

**THE DEATH OF NATURE PORTRAITS IN WILLIAM
KAMKWAMBA AND BRYAN MEALER'S
*THE BOY WHO HARNESSSED THE WIND***

THESIS

By:
Dilla Rachma Aprilia
NIM 17320138



**DEPARTMENT OF ENGLISH LITERATURE
FACULTY OF HUMANITIES
UNIVERSITAS ISLAM NEGERI MAULANA MALIK
IBRAHIM MALANG
2022**

**THE DEATH OF NATURE PORTRAITS IN WILLIAM
KAMKWAMBA AND BRYAN MEALER'S
*THE BOY WHO HARNESSSED THE WIND***

THESIS

Presented to

Universitas Islam Negeri Maulana Malik Ibrahim Malang

In Partial Fulfillment of the Requirements for the Degree of *Sarjana Sastra* (S.S.)

By:

Dilla Rachma Aprilia

NIM 17320138

Advisor:

Agung Wiranata Kusuma, M.A.

NIP 198402072015031004



**DEPARTMENT OF ENGLISH LITERATURE
FACULTY OF HUMANITIES
UNIVERSITAS ISLAM NEGERI MAULANA MALIK
IBRAHIM MALANG
2022**


STATEMENT OF AUTHORSHIP

I state that the thesis entitled "*The Death of Nature Portraits in William Kambkawamba and Bryan Mealer's The Boy Who Harnessed The Wind*" is my original work. I do not include any materials previously written or published by another person, except those cited as references and written in the bibliography. Hereby, if there is an objection or claim, I am the only person who is responsible for that.

Malang, June 4th, 2022

The Researcher




Dilla Rachma Aprilia
NIM. 17320138

APPROVAL SHEET

This is to certify that Dilla Rachma Aprilia's thesis entitled *The Death of Nature Portraits in William Kambkawamba and Bryan Mealer's The Boy Who Harnessed The Wind* has been approved for thesis examination at the Faculty of Humanities, Universitas Islam Negeri Maulana Malik Ibrahim Malang, as one of the requirements for the degree of *Sarjana Sastra* (S. S.).

Malang, June 4th, 2022

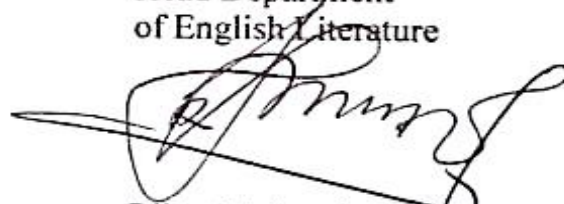
Approved by

Advisor

Head Department
of English Literature



Agung Wiranata Kusuma, M.A.
NIP. 198402072015031004



Ribut Wahyudi, M.Ed., Ph.D
NIP. 198112052011011007

Acknowledged by
The Dean of Faculty of Humanities,



Dr. M. Faisol, M.Ag.
NIP. 197401012003121003



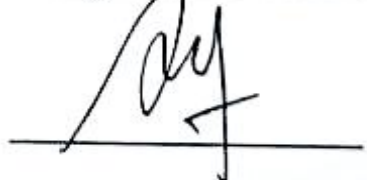
LEGITIMATION SHEET

This is to certify that Dilla Rachma Aprilia's thesis entitled *The Death of Nature Portraits in William Kambkawamba and Bryan Mealer's The Boy Who Harnessed The Wind* has been approved by The Board of Examiners as the requirement for the degree of *Sarjana Sastra* (S.S.) in English Letter Department.

Malang, June 4th, 2022

The Board of Examiners

Signatures

- | | | |
|---|-----------------|---|
| 1. Dr. Hj. Istiadah, M.A.
NIP. 196703131992032002 | (Main Examiner) |  |
| 2. Asni Furaida, M.A.
NIP. 19880711201802012182 | (Chairman) |  |
| 3. Agung Wiranata Kusuma, M.A.
NIP. 198402072015031004 | (Advisor) |  |

Approved by
The Dean of Faculty of Humanities,



MOTTO

“And among His signs is the creation of the heavens and the earth, and the difference of your languages and color. Verily, in that are indeed signs for men of sound knowledge”

(Ar-Ruum: 22)

DEDICATION

This thesis is dedicated to my beloved parents for their endless support and prayers, my little brothers who are always proud and pamper me, and my dearest men who always believes that I can get through everything with a great smile.

Thank you for patiently waiting for me.

ACKNOWLEDGMENTS

In the name of Allah SWT, the most Beneficent, the most Merciful. Glory and Praises to be Him for all His mercies and love that given to me, the weakness creature. Due to of His guidance I can smoothly finish this thesis entitled *The Death of Nature Portraits in William Kambkawamba and Bryan Mealer's The Boy Who Harnessed The Wind*. Peace and salutation to our prophet Muhammad SAW who always guiding us to become the best creature with the norm of Islam.

I would like to present my gratitude and thank to all of the people who helped me in writing this thesis. My first gratitude goes to my advisor, Agung Wiranata Kusuma, M.A. who patiently gives me constructive advice, critics and comments for the better thesis, thank you for giving me very valuable ideas and moral encouragement, sir. Also, thanks to the two persons that always guides my academic plan, Mrs. Habiba Al Umami, S.S., M. Hum., and Mr. Masrokhin, M.A. Furthermore, I want to deliver my high gratitude to Dr. KH. Akhmad Muzakki, M.A. who always reminds me to finish my thesis quickly. Thanks for your support and endless prayers. Finally, I would like to present my thanks to Dr. M. Faisol, M.Ag. as the dean of faculty of humanities, Mr. Ribut Wahyudi, M.Ed., Ph.D as the head of english literature department, and all humanities faculty staff who have helped my thesis process.

In addition, thank you very much to my colleagues at Translation Linker who always support me, my manager who every day always gives a mountain word count of translations, who corrects and demands me to deepen my

translation knowledge so that I have to steal time to complete this thesis. Thank you for reminds me that time and opportunity are the most valuable things in this life.

Above all, thanks to my parents that always support me through their prayers and couragements. My mom, Erna Susanti, who always said “Dilla can definitely do it.” My Dad, Bapak Sulik, who always believed that I would succeed and always made him proud. Thank you to my dearest brother, M. Choirur Rozi, who has been a motivation for me to be a great sister and a good example for him. Furthermore, thank you to my dearest man, Reno Yanuari Akbar, for always support, encourage, and remind me to always be grateful, patient, and happy.

Last but not least, I would like to thank all of my friends around me, Della, Ulfa, Riris, Gefi, Iim, Nahdiyah, Nicky, Mbak Aysha, Kak Habibi, and Kak Zin and who that I cannot mention one by one for their support. Thanks for your kindness and best wishes. May Allah SWT always provides protection wherever you are.

Malang, June 4th 2022

A handwritten signature in black ink, appearing to be 'Dilla Rachma Aprilia', written over a horizontal line.

Dilla Rachma Aprilia

ABSTRACT

Aprilia, Dilla Rachma. 2022. **The Death of Nature Portraits in William Kambkawamba and Bryan Mealer's *The Boy Who Harnessed The Wind***. Thesis. Malang: English Literature, Faculty of Humanities, State Islamic University of Maulana Malik Ibrahim Malang. Supervisor: Agung Wiranata Kusuma, M.A.

Keywords: Ecocriticism, Human-Nature Relationships, Natural Disasters.

Nature is the most valuable asset in human life. Many people refer to it as the 'Mother of Life' which means the source of life. Nature has existed for more than 4.5 million years before humans. The presence of humans actually causes a lot of natural damage such as floods, famine, and environmental crises. This happens due to deforestation and human greed in exploiting nature. This study aims to analyze the death nature in Malawi as depicted in the William Kambkwamba and Bryan Mealer's novel *The Boy Who Harnessed The Wind*, the relationship between humans and nature portrayed in the novel and William's role in saving Malawi's environmental degradation depicted in the novel. The researcher analyzed the data using ecocriticism theory by Greg Garrard. The research primary data comes from words, phrases, clauses, sentences, dialogues and statements put forward by the characters that related to the research questions. The analysis process begins with reading the novel, understanding and classifying data according to the research problem, linking them to ecocriticism theory, and making conclusions from the results of the analysis. The result of this study found that Malawi's environmental conditions are very concerning. Malawi's geographical location has an unpredictable climate and weather that causes frequent natural disasters such as droughts, floods, and windstorm. Deforestation and land exploitation are the main factors in damaging the environment. Corrupt governments that implement bad environmental policies are also the factor that exacerbates the situation. However, despite difficulties and a lack of support from Malawians, William as the main character successfully save the environment by building a windmill out of recycled materials using reduce, reuse, recycle, reject, and rethink method. His dedication, enthusiasm, innovation, and love for the environment should become an inspiration to many people.

مستخلص البحث

أبريليا ، ديلا رحما. 2022. موت بورتريتهات الطبيعة في *The Boy Who Harnessed The Wind* على ويليام كامبكوامبا وبرايان ميلر. البحث الجامعي. مالانج: الأدب الإنجليزي، كلية العلوم الإنسانية، جامعة مولانا مالك إبراهيم الإسلامية الحكومية مالانج. المشرف: أغونج ويراناتا كوسوما الماجستير.

الكلمات المفتاحية: النقد البيئية، العلاقة بين الإنسان والطبيعة، فساد طبيعي.

