەوئەك ديارىكردى پەيوەندى نپوان ئەدەبىيات و داتى زانستى لەسەر گەرمبوونى جىھانە. جگە لەوئەش چەمكە گرنگەكانى رۇمانى (بارى ترس) شى دەكاتەو بە پەرەپىدانى تىگەپىشتىكى روون لە تپروانىن و ئايدۆلۆژيا سىياسىيەكانى نووسەر سەبارەت بە گەرمبوونى جىھان. ھەروەھا ھەولەدەدات رەوايەتى كارىگەرىيەكانى گەرمبوونى جىھان لە داھاتوودا ديارى بكات .

وشە سەرەكپىيەكان: كارىگەرى مرۇبىي، لەناو و چوونى كەشووھەوا، (بارى ترس)، گەرمبوونى جىھان