الطبيعة هي أثن الأصول في حياة الإنسان. لذلك يسميها كثير من الناس 'Mother of Life' أي أم الحياة. لقد وجدت العالم منذ أكثر من 4.5 مليون سنة قبل أن يعيش الناس في هذا العالم. ويتسبب وجود الناس إلى كثير من الفساد الطبيعي مثل الفيضان والمجاعة والأزمة البيئية. ويحدث هذا بسبب إزالة الغابات وجشع الإنسان في استغلال الطبيعة. يهدف هذا البحث إلى تحليل الحالة المتضررة لبيئة ملاوي وتحليل العلاقة بين الإنسان والطبيعة وتحليل دور ويليام في معالجة الضرر البيئي لملاوي في *The Boy Who Harnessed The Wind* من تأليف ويليام كامبكوامبا وبرايان ميلر. في عملية التحليل، استخدمت الباحثة اظرية النقد البيئية التي يرأسها جريج جارارد. وساعدت هذه النظرية للباحثة على فهم العلاقة بين الإنسان والطبيعة في الرواية ومصدر البيانات الأساسية لهذا البحث من الكلمة والعبارة والجملة والجمل والحوارات والعبارات التي تعبرها الشخصيات حيث تصور مرتبطة لهذا البحث. وتبدأ عملية التحليل بقراءة الأعمال الأدبية بشكل متكرر وفهم البيانات وتصنيفها وفقاً لصياغة المشكلة في البحث وتعلقها بنظرية النقد البيئية واستنتاجتها من نتائج التحليل. بناءً على التحليل الذي تم إجراؤه، وجدت الباحثة أن حالة البيئة في ملاوي مقلقة جدا. الموقع الجغرافي لملاوي في المرتفعات يجعل المناخ والطقس متغيرين بحيث تحدث فساد الطبيعة متعددًا مثل الجفاف والفيضان والإعصار. وتعد إزالة الغابات واستغلال الطبيعة على نطاق واسع من العوامل الرئيسية في إفساد البيئة. والحكومة الفاسدة التي تضع سياسات سيئة عن البيئة هي أيضاً العامل الذي يجعل الحالة أسوأ. وبذلك، نجح ويليام كالشخصية الرئيسية في الرواية إنقاذ البيئة وبناء طاحونة هوائية من الفضلة المستعملة. وفي أثناء خضم القيود ونقص الدعم من شعب ملاوي، استمر ويليام المحاولة لتحقيق ابتكاراته حتى نجح في بناء طاحونة هوائية من الفضلة المستعملة باستخدام طريقة التقليل وإعادة الاستخدام وإعادة التدوير والرفض وإعادة التفكير. يجب أن يجعل عمله الجاد وحماسه وابتكاره وحبه للبيئة مصدر إلهام لكثير من الناس.

ABSTRAK

Aprilia, Dilla Rachma. 2022. **The Death of Nature Portraits in William Kambkawamba and Bryan Mealer's *The Boy Who Harnessed The Wind***. Skripsi. Malang: Sastra Inggris, Fakultas Humaniora, Universitas Islam Negeri Maulana Malik Ibrahim Malang. Pembimbing: Agung Wiranata Kusuma, M.A.

Kata Kunci: Ekokritik, Hubungan Antara Manusia dan Alam, Bencana Alam.

Alam adalah aset yang paling berharga dalam kehidupan manusia. Banyak orang menyebutnya sebagai 'Mother of Life' yang berarti induk kehidupan. Alam telah ada lebih dari 4,5 juta tahun yang lalu sebelum manusia. Kehadiran manusia justru menimbulkan banyak kerusakan alam seperti banjir, kelaparan, dan krisis lingkungan. Hal tersebut terjadi akibat deforestasi dan keserakahan manusia dalam mengeksploitasi alam. Penelitian ini bertujuan untuk menganalisis kondisi rusaknya lingkungan Malawi yang tergambar dalam novel *The Boy Who Harnessed The Wind* karya William Kambkwamba dan Bryan Mealer, hubungan antara manusia dan alam yang tergambar dalam novel, dan peran William dalam menangani kerusakan lingkungan Malawi yang tergambar dalam novel tersebut. Peneliti menganalisis data dengan menggunakan teori ekokritik Greg Garrard. Data primer penelitian ini bersumber dari kata, frasa, klausa, kalimat, dialog serta pernyataan para tokohnya yang terkait dengan rumusan penelitian. Proses analisis dimulai dengan membaca karya sastra, memahami dan mengklasifikasikan data sesuai dengan rumusan masalah, mengaitkannya dengan teori ekokritik, serta membuat kesimpulan dari hasil analisis yang dilakukan. Hasil penelitian ini menunjukkan bahwa kondisi lingkungan Malawi sangatlah memprihatinkan. Lokasi geografis Malawi memiliki iklim dan cuaca yang tidak menentu hingga sering terjadi bencana alam seperti kekeringan, banjir, dan angin badai. Deforestasi dan eksploitasi lahan menjadi faktor utama dalam merusak lingkungan. Pemerintah korup yang membuat kebijakan buruk terhadap lingkungan juga menjadi pihak yang memperburuk keadaan. Namun, ditengah keterbatasan serta kurangnya dukungan dari masyarakat Malawi, sang tokoh utama, William, tetap berjuang mewujudkan inovasinya hingga ia berhasil mendirikan kincir angin dari bahan bekas dengan metode *reduce, reuse, recycle, refuse, and rethink*. Kerja keras, semangat, inovasi dan kecintaannya terhadap lingkungan patut menjadi inspirasi bagi banyak orang.

TABLE OF CONTENTS

THESIS	i
STATEMENT OF AUTHORSHIP	ii
APPROVAL SHEET	iii
LEGITIMATION SHEET	iv
MOTTO	iv
DEDICATION	vi
ACKNOWLEDGEMENTS	vii
ABSTRACT	ix
مستخلص البحث	x
ABSTRAK	xi
TABLE OF CONTENTS	xii
LIST OF FIGURES	xv
LIST OF APPENDICES	xvi
CHAPTER I INTRODUCTION	1
A. Background of The Study	1
B. Research Problem	8
C. Objectives of The Research	8
D. Scope and Limitation	9
E. Significant Research	9
F. Previous Study	10
G. Definition of Key Terms	13
CHAPTER II REVIEW ON RELATED LITERATURE	15
A. Theoretical Framework	15
1. The Definition of Ecocriticism	15
2. History of Ecocriticism Theory	16
3. Ecocriticism as a Literary Criticism	18
B. Greg Garrard's Ecocriticism Concept	19
1. Pollution	20
2. Position	21

3. Pastoral	26
4. Wilderness	28
5. Apocalyps	28
6. Dwelling	29
7. Animals	29
8. Earth	30
C. Respond to Human- Nature Relationship.....	31
D. The Death of Nature: About Environmental Damage.....	32
E. Respond to Environmental Sensitivity and Love Nature	33
CHAPTER III RESEARCH METHOD	36
A. Research Design	36
B. Data Sources	37
C. Data Collection.....	37
D. Data Analysis and Interpretation	38
CHAPTER IV FINDING AND DISCUSSION.....	39
A. Malawi's Environmental Conditions	39
1. Malawi's Geographical and Socio-cultural Situation	40
2. Natural Phenomena and Disasters in Malawi.....	47
3. The Death of Nature's impact on Humans and Animals in Malawi	51
B. Human-nature Relationship According to The Main Character Illustrated in The Novel	68
1. Government-Nature Relationship.....	68
2. Malawian's Environmental Backwardness.....	72
C. William's role in solving the problem of Malawi's environmental damage	74
1. Build a Windmill	74
2. 6r (Reduce, Reuse, Recycle, Repair, Refuse, Rethink) practice	79
CHAPTER V CONCLUSION	85
A. Conclusion.....	85
B. Suggestion	86
BIBLIOGRAPHY	88

CURRICULUM VITAE	97
OVERVIEW	98
APPENDICES	100
A. Malawi’s Environmental Conditions.....	101
B. Human-nature Relationship According to The Main Character Illustrated in The Novel.....	109
C. The Role of William in Solving The Problem of Malawi's Environmental Damage.....	111

LIST OF FIGURES

Figure 1. 1 Malawi's Map Illustration	40
---	----

LIST OF APPENDICES

A. Malawi's Environmental Conditions	101
B. Human-Nature Relationship According to The Main Character in The Novel.....	109
C. The Role of William in Solving The Problem of Malawi's Environmental damage	109

CHAPTER I

INTRODUCTION

This chapter covers several points, i.e., background of the study, research question, objective of the study, scope and limitation, definition of key term, previous study, research method, data and data source, step of data collection, and step of data analysis.

A. Background of The Study

Nature is the human's most valuable asset in this life. It can be said as a giant storehouse of useful materials (Apriati, 2013). Many people call nature as a mother of life because it has been existed for over 4.5 billion years ago. It means 22,500 times longer than humans (Nature is Speaking, 2014). Actually, nature does not really need people, but people need it because their future depends on it. When nature thrives, people thrive. When it falters, people falter. What people choose to live each day, whether regard or disregard it, the nature will determine the people's fate. Besides that, nature is more than just a space with a natural element. It comprises complex features and landscapes like ecosystem, environment, animals, and humans. As a result, the human-nature relationship cannot be separated (Tillmann et al., 2018).

According to Angele Renaud, humans are like the controllers who become responsible for any environmental phenomena (Renaud, 2014). Recent innovations and developments often have an impact on natural and environmental conditions. Therefore, the human-nature relationship becomes an interesting topic

to discuss. Many people are inspired and concerned by its relationship. Mainly, writers and authors. Several themes about the death of nature have been addressed in their literary works, including the death of nature, famine, disease outbreaks, pollution, positions, pastoral, wilderness, apocalypse, dwelling, animals, and anything else about the earth (Garrard, 2004). These problems occur as a result of human exploitation and poor environmental management. Actually, the earth has been exploited from time to time and it starts being damaged (John, 2012). Orville and Wright also said that the ecosystem, goods and services that support human welfare are decreasing gradually (Orville & Wright, 2008).

Some natural damages due to human activities has been discussed in many literary works, especially prose. Prose which in this study represents by Novel, is one of the literary genres that has become a very near mirror of life. It presents a documentary picture of life, contain life stories that typically address the real life. The novel's storylines indirectly bring the reader to explore the human condition and the surrounding environment (Peck & Coyle, 1984).

Several novels on the theme of nature have succeeded in both documenting the era and serving as a platform for criticizing human disregard to the environment. Among the novels that examine the death of nature is Indra Sinha's *Animal's People* (2007). This novel discusses about the bhopal gas explosion in India that killed thousands of people and caused more than half a million injured. The catastrophe of the Bhopal gas leak arose because of human carelessness in carrying out maintenance following pesticide production activities (Sinha, 2007). This novel explores the clash of human suffering that occurs in the

aftermath of the catastrophe. Moreover, the environmental issue is also addressed in Emmi Itaranta's *Memory of Water* (2014) which discusses global climate collapse where natural resources are depleted because of human activity until fundamental necessities such as clean water are in short supply (Itäranta, 2014). The third novel is *Into The Forest* (1998) by Jean Hegland, addresses the problem of the ecological disaster caused by human activities that seek to satisfy their demands by attacking one another and destroying natural resources. As a result, it causes hunger, disease, barren land, hostility, and even death (Hegland, 1998). The nature themes addressed in those novels above show that humans, nature, and literary works cannot be separated.

Ecocriticism is a literary theory that studies the relationship between humans and the environment in literary works (Mambrol, 2016). Just as literature requires the environment as its object of discussion, the environment also requires literature to be heard and understood by humans. In other words, this theory tries to find the relationship between humans and the environment from an ecological perspective in literary works. According to Cheryll Glotfelty (1996), ecocriticism approaches literary studies from an earth centred perspective. Glotfelty also state that “ecological criticism shares the fundamental premise that human culture is connected to the physical world, affecting it and affected by it” (p. 19).

Such criticism focuses on writings about the natural world, the ecocriticism asserts that the natural environment is a central subject matter for humanistic concern. The word 'ecocriticism' itself was first used in 1978 by the critic William Rueckert in his essay *Literature and Ecology: An Experiment in*

Ecocriticism. In this essay, ecocriticism is defined as the study of literature and the environment from an interdisciplinary point of view. In other words, ecocriticism is a science to analyse the environment to produce environmental solutions for any situations in a holistic manner (Widiya, 2019). Furthermore, in this eco-critical research, the researcher will focus on discussing nature represented in the novel, the relationship between humans and their environment, and the efforts made by humans to solve the problem of environmental damage in the novel.

William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind* is a novel that discusses the relationship between humans and the natural environment. This novel was written in 2015. Illustrated by Anna Hymas and published by Puffin Books-An imprint of penguin random house LLC, New York. This novel centers on the theme of natural damage, social conditions, humanity, and creativity in overcoming life's difficulties. The moral message conveyed is very valuable and become an inspiration to many people, especially young people. Reporting from www.netflix.com, the film based on this novel has an 86% satisfaction rating based on 63 reviews, with an overall rating of 7,26/10. (The Boy who Harnessed the Wind, 2019) Meanwhile, the reader information and book recommendations on the 'goodreads' website show that 95% of readers are motivated to love nature more and care about the environment. Therefore, this book received a rating of 4.31/5. (The Boy who Harnessed the Wind, 2019).

This novel is based on the true story of William Kamkwamba, who lives in Wimbe, Malawi, Africa. This story happened around 2002-2006. William, the

main character has also become a writer of the novel's storyline. Because of agricultural failure, his living conditions were described as very poor, without income. The lost crops left his family with little to eat or sell. As a result, this situation has an impact on the emergence of hunger, weather imbalances, and natural damage. This story also deals with several environmental problems, such as drought, erratic weather, famine, and a lack of knowledge about technology and science.

The geographical circumstances and weather in the Malawi area are the primary causes of natural destruction. Humans, however, unknowingly contribute significantly to the deterioration of conditions. Malawi is a small city in the Southeast of the African continent that is almost undetectable on the map. Malawi has a subtropical climate with extremely high temperatures and minimal rain due to its desert-dominated terrain. William and his family live in a village called Wimbe, where the majority of the population are farmers.

Malawian farmers always encounter problems due to the unpredictability of weather circumstances. Malawi may be exceedingly hot during the changing seasons, but it can also have unexpected severe rains, causing crop loss and floods in the fields. Everyone is haunted by the fear of going hungry. Not only that, but the threat of government land grabs has become a source of anxiety for the majority of people. Because many farmers must sell their land to the government to survive. Even though they know that the exploitation of land by the authorities will have a bad impact on the environment. Malawian authorities are not hesitant

to exploit the forest for their advantage, despite the environmental devastation and economic crisis that has occurred.

According to the United Nations Development Programme (UNDP) report, 4.7 million of Malawians, or a third of the population, were affected and needed food help in 2005. In fact, the Malawians were already beginning to die because of starvation by that time (Menon, 2007). A report by the World Food Program (WFP) shows that more than two million Malawians were at the peak of "starvation" due to natural disasters and internal conflict in 2006 (Phiri, 2006). This fact is also supported by the President of Malawi, Bakili Muluzi's statement in 2002, which stated that five out of eleven million people were threatened with starvation. He also states that this condition occurred after a long dry season which resulted in the failure of the corn harvest (Gráda, 2015). Based on the Public Accounts Committee's critical report on corruption and fraud within government (2000), the International Monetary Fund (IMF) stated that Malawians government was the main cause of the famine. It was based on the belief that corruption and fraud were rampant in the Malawian government (Raj Patel & Alexa Delwiche, 2002).

The death of nature also has an impact on Malawian life. Many adolescents are forced to drop out of school due to financial constraints. William did all in his ability to continue learning, including secretly studying and reading books at the shadow library. Then he discovers a book called *Using Energy* which changes his life. This book informed William of anything about windmills, which

may be used to power water pumping machinery for his village's irrigation system.

However, these innovations are difficult to realize. Malawi has devolved into a city filled with famine, robbery, crime, and even disease and death. During a deteriorating situation, William and his innovations were unable to persuade the surroundings. To survive, people must sell whatever is in their house including mattresses and other old stuff. Nevertheless, amid hopelessness, William keeps trying to convince people around him about new hope for Wimbe's life. Then, after persuading the surrounding community to try this last option, he was able to save many people's lives by constructing a windmill out of junkyard bits found in the landfill (Perry, 2010).

There are two reasons why the researcher chose this novel. First, William as the main character succeeded in motivating the reader that humans can improve their situation with their efforts, innovations, and knowledge. In addition, this novel makes readers aware that there are still many unlucky families trying to survive in a damaged environment. Second, this novel has successfully inspired many people to pay more attention to nature. There are still many people who do not realize that nature is not doing well right now. It needs more attention and is too tired to obey all human wishes. These moral values are what many people should know.

Furthermore, most of the novels have already discussed how humans treat their environment, including human intervention in destroying nature. However, *The Boy Who Harnessed The Wind* managed to give a different point of view.

This novel also shows the struggle of a character in overcoming natural destruction in his environment. Exploring ecological criticism in this novel is very interesting. It can help us realize that enhancing the environment can begin even with small steps. This research is also intended to help us know the actual condition of nature. Therefore, this novel is very fascinating to examine.

B. Research Problem

Based on the background stated before, the problem of this study raises the following questions:

1. How is Malawi's environmental condition illustrated in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*?
2. How is the human-nature relationship according to the main character illustrated in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*?
3. What is the role of William in solving the problem of Malawi's environmental damage in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*?

C. Objectives of The Research

Based on the statement of the problems stated before, the objectives of this study are formulated as follow:

1. Describing the Malawi's environmental condition is represented in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed the Wind*.

2. Describing the human-nature relationship according to the main character that illustrated in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*.
3. Describing the role of William in solving the problem of Malawi's environmental damage in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*.

D. Scope and Limitation

Due to practical and technical limitations in answering the question, the researcher will limit the scope of this research to only analyze an ecological condition, the human-nature relationship, and the role of the main character in solving the environmental problem in *The Boy Who Harnessed The Wind* (2015). It means, that this research will only focus on Malawi's environmental conditions, the human-nature relationship according to William, and William's role in solving the problem of Malawi's environmental damage from the ecocriticism perspective.

E. Significant Research

This study is conducted in the hope of contributing to science in the context of English literature which may help students understand and practice the philosophy of life in a literary work. It is hoped that the natural damage in this novel would be able to show the world about the importance of caring for the environment especially understanding the essence and complexities of human life even the challenges beside it. By understanding the conflicts, readers may reflect and

comprehend themselves in such a manner that they are supposed to be able to take on moral values and solve life's problems as well as possible.

Furthermore, researcher also expect that the results of this research can be useful for students majoring in literature, researchers, academics, institutions, universities, and those who want to concentrate and explore more about the ecocriticism theme in a literary work.

F. Previous Study

Many researchers have analyzed this environmental topic. The first previous study is *An Ecocritical Analysis of Nature and Culture in The Maze Runner Trilogy Novel by James Dashner* written by Ardha Prima Tahier (Tahier, 2017). The topic of this research is nature and ecology. This research uses the ecocriticism approach by Greg Garrard which emphasizes the representation of nature, nature exploration, nature and culture interconnection, technology, and political impact on nature. (p. 23) The results of this study indicate that 1) Nature is represented through a metaphorical object like home; 2) There is a lack of human attitude towards nature; 3) There is an examination of inappropriate encounter between a desert and a city; 4) There is a totalitarian government induces disrespect attitude towards nature by misusing advanced technology.

The second previous study was *The Beginning of The End: An Ecocriticism Analysis on Clive Staples Lewis' the Chrinicles of Narnia: The Last Battle* by Widodo Sungkono (Sungkono, 2015). This research also addressed the theme of environment. This ecocritical research focused on human behavior towards nature, animals, natural disasters, and ideological position of the author. The results of

this study found there is a deforestation in Narnia Forest, exploitation toward animals, and the apocalypse with the representation of exploitation and natural disasters (p. 39).

The third study was *An Ecocritical Analysis of Wide Sargasso Sea* by Laura Limeres Otero (Otero, 2019). This study used an ecocriticism point of view. It focuses on how the eco-cultures different among the characters, Antoniette and her husband. Not only between man and woman, but also between the colony and metropolis. The results of this study indicate that nature can be held power that influenced the outcome and had two different rendering by two characters. The male appeared to be detached from nature with his masculinity. Meanwhile, women experience animalization due to being positioned as a subgroup (p. 41). The connection among gender and nature in this novel also clearly reflected.

The fourth research was *An Ecocritical Analysis of Young Adult Dystopian Novel in Veronica Rossi's Under The Never Sky* conducted by I'atul Azizah, Enggar Novi Darumi, Gustin Listyanti Putri Emas, Yunia Siti Ma'rufah, Lidya Ayu Purnamasari, Sufi Ikrima Sa'adah. This study uses the principle of ecocriticism which aims to represent nature and the interactions of the main characters with the natural surroundings (Azizah, et al., 2017). This research resulted in several points: 1) Pastoralism is represented by city and state distinctions; 2) Place and time arrangements are the result of natural disasters and technological developments; 3) Humans can only live side by side with nature because they need to learning, making experience, and creating a relationship with nature.

The fifth research was conducted by Amiril Bachtiar's *An Ecocritical Analysis of Nature Condition And Environmental Stewardship In JRR Tolkien's The Hobbit* (Bchtiar, 2019) which focuses on natural representations and recommends efforts to protect ecosystems as depicted by Hobbit characters in the novel. This research generates numerous ethics and how they might be applied to the environment in the future, implying that humanity must return to nature.

The sixth, Tatik Apriati is a student of the state university of Yogyakarta who wrote a thesis with the title *An Analysis of Human-Nature Relationship in Children's Book Julie by Jean Craighead George (An Ecocritical Study)* (Apriati, 2013). This research focuses on identifying the human-nature relationship in the novel. The result of this study revealed that human-nature relations, whether good or bad, were influenced by indicators such as awareness to love nature and money-oriented principles.

The following study is *Ecological Crisis in Into the Forest by Jean Hegland* (Budi N. K., 2018). It was conduct by Nirmala Khairunnisa Budi and Dr. Ali Mustofa, S.S, M.Pd. This research examines the phenomena of ecological crises in novels, such as how human-induced environmental devastation is shown and impacted. According to the study result, the ecological disaster is caused by humans and their desires to fulfill their personal needs. Such as war and attack, which will have an impact on the death of nature.

The last previous study was *An Ecocritical Study of J.G. Ballard's Climate Fiction Novels* by Cenk Tan (Tan, 2019) . It focuses on an ecocriticism analysis through ecocritical perspectives, social and ecological in specific have been

utilized to shed light on the selected three novels of J.G. Ballard's *The Wind from Nowhere*, *The Drowned World*, and *The Drought*. The purpose of this study is to criticize Oeuvre Ballard from a certain socio-ecological position. The results of this study reveal the existence of social ecological motives regarding an almost depleted world of water and a damaged world climate (p.120).

Based on the previous studies above, the majority of the studies had almost the same motives and goals, i.e., raising the theme of caring for nature and the principles of ecology that describe the relationship between humans and nature. Due to human efforts to enhance nature have not been widely discussed, this research will add a new point about how motivation and the effort by the humans to save the environmental conditions. Therefore, researchers will collaborate the points of natural concern, ecological human-nature relationships, and solutions to repair the death of nature.

G. Definition of Key Terms

To avoid the ambiguity of the terms in this study, the researcher defines the main terms as follows:

1. **The Death of Nature** is another word for an environmental crisis which means that "nature" as a living being was killed when capitalism and the scientific revolution began to imagine that nature as passive dependents in need of control. It can be seen through global warming, atmospheric damage, weather climate, the rise of man-made and artificial as a substitute for natural elements (Garrard, 2014).

2. **Ecocriticism** is a general term of literary analysis informed by an ecological or environmental mindfulness (Garrard, 2004)
3. **Environmental conditions** Natural conditions are environmental circumstances that alter with time, like a wild and resourceful beast given to fits of rage when it is provoked beyond endurance (Garrard, 2014).

CHAPTER II

REVIEW ON RELATED LITERATURE

This chapter discusses about some related literature used to analyze *The Boy Who Harnessed the Wind*. It consists of the ecocriticism theoretical framework, Greg Garrard's ecocriticism concept, a respond to human- nature relationship, and respond to the death of nature.

A. Theoretical Framework

1. The Definition of Ecocriticism

According to Greg Garrard (2004), ecocriticism is a general term of literary analysis informed by an ecological or environmental mindfulness (p. 37). This theory studies the relationship between literature and nature through some approaches which do not only have attention for the environment combining between literary method and ecological perspectives, ecocriticism applies a work in which has interaction between the author, character, and place (p. 63).

Glotfelty (1996) define that ecocriticism is the study of the relationship between literature and the physical environment. It takes an earth-centred approach to literary studies (p. 19). It also means that ecocriticism is closely related to environmentally oriented developments in philosophy and political theory. Indeed, the widest definition of ecocriticism is the study of the relationship between the human and the non-human, throughout human cultural history and entailing critical analysis of the term 'human' itself. Ecocriticism concerned with how literature represents the environment and

how this might contribute to understanding the environmental crises of the contemporary world (Glotfelty & Fromm, 1996).

The term of ecocriticism divided into “eco” and “critic”. Both derive from *Greek*, *oikos* and *kritos*. *Oikos* means nature, a place, and also called “our widest home” by Edward Hoagland. Meanwhile *kritos*, means judges or an arbiter of taste who wants the house kept in good order, no boots or dishes strewn about to ruin the original décor (Howarth, 1996). This theory generally approaches on the relationship between humans and the earth as represented as literature. For further definitions, Howarth (1996) also stated that “Ecocriticism is unique amongst contemporary literary and cultural theories because of its close relationship with the science of ecology. Since ecology studies the relations between species and habitats, ecocriticism must see its complicity in what it attacks” (p. 69).

According to Sara Upstone (2017), recent ecocriticism has moved beyond the concern for the environment to questions about the human as a part of the ecosystem. In particular, ecocriticism asks questions about anthropocentrism which focus on the way in which human thinking is centred on the human subject and how this shapes our perspective on the world and our treatment of it (p. 285).

2. History of Ecocriticism Theory

According to Sara Upstone (2017), ecocritical studies first appeared in the United States in the late 1970s and then spread to Europe. It was controlled by literary scholars from the beginning. Most notably, the critic

Lawrence Buell (1939) was influential in shaping the early definition of the discipline as one in which literature and the environment would be studied in relation to each other (Upstone, 2017). Buell's work demonstrates his clear devotion to environmental concerns. For this reason, this discipline is often known as environmental studies, or green studies. Moreover, ecocriticism is often used as a catchall term for any aspect of the humanities (e.g., media, film, philosophy, and history) addressing ecological issues, but it primarily functions as a literary and cultural theory (Buell, 2019).

The word 'ecocriticism' itself was first used in 1978 by the critic William Rueckert in his essay *Literature and Ecology: An Experiment in Ecocriticism* (1996). By the early 1990s, ecocriticism had become widely used as literary and cultural theory with the formation of the Association for the Study of Literature and Environment (ASLE) at the Western Literary Association (1992), followed by the launch of the flagship journal *ISLE: Interdisciplinary Studies in Literature and Environment* in 1993, and then later the publication of *The Ecocriticism Reader* (1996) by Glotfelty and Fromm, Greg Garrard's *Ecocriticism* (2004) and *The Cambridge Introduction to Literature and the Environment* (2010) (Gladwin, 2017).

Ecocriticism has been divided into "waves" in order to provide a clear historical movement trajectory (Buell, 2005). The first wave tended to take a dehistoricized approach to nature, frequently overlooking a deeper political and theoretical dimensions and tending toward a wilderness and nature writing celebratory approach. Then, ecocriticism expanded into a second

wave, giving new approaches to literary analysis through theorizing and deconstructing human-centered scholarship in ecostudies, imperialism and ecological degradation, animal and plant subjectivity, gender and race as ecological concepts, and scale issues. The third wave calls for a global understanding of ecocritical practice through issues like global warming. It combines elements beyond the first and second waves. Furthermore, there are currently hundreds of environmental literatures written about ecocriticism.

According to Liam Kiehne (2018), the environmental literature is related to the 21st century and Anthropocene. He conveys that environmental literature serves as a platform for encouraging new and more responsible ways of thinking about humanity's relationship with the natural world rather than merely with itself (Kiehne, 2018). In other words, environmental literature is the production of intelligent comments. It applies to the relationships between man, society, and the environment. Most nature writing and some science writing falls within the scope of environmental literature. Often, environmental literature is understood to espouse care and concern for the environment, thus advocating a more mindful and environmentally aware interaction between man and nature (Environmental Literature, n.d.).

3. Ecocriticism as a Literary Criticism

Obviously, nature has always been a source of inspiration for different writers all over the world. They write the poetry about moon, ocean, and so on. Some writers also taught about local pride and the changing landscape. Besides that, the Academia Education's advocate, Ms. Sarah Lim said that

environmental literature also becomes a warning and cautions for human. Many works of literature discuss humans' harmful influence on the physical world as incompatibility with our nature. Since literary work occasionally speculates on how the future will appear, more specifically, how the future of nature will seem (Lim, 2020). Through this environmental literature human is expected to be aware and able to regulate his actions against nature. As a result, the worth of inspiration, warning, and caution in literature may be identified using ecocriticism theory.

Ecocriticism illustrates the scope of the literary approach, and this is one of its strengths. Lawrence Buell (2005) argues that ecocriticism takes its energy not from paradigm research methodology, but from a commitment to rehabilitating what has been marginalized effectively by society (p. 91). Based on the explanation above, the diversity of ecocritical practice emphasizes that such criticism should not focus on trees and rivers that appear in the text, but also on the nature inherent in humans and in environments where humans play a prominent role.

B. Greg Garrard's Ecocriticism Concept

According to Greg Garrard's definition, ecocriticism is a discussion of the environmental issue. It encompassed the origins of the death of nature, the impact on other organisms, and the human effort or intervention to resolve this problem. Greg Garrard in his *'Ecocriticism'* (2004) divided this theoretical concept into pollution, position, pastoral, wilderness, apocalypse, dwelling, animals and the earth.

1. Pollution

Pollution is derived from the Greek word "*polluere*" which means "to pollute." This word has emerged as one of the most important aspects of environmental disaster. Pollution or contamination has been for a long time, but it only became noticeable until the mechanical growth of the nineteenth century. Pollution occurs when the native environment is unable to eliminate a component without causing mischief or injury to itself. The components used are not naturally created, and the annihilation procedure might take anywhere from a few days to several years. As a result, pollution occurs when nature has no idea how to break down a component that has been brought to it unnaturally (Garrard, 2004).

Garrard (2004) defines pollution as an ecological problem because it conveys a normative assertion about something in excess being in the wrong place. He continues to state that pollution does not refer to a specific chemical or set of substances. He emphasizes that environmental issues necessitate cultural as well as scientific examination. It indicates that studying the environmental problem on cultural and scientific grounds is necessary since environmental problems may be regarded as the result of the interplay between science and culture inflection. Then he proposes a study of 'rhetoric', which provides the reading practice of culture linked to moral and political problems.

Pollution must be addressed since it has a detrimental impact on characteristics that are an absolute prerequisite for life to exist on earth, such as water and air. In actuality, creatures, people, and plants could not survive

without it, even if it was accessible in varying quantities. There are two types of pollution: air pollution and water pollution. Air pollution occurs when toxic gases are emitted into the atmosphere because of mechanical or other monetary activities, hence polluting the earth's air. Water pollution is the contamination of bodies of water caused by human activities. Lakes, canals, oceans, springs, and groundwater are all examples of water bodies (Pallavi Saxena & Anju Srivastava, 2020).

2. Position

In this concept of positions, Greg Garrard (2004) grouped them into cornucopia, environmentalism, deep ecology, ecofeminism, social ecology and eco-Marxism, and Heideggerian eco-philosophy (p. 16).

a. Cornucopia

Cornucopia is concerned with the economic conditions that arise from the availability of natural resources. Human welfare has recently been in line with population growth, economic expansion, and technological progress. According to Garrard (2004), if any resources are increasingly difficult to obtain and the price increases, it is time for capitalist entrepreneurs to take advantage of them by providing alternative substitutes. The discovery of alternative materials automatically decreases the price of the original material. The fact that resources are dynamic concepts creates innovations as new resource concepts from time to time. The more people develop, the more brilliant ideas will emerge. It will automatically increase human consumption. Garrard also said that in every

century, new resources would be discovered. If natural resources are scarce, it is an economic problem, not an ecological one (p.17).

b. Environmentalism

Garrard (2004) defines environmentalism as "any movement that seeks to rescue the environment by encouraging a green lifestyle, such as recycling bottles and purchasing organic food." These members of the movement are referred as environmentalists. They aim to prevent pollution or contamination of such specific region, primarily in poor nations by pushing, for example, the family-planning campaign (p. 18).

For further definition, environmentalism is a political and ethical movement that seeks to improve and protect the quality of the natural environment through changes in human activities that damage the environment. These actions relate to political, economic, and social organizational movements that are expected to encourage humans to take better care of their environment. Environmentalism claims that all living things other than humans, and the natural environment as a whole, are worthy of consideration in the realm of morality in political, economic, and social policies (Elliott, 2020).

c. Deep Ecology

The Norwegian philosopher Arne Naess (1995) coined a first concept of deep ecology in his work *The Shallow and the Deep, Long-Range Ecology Movement*. He states that deep ecology is often seen as a kind or subset of ecocriticism (p. 8). Deep ecology, as a literary theory, bears comparable foundations to ecocriticism but is distinct enough to be

considered a separate theory. It originated as a philosophy of life but has since been adopted by ecocriticism as a method of interpreting works as well (p. 10). Furthermore, deep ecology holds that all life exists as an interconnected web, with each living thing occupying a node, indicating that people and the natural world are intricately intertwined and cannot be separated (Capra, 1995). Further, Naess (1989) also claims that not only are we from nature, but we are nature, we are the extensions of the natural community (p. 165).

However, Garrard (2004) states that deep ecology sees nature as a victim of increasing human population, both in developing and developed countries. Environmental issues, such as deforestation, are associated with poverty and land pressures in developing countries. In developed societies, there is a dilemma of a rich class with a high economic expansion that starts to produce domestic waste and greenhouse gas emissions. Deep ecology demands the realization of values inherent in nature, resulting in a transition from a human-centred system to a nature centred core (p. 21).

d. Ecofeminism

Ecofeminism is a term coined by Francoise D'eaubonne in 1974. Ecofeminism is so much more than just a term. It is a framework that seeks to combine, re-examine and augment the environmental and feminist movement (Cuomo, 2002). Ecofeminism has grown and involved in the last 45 years since its first was coined. However, at its core, ecofeminism seeks to reveal the connection between the oppression of women and the

destruction of the environment (Gaard, 2011). In essence, a primary claim within ecofeminism is that women's liberation is intertwined with the liberation of the environment from human destruction. In U.S culture, humans and nature are another oppositional dualism (Buckingham, 2004). In more cases, cultural attitudes place more value on one side of the binary than the other. Often, these value dualities express themselves in language. For example, nature is characterized as feminine in the phrases Mother earth or fertile ground, both be plundered, extracted, and sown (Taylor D. , 1997).

Moreover, ecofeminism frequently refers to the logic dominance that women have been connected with nature, the material, the emotive, and the specific, while men have been associated with culture, the nonmaterial, the logical, and the abstract (Garrard, 2004). Ultimately, ecofeminism is a way through which to interpret and connect the subjugation of the environment and women. It can be a useful lens to understand how misogyny and the destruction of the natural world are connected (Kirk, 1997).

e. Social Ecology and Eco-Marxism

According to social ecology and eco-Marxism theory, the origins of environmental issues are more than just anthropocentric ideas. They are also a system of human dominance or exploitation by other people (Garrard, 2004). In Murray Bookchin's theory, social ecology is the theory that takes a look at our place in nature from an evolutionary perspective

and seeks to analyse problems that have arisen ecologically as a result of human intervention in the natural world (Bookchin, 2022). He also said that the domination of nature by humans stems ultimately from the humans by human domination. All of our social and extension ills stem from domination and hierarchy.

Furthermore, the main political concern identified by eco-Marxists is class struggle, although social ecology opposes power relations that are considered to be hurting all types of society. Moreover, eco-Marxists identify class conflict as the key political issue, social ecologists oppose the power relations and hierarchy they see as afflicting all kinds of societies, be they capitalistic or centrally planned socialist. In place of a workers' revolution, social ecologists promote exemplary lifestyles and communities that prefigure a more general social transformation and give people practice in sustainable living and participatory democracy. According to Garrard (2004) eco-Marxism seems at present to be a marginal force in the green politics of rich nations. Although its role in third world environmental justice movements may be more significant (p. 30).

f. Heideggerian Eco-philosophy

According to Garrard (2004), Heidegger distinguishes between material existence and the revelation of being, or the thingness of things. He also states, "At the end of the day, the ordinary is not ordinary." It is

extraordinary (p. 31). This indicates that humans are meant to not only exist but also to show up or be exposed.

3. Pastoral

According to Garrard (2004), pastoral is the concept of nature as a stable, enduring counterpoint to human societies' disruptive energy and change (p. 56). Pastoral refers to the depiction of nature in the physical world, sometimes it also discusses methods to care for and protect the environment (p. 37). However, in evolutionary terms, pastoral space cannot be viewed as distinct from regular human situations. Instead, it must embrace the entire planet, with homo sapiens simply one of many interconnected and interdependent kinds of living creatures. Pastoral is an excellent example of a human-nature relationship portrayal of the physical world. Pastoral is never under significant danger and has a low biological diversity. The pastoral concentrates on the vastness and beauty of the landscape, particularly on the sublime landscapes, which are primarily mountains (p. 43).

Greg Garrard (2004) distinguishes three types of pastorals. First, there is a Classic Pastoral, which is "characterized by nostalgia" and a love of nature as a place for human leisure and introspection. It implies that anytime people look back through history, they will see an escalator that will take them to a better past. (p. 37) Second, the Romantic Pastoral, an era following the Industrial Revolution that considered "country independence" desirable in opposition to urban expansion. Wordsworth and Clare's writings are fundamental to the Romantic pastoral. Wordsworth's poetry elucidates the

significance of the interaction between non-human nature and the human consciousness. (p. 39) Third, American Pastoralism, which "emphasized agrarianism" and depicts land as a resource to be utilized, with farmland frequently forming a barrier between the urban and the wilderness. American pastoralists see Henry David Thoreau's work as a pivotal figure. They have responded to feminist and multicultural criticisms. The goal of American ecocriticism was to revalue nonfictional nature literature. As a result, American nature writing emphasizes the functional rather than the artistic relationship with the planet (p. 48).

Furthermore, Garrard also explains pastoral ecology. He defines that it is associated with the "balancing of nature." It was initially discussed in Judaeo-Christian and Graeco-Roman traditions, which envisioned a divinely created order of nature. The Scientific Revolution, like the seventeenth and eighteenth centuries, embraced the pastoral image of nature but refracted it to the perspective of the Universe as a grand machine crafted by God. Therefore, these new perspectives developed the concept of nature as a harmonic and stable machine, which remained at the centre of the new science of ecology as nature's balance (p. 56-57).

Based on the explanation above, pastoral maintains that humans are not the owners of the world, but should treat it with care and as stewards, both for themselves and for other animals (p. 51).

4. Wilderness

Garrard (2004), defines that wilderness is an environmentalist approach to ecocriticism concerned with nature while still living in a comfortable existence. The term wilderness refers to nature in its natural condition, uncontaminated by civilization, and it is a powerful natural building. It is organized to conserve certain habitats and animals. Since it is untouched by humans, anyone who wants to escape the immorality and materialism of the city can go there. Wilderness is crucial for ecocriticism because it offers the true relationship between humans and nature (p. 66). Furthermore, Garrard (2004) defines wilderness as a state that has not been corrupted by civilization. He claims that it is the most powerful natural structure to New World ecology (p. 59).

5. Apocalyps

Garrard (2004), characterizes the apocalypse through the lenses of religion, prophecy, and other theorists. Despite this, the acceptance of the apocalypse is the most important key of this chapter. He says that when people start believing that the world is about to end, they would be far from hopeful (p. 107). As a result, he asserts, "only if we feel the world has a future, after all, are we prepared to bear responsibility for it." What he means is that the idea of the end of the world exists in people's imaginations. If they feel the world is going to end soon, they have nothing to do with the planet. In contrast, if people persuade themselves that the globe will continue, they will grasp how to live and will be accountable for the planet's preservation (p. 85).

6. Dwelling

A dwelling is an individual's primary anchor in the environment. It may serve many functions, such as shelter, privacy, security, control, and status. From an ecological point of view, the meaning of dwellings lies in these functional relationships between human beings and their dwellings. Simply said, it is an exemplary way of handling the place you live (Coolen, 2006). However, to do that, humans need to respect the place they live. They need to love it.

Garrard (2004) divides dwelling into two types: georgic and primitive. Georgic examines the relationship between land and farming or production. It is concerned with labour, productivity, and the use of land to sustain human life. The word "primitive dwelling" refers to the pleasant way of life or home of American Indians, often known as "Ecological Indians." American Indians are known as primitive people who successfully coexist with nature (p. 108).

7. Animals

The animal is a significant critic in the study of ecocriticism. It is a conventional thinking about the relationship between humans and animals (Vint, 2010). Animals have an important role in human existence because they supply essential services such as food. According to Foer (2009) humans have the privilege to choose any food on this earth does not mean that he deserves to treat every creature, especially animals as a meal or without realizing that they deserve to be treated more than the offering of food.

Garrard's book investigates how animals become victims of humans in every way. He separates the study of animal-human interactions in the

humanities between philosophical considerations of animal rights and cultural examination of animal representation (p. 136). Therefore, animals are considered to have rights and authority in their lives. Jaques Derrida (2008) defines that animal is a word. It is an appellation that men have instituted, a name they have given themselves the right and the authority to give to the living other (p. 23).

8. Earth

Earth is the only planet known to maintain life. A product of scientific phenomena and sheer chance. The blue speck in space holds the past, present, and future of our existence. Garrard (2004) defines the concept of the world as the entirety of the earth's parts and concerns, such as climate change, the death of nature, global warming, the ozone layer, and other environmental issues from multiple perspectives (p. 162). He first defines globalization as the result of population growth. He adds that human overpopulation may rise to the ideology of capitalism, which leads to the destruction of the earth. Later, Garrard (2004) proceeds to describe the destiny of the world through religious spectacle, in which he refers to the unpredictable and unstable earth using the concepts of the Greek Goddess, Gaia (p. 172). In addition, he uses Christianity to provide facts about the earth's history since its creation by God. In his conclusion, he seeks to discuss future eco-critical issues that must be seriously addressed by increasing the research of world culture and political developments (Apriati, 2013).

C. Respond to Human- Nature Relationship

The human-nature relationship is the adaptive synergy between humans and nature as well as longstanding actions and experiences that connect humans to nature. As such, the human-nature relationship goes beyond the extent to which an individual believes or feels they are part of nature (Seymour, 2016). Through human history lots of cultures have viewed their relationship to the earth in other ways. Like Animism which belief that in spirit infuses object, nature, and whole of existence is a fundamental principle of many indigenous societies. Taoism, which belief that cosmic energy or life force is everywhere and is constantly seeking harmony and balance between all things. Then Ancient Andean civilizations placed the spirit of Pachamama or Mother Earth at the very center of their worldviews. Uwa Tribe in Colombia said that the earth is not just the dust from which human being are made, it is spirit of their people and ancestors. It's their history, its life itself (Dimou, 2020).

According to Mirjan de Groot, et all (2011), human-nature relationships may also be called as a 'partnership of nature' and 'participation in nature'. They also distinguish form of human-nature relationship that is allied to traditional stewardship but has a more ecocentric content, labeled here as 'guardianship of nature'. Humans benefit from the environment, but they are also a part of it because they are organic creatures, made of the same molecules like everything else on this planet one interconnected ecosystem that keeps humans all alive. However, humans often feel separate from the earth. They feel superior, different, or even feel the most special among other creatures. Standing apart from them, humans investigated nature's ultimate questions, dissecting it into smaller and

smaller pieces. This action brought great power for humans. There are three epochs that depict the evolution of human-nature relations: the anthropocentrism, biocentrism, and ecocentrism.

The Anthropocentrism Age is an epoch defined by humans as a dominant species. Much of the human race has come to see itself as the rulers and center of all life. Humans are still trying to bend the planet's environment, processes, and biodiversity to their will. The vast sprawling cities have pushed nature out of sight and their mind. In that age, the world is attempting to meet the urgent challenge of climate change. The next Age is Biocentrism which fosters increased awareness of the relationship between humans and nature. This age ascribes value to human and non-human life. It means that the rights and needs of humans are not more important than those of other living things.

Then the last age is ecocentrism, which is expected to be a perfect epoch that views the earth and ecosystems as the most important values to balance the lives of all creatures. It focuses on the well-being of entire ecosystems including all the living and nonliving elements. It recognizes the ecosphere, rather than the biosphere as a central in importance, and attempts to redress the imbalance created by anthropocentrism (Is it Time to Reassess our Relationship with Nature, 2020).

D. The Death of Nature: About Environmental Damage

Environmental damages are a danger overwhelming and particularly vulnerable community result, often resulting in mortality and morbidity. The death of nature has posed threats and challenges to the survival and welfare of mankind. Meanwhile, the frequent devastation of nature also functions as a

civilization (Guo, 2021). According to *The International Encyclopedia of Public Health* book (2017), environmental damage is an event caused by a natural hazard. It is a natural process or phenomenon that may cause loss of life, injury or other health impacts, property damage, loss of livelihoods and services, social and economic disruption, or environmental damage. For instance, an earthquake, flood, storm, or drought (Monica Adhiambo Onyango & Malyse Uwase, 2017).

Since the birth of agriculture, humans have been manipulating the world around them, harnessing, dividing, and selling its natural resources. Furthermore, in the colonization era, the earth became a place to be conquered, dominated, farmed, fished, plundered, and mined on a massive scale (Dimou, 2020). Over the last decade, almost 300 natural disasters have occurred each year throughout the world, affecting millions of victims and costing billions of dollars. This natural disaster automatically affects human life. For example, humans have difficulty accessing clean water, inadequate sanitation, deteriorating food or nutrition sources, loss of housing, the threat of infectious diseases, and an increase in homelessness. These problems potentially harm both humans and the environment itself. Therefore, the disaster cycle emerged as a response to those natural disasters. It is a framework used to base a coordinated plan to respond, recover, prevent, and prepare for a disaster (Abhaya S Prasad & Louis Hugo Francescutti, 2017).

E. Respond to Environmental Sensitivity and Love Nature

Environmental sensitivity is the ability of an individual to perceive and process information about their environment (Pluess, 2015). It is a crucial

fundamental trait found in many organisms. It enables an individual to adapt to different environmental conditions. In another word, environmental sensitivity means the emergence of awareness to love nature more deeply. Loving nature is a desire, passion, intimacy, and commitment to protecting nature for the sake of survival. This feeling can arise due to the close relationship between humans and nature. This relationship will indirectly encourage positive actions in treating nature (Dong, et al., 2020).

Among the actions that reflect the love of nature is the 6R movement (reduce, reuse, recycle, repair, refuse, rethink). Reduce stands for the reduction in consumption. For example, less buying, saving power, saving water, and reducing the amount of garbage. Reuse refers to using the discards or product parts more than once, including second-hand consumption. Then, Recycling stands for recovering material by investing energy and material into the discarded goods. It is like turning waste before useless into raw materials or new products. Repair stands for fixing the product or system when it breakdown and does not work properly. Refuse means not using an ingredient or buying a product if you don't need it or if it is harmful to people or the environment. Rethink is the principle of considering every action that has an impact on people and the environment, such as being selective in choosing products that have the least environmental effect (Ravindra Singh & Puneet Tandon, 2016).

The loving nature principles above are successfully reflected through the main character in the novel *The Boy Who Harnessed the Wind*. William is described as a character with a high sensitivity to nature. His concern for the environment

makes him a savior hero for the environment. His innovation in creating a windmill from a junkyard is reflecting the 6R principle that has been promoted by environmentalists in this era. Therefore, analyzing this theme is very interesting.

This research will use three phases of ecocritical ideas to assess the ecological circumstances in *The Boy Who Harnessed the Wind*. First, study how nature is represented in the text, specifically how the landscape or setting and other non-human and non-living objects are in good condition or damaged by humans. Second, examine the interaction between humans and the environment. Third, consider the main character's involvement in attempting to restore environmental harm.

CHAPTER III

RESEARCH METHOD

Based on the themes studied, this chapter describes the methods used to research these problems. Some points that will be explained include research design, data source, data collection, and data analysis and interpretation. Therefore, the researcher will explain in detail these aspects as follows:

A. Research Design

This study is categorized into literary criticism since it analyzes, studies, interprets and evaluates literary works (Stevens, 2015). The data obtained were in a qualitative method. The qualitative method is research in the realm of social science. Fundamentally depends on observing humans, in the context of their territories and linguistics (Meliono Budianto, 2002). This method is applied to understand the phenomenon of what is experienced by the research subject, based on the view of the subject under study or with an emic perspective, which is limited in the specific context. The most suitable approach is to use an objective approach with Greg Garrard's ecocriticism theory (2004). This theory serves to reveal the relationship between environment and literature. Including how to reveal natural phenomena in a literary work, revealing the causes of natural damage, human-nature relations, moral messages and solutions to solve these problems. Therefore, the ecocriticism theory is used to answer research formulations.

B. Data Sources

In research, data is the most important thing that must be considered to produce a final conclusion. It is a source of information that will be selected for analysis (Siswantoro, 2010). In this research, the data are in the forms of sentences. Specifically, are character's statement dialogues and descriptions given by the author of the novel. It used to solve the problems that have been determined before. The primary data source in this research is none other than the novel *The Boy Who Harnessed the Wind* (2015) by William Kamkwamba and Bryan Mealer. This novel has 293 pages divided into 15 chapters. It published by Puffin Books-an imprint of Penguin Random House LLC, New York.

C. Data Collection

According to Arikunto (2010), collecting data can be called a process and how to get data for research conducted. In this ecological study, the data are taken from *The Boy Who Harnessed The Wind*. Since the data is in the form of words, the researcher obtained it in several techniques like reading, documenting, making important notes, and marking the key points from the book. For further analysis, the writer used the following steps:

1. Reading the novel repeatedly.
2. Understanding the content of the novel.
3. Finding out the data related to research problems.
4. Writing down the significance notes from the novel.
5. Organizing data into several parts based on their classifications.

D. Data Analysis and Interpretation

The last activity is to analyze and interpret the data obtained to results some answers to the problems under study. Data analysis is the process whereby researchers systematically search and arrange the data to increase their understanding of the data and to enable them to present what they learned to others (Nisak, 2014). To investigate the Ecological theme in the novel, the researcher will read carefully and look for the geography and ecological aspects in each paragraph, even in every word. This includes examining all of its intrinsic features. Some of the processes involved in researching and interpreting this object are as follows:

1. Classifying the data into different categories according to research questions.
2. Exploring and describing the state of nature from the perspective of ecocriticism theory.
3. Finding out the correspondence between the novel's ecological content and ecocriticism theory.
4. Concluding the data analysis to answer the research problems.

CHAPTER IV

FINDING AND DISCUSSION

As we know, this study aims to describe the death of nature portrayed in the novel *The Boy Who Harnessed The Wind* using an ecocriticism perspective. Therefore, this analysis will focus on the relationship between humans and non-humans. Such as the form of environmental damage and the relationship between nature, humans, culture, and preservation that cannot be separated as the deep ecology principle proposed by Greg Garrard.

Therefore, in this chapter, the researcher presents several data and corpus that can be used as analysis material to answer the research questions in this study. This chapter is divided into three parts. In the first part, the researcher presents data analysis on the state of Malawi's environment. This section contains geographical conditions, natural phenomena, and the death of nature's impact on humans and animals in Malawi. In the second part, the researcher describes the relationship between humans and nature portrayed in the novel. Such as the government-nature relationship and environmental backwardness by the community. Furthermore, the data analysis of the main character's role in solving environmental problems is presented in the last part.

A. Malawi's Environmental Conditions

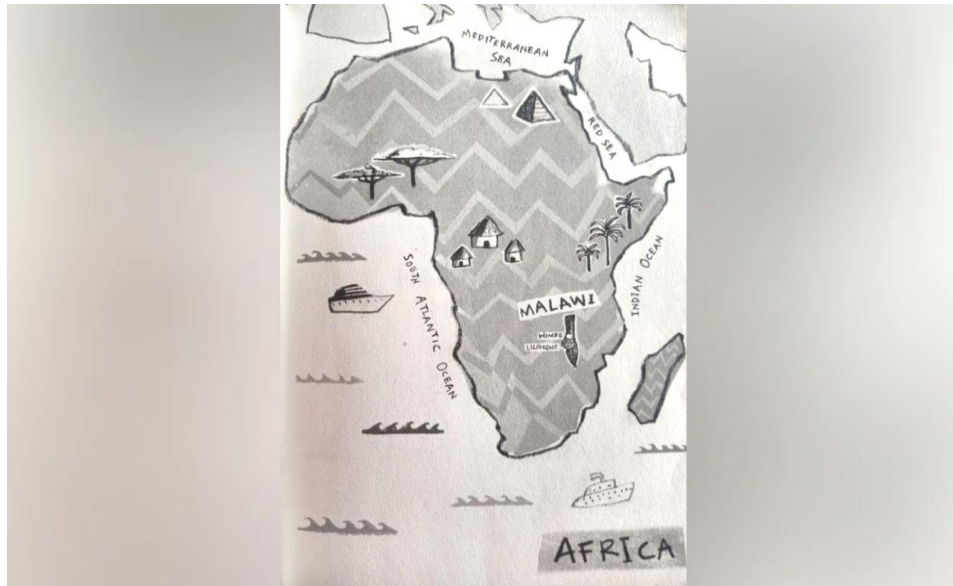
Malawi is a small country that was hardly recognized across the world. The people's lives in Malawi are entirely dependent on the availability of natural resources. Malawi is cut off from global advances due to limited access to technology and information. Malawians face terrible poverty and suffering every

year due to the country's disaster-prone location. This section will examine Malawi's environmental circumstances. The data that proving this phenomenon might be related to geographical and socio-cultural contexts, natural phenomena, and the impact of Malawi's environmental disaster on humans and animals.

1. Malawi's Geographical and Socio-cultural Situation

The main setting of *The Boy Who Harnessed The Wind* is visible on the initial page. Before William and Bryan started the story, they presented a map illustration that revealed the intricacies of Malawi's location with the intention that the reader grasps the context of the story first. It is demonstrated by the data below:

Figure 1. 1 Malawi's map illustration



"Malawi is a tiny nation in south-eastern Africa. On a map, it appears like a flatworm burrowing its way through Zambia, Mozambique, and Tanzania, looking for a little room. Malawi is often called "The Warm Heart of Africa," which says nothing about its location, but everything about the people who call it home." (p. 4)

The data shown above is about Malawi where William lives with his family and the local community. Malawi, a tiny country in southern Africa, is surrounded by Zambia, Mozambique, and Tanzania. The author employs figurative language in the form of a simile to compare the Malawi region to a "flatworm" seeking a small space to survive. Malawi is so small that it is scarcely visible on a map. However, the author used an idiomatic word "The Warm Heart of Africa," which refers to the comfort, welfare, and source of life for the people who reside there. These terms are very suitable with Greg Garrard's pastoral concept.

Garrard (2004) defines that pastoral concept is strongly tied to the status of the landscape, natural beauty, and environmental sustainability, including the abundance of natural resources and human resources there. Previously, Malawi was thought to be a place devoid of civilization. This is also agreeing with Greg Garrard's ecocritical concept. He refers to it as the wilderness. This idea emphasizes the "virginity of nature," which means that nature may endure without intervention from anyone. Malawi is both a symbol and a living manifestation of the wilderness concept. However, the fact that the Malawi region is essentially unknown to many people demonstrates that the region is rarely exposed and rarely receives attention. Therefore, Malawi classified as a poor and underdeveloped country in the world, which is portrayed in the following data:

"You might be wondering what an African village looks like. Well, ours consists of about ten houses, each one made of mud bricks and painted white. For most of my life, our roofs were made from long grasses that we picked near the swamps, or dambos in our Chichewa language. The grasses kept us cool in the hot

months, but during the cold nights of winter, the frost crept into our bones and we slept under an extra pile of blankets.” (p. 5)

The data above plainly show that William hail from the country, he lives in a tiny village called Masitala, located on the outskirts of the town of Wimbe. William's village consisted of only ten houses. This means that only ten families survive there. The houses are described as being made of mud bricks which are painted uniformly white. The house's roof is made of long grass. The roof only functions as a cover for the house which cannot protect it from heat and rain optimally. This data is clearly illustrated that the grasses roof can only slightly cool the body in summer, but cannot warm up the body in winter.

The geographical, climatic, and meteorological conditions of Malawi have a profound influence on human existence. This is agreeing the pastoral concept by Greg Garrard (2004), which holds that humans are molded by the environment in which they live. Malawi is an agricultural country with reasonably fertile land. Hence the majority of Malawians are farmers. This is also following the dwelling concept advocated by Greg Garrard (2004).

Dwelling is a phrase used to describe how natural resources are managed and how inhabited land is utilized. Farming is the only potential job due to a large amount of land and lack of another knowledge. Malawians can make ends meet using natural resources and farming skills passed down from their forefathers. Malawian farmers are forced to plant crops such as wheat, tobacco, and corn due to the region's inclement weather. Some of them even keep animals like goats and sheep. This is reflected in the following paragraph:

“Most families in Malawi are farmers. We live our entire lives out in the countryside, far away from cities, where we can tend our fields and raise our animals.” (p. 6)

The data above shown that natural circumstances heavily influence the type of professions in Malawi. Profession is one of the results of human manipulation towards nature. Humans' manipulation also exemplifies the concept of earth capitalism. According to Garrard (2004), Humans are in responsibility of protecting, conserving, and exploiting natural resources. Therefore, nature can influence human behaviors and lifestyles. In terms of daily living, Malawi lags far behind in terms of technological and scientific advancement. People are still naturally quite backward. The following data demonstrate this:

“Where we live, there are no computers or video games, very few televisions, and for most of my life, we didn't have electricity-just oil lamps that spewed smoke and coated our lungs with soot.” (p.6)

The data above illustrate that aside from enjoying the benefits of technical advancements, it is extremely difficult for Malawians to just live with a good life. For example, access to electricity was still not available to all Malawians in the 2000s. This situation demonstrates Malawi's backwardness in comparison to other countries throughout the world, as seen in the following narration:

“It's true that most people in Europe and America are lucky to have lights whenever they want them, plus things like air-conditioning and microwave ovens. But in Africa, we're not so lucky. In fact, only about eight percent of Malawians have electricity in their homes, and most of them live in the city.” (p. 54)

The data above shown that the lack of electricity in Malawi harms people's productivity. You may imagine how life is dependent on sunshine and has no other option. The limiting of activity is undeniably present, as evidenced by the following data:

“Not having electricity meant that I couldn't do anything at night. I couldn't read or finish my radio repairs. I couldn't do my homework or study for school. No watching-in television. It also meant that when I walked outside to the toilet, I couldn't see the big spiders or roaches that liked to play in the latrine at night. I only felt them crunch under my bare feet. Whenever the sun went down, most people stopped what they were doing, brushed their teeth, and went straight to bed. Not at ten pm, or even nine o'clock- but seven in the evening! Who goes to bed at seven in the evening? Well, most of Africa.” (p.54)

In data above, William describes the limitations of his night activities. He could not study and repair the radio at night. In fact, simply getting to the toilet had to be done in the dark. He could only feel the large spiders or roaches crushing under his feet without seeing them since Malawi has no access to electricity, sundown signals the end of all activities. The majority of folks will prepare to relax and sleep. This means that Malawians' everyday activities end at seven o'clock in the afternoon.

Some Malawians have requested access to electricity, but the terrain's constraints and the high cost of handling have been the key reasons for this not being realized. The following data strongly highlights this issue:

“Electricity does exist in Malawi, but it's very expensive and hard to get at your house. Getting "on the grid" involves squeezing in the back of a pickup-truck taxi and riding several hours to Lilongwe, the capital city. There you would catch another bus to the offices of Electricity Supply Corporation of Malawi (ESCOM) and wait hours in a stuffy lobby until the sour-faced agent called your name. "What do you want?" they might ask. "I would like electricity," you'd tell them. "Hmm. We'll see what we can do." After you'd fill out an application and paid a lot of money, they would ask you to draw them a map of your village and house. "That's me," you say. "I live here." And if your application got approved, and if the workers were able to find your home, then you'd have to ne more money for them to install a pole and wires.” (p.55)

Those data describe the complexity of the application process for access to electricity is enough to make William and the surrounding community difficult. The fact that you have to drive for hours to the city center, queue for services at Electricity Supply Corporation of Malawi (ESCOM), and pay to pinpoint the

location and treatment is very frustrating for residents. Even when someone has managed to have electricity in their home, ESCOM may cut off the electricity from time to time, usually for reasons of energy-saving. And someone will automatically go back to sleep at seven o'clock in the afternoon as usual. Furthermore, the only source of lighting that Malawian colors have is the simple lanterns they make from recycled goods. As explained in this data:

“The only lights we had were lanterns, and not the fancy kind that are powered by batteries. Our lanterns were made from empty powdered milk cans, which we bent closed at the top and filled with kerosene. Our wick was a piece of an old T-shirt, which we ripped into strips and soaked in fuel” (p.54) “Worse, it produced thick black smoke that irritated our eyes and throats and made us cough.” (p. 55)

The data above illustrates that the light source used is not a good lantern, but is made from an old milk can filled with kerosene. The wick is a piece of an old T-shirt, which we tore into pieces and soaked in fuel. Kerosene is very similar to gasoline and smells just as bad. You can imagine, in a house with thatched roof, lanterns are like a real fire hazard.

In terms of news and information media, Malawi only has radio to keep up with the world's information. People in rural villages and cities will be spotted listening to their favorite radio station because they do not have power or television. This is demonstrated in the following story:

“Since we didn't have electricity or television, the radio was our only link to the world outside our village. The same was true in many other parts of Africa. In most places you go, whether its deep in the forest or in the city, you'll see people listening to small portable radios. At the time, Malawi had two stations called Radio One and Radio Two, both run by the government” (p. 46)

The data above shown that Malawi's news and information sources are under the control of the government. In contrast to many areas throughout the world, where people may freely and comprehensively access information over the

internet. In addition to news, William stated that the station carried sports, music, American rhythm and blues, Chichewa gospel choirs, and Sunday church sermons.

Besides that, the education and health situation are quite troubling. These two components are not viable in Malawi due to a lack of qualified human resources. This is reflected in the data below:

“Farmers here have always been and not '10od many can afford an education. Seeing a doctor is also difficult, since most of us don't own cars. From the time we're born, we're given a life with very few options. Because of this poverty and lack of knowledge, Malawians found help wherever we could. Many of us turned to magic-which is how my story begins.” (p. 6)

This data illustrates the lack of knowledge and education which has an impact on the social and environmental conditions. As the examples mentioned, just seeing a doctor is very difficult in Malawi. This is because there are not enough adequate human resources to become medical personnel. Malawians are powerless. They don't have many alternatives for dealing with the situation. Underdevelopment resulted in undeveloped social situations. For instance, in this modern era, Malawians still believe in myth and magic and these two things are still applied in everyday life. This again happened because of the poor education there. Both in terms of systems and infrastructure, as well as scientific awareness.

This is demonstrated by the following data:

"My current sehool, Wimbe Primary, certainly didn't seem like a place where scientists came from. It was located down the wooded trail from Gilbert's house, just opposite the mosque. It was a community school supported by the government, and the conditions were quite shabby. The iron sheets on the roof were full of holes, and when it rained, the water poured down on us. The rooms were too small for the large number of students, and some classes were held outside under trees. With all the trucks going past, plus the birds, insects, and people walking around, it was impossible to concentrate. The administrators didn't provide us with lesson books of our own. The teachers always ran out of chalk, and most students never owned a pencil. To spell their name, or give the

sum of two times two, and they' ll probably scribble the answer in the dirt with their finger.” (p.58)

The data above portrays Malawi's inadequate educational system, facilities, and overall status. Starting with the building's unsuitable state, the school's ineffective location, and the government's disregard for educational issues. According to the data above, the school is fairly run-down and lacks enough room. The top of the building is leaking everywhere. Due to a lack of facilities, teachers frequently conduct the teaching and learning process outside of the classroom, creating an unfavorable learning environment. Another issue with the educational system is that students do not even have proper textbooks and uniforms, teachers always run out of chalk, and the majority of students do not even have pencils to write with.

2. Natural Phenomena and Disasters in Malawi

Malawi's geographic position, climate, and weather all contribute to a variety of natural occurrences, including natural catastrophes and the death of nature. An apocalypse is a natural devastation phenomenon. According to Garrard (2004), this concept used to analyze the destruction of the order of the environment and civilization. Garrard also classifies environmental damage as part of this apocalypse concept. Some of Malawi's natural disaster phenomena are as follows:

a. Droughts

Malawi is prone to natural catastrophes due to irregularities in climate and weather. Significant climatic change has influenced Malawians' survival. For example, in Malawi, the limited rainfall makes crop cultivation

problematic. Almost the whole country of Malawi is dry during the summer.

The following data demonstrate this:

"Our district survived without much damage, except that after the rains finally stopped, they never came back. Malawi entered a drought." (p.68)

Malawi has portrayed as being in drought in the data above. For a long time, there will be no rain. Of course, this circumstance affects the socio-economic conditions in the area. Many farmers struggle to maintain their gardens, even though farming is the primary source of income for the vast majority of Malawians. Drought gradually kills all vegetation. The following data depict this situation:

"With no rain, the sun rose angry in the sky each morning and showed no mercy on the seedlings that had survived. By February, the stalks were wilted and bent toward the ground. By May, half our crop was scorched. The plants that remained were only as high as my father's chest. If you took one of the leaves in your hand, it would crumble to dust."

The data above shown that Malawian farmers' hopes have been dashed by a months-long drought. They could see the plants' growth day by day, which was becoming increasingly unpleasant. The plants began to wither and dry in February. Then, three months later, about half of the plants died, leaving just the elderly plants swinging between life and death. This ailment undoubtedly generated concern across Malawi, particularly among William and his father. And all hopes of a harvest feast that year must be abandoned. The following dialogue between William and his father exemplifies this restlessness:

"One afternoon, my father and I stood in the field and studied this destruction. "What will happen to us next year, Papa?" I asked. He let out a

sigh. "I don't know, son. But at least we're not alone. It's happening to everyone." There was no celebration that harvest." (p. 68)

The conversation above illustrates a very deep sadness. The sentence *"I don't know, son, but at least we're not alone. It's happening to everyone."* This shows that this drought does not only have an impact on William and his family. But the entire community of Malawi experienced crop failure that year.

b. Flood

Previously, we have known that climate change and extreme weather in Malawi have made this area unbalanced. When heavy rain happen, then puddles will occur everywhere. Moreover, the practice of deforestation that results in the loss of water catchment areas will trigger flooding. The flood disaster is described in the following paragraph:

"Without trees and forests covering the land, simple storms can turn into flash floods, whenever it rains heavily, the water rushes through our farms and carries away the important soil and minerals that help plants to grow. The soil-plus a lot of plastic bags and other garbage- washes into the Shire River, where ESCOM produces all of Malawi's electricity from turbines." (p.56-57)

The data above shown that the forest land reduction will inevitably worsen the issue. Without trees, the land will collapse and cannot hold water, and it will be unable to contain water. When it rains, the water flows directly to the residential area. It includes driving through plantation areas and harming the ecology. Finally, crop failure is possible. The floodwater also contains waste material which might harm inhabitants' important facilities. Such as ESCOM and other structures. The flood is also certainly a polluting source of clean water and spread disease in Malawi. This is agreed Greg

Garrard's concept of pollution and contamination. He stated that one of the most prevalent environmental problems is water pollution. This pollution or contamination occur due to the destruction of the environmental ecosystem's balance. The following paragraph exemplifies this situation:

“Across Africa, it's an unfortunate companion of every rainy season. Many villages have poorly built latrines that flood with the rains and pollute the wells and streams where people drink. Blowflies also spread the bacteria. After crawling out of toilets and landing on food.” (p. 128)

According to data above it shown that the flood has become a widespread concern throughout the African continent. It includes the effects on health and the death of nature. It is also about the sanitation of the latrines. If the latrines are contaminated, the drinking water and food consumed will become infected with bacteria and germs. According to Garrard (2004), water pollution is the contamination of water's bodies caused by human activity. As a result, public awareness and government policies are the most important factors to consider.

c. Storm Wind

Storm Wind was the next natural catastrophe that strike the Malawi region. Many possible calamities occur in the African continent due to its hot environment and weather. For example, when heat and dryness combine, a tornado arises in various locations including the location where William and his family lived. This occurrence is related to Garrard (2004) earth concept where the earth is the primary authority informing the chain of life. Including issuing phenomena and natural disasters for humans. One of the examples is

the phenomenon of strong winds, which is described in the following paragraph:

“For weeks we'd gone without rain, then finally one day in March, giant storm clouds appeared in the distance. The sight of oily, black thunderheads was something to celebrate. "Look," people said. "Today we'll have rain!" "Finally, we're saved!" But as the clouds came overhead, a strong wind began to blow. It whipped the red dirt into our eyes and mouths and sent little cyclones tearing through the fields. Little by little, the storm drifted away without leaving a drop.” (p. 239)

The data above shown that Malawi has high weather and temperatures, and when there is no rain, the wind will blow, sweep the land, and causing losses like a crop failure and environmental facility damage.

3. The Death of Nature’s impact on Humans and Animals in Malawi

a. For Humans

The death of nature in Malawi has created several problems for Malawian people’s living conditions. It caused a famine, disease outbreaks, bankruptcy, anarchy, dropouts in education, and worsening economic conditions. It also impacted the people survival conditions. For instance, as a result of crop failure, Malawian people experienced a long famine. This condition is reflected in the following paragraph:

“The drought had destroyed all of the crops in the countryside, and the families in the smaller villages had run out of food. Their storage rooms were empty, and now they were hungry.” (p. 70)

The data above clearly shown the famine crisis situation. Starting from the crop failure that occurred, Malawian people experienced unbearable hunger. There is no more food left. There is no longer any land that produces wheat or corn to support their life. Food scarcity happened. This situation illustrated in the paragraph below:

“The following week, the gaga finally ran out in the trading center. People began living on pumpkin leaves, and when that was gone, they shifted through the garbage for banana peels and old corncobs. Along our road, they wear up tree roots and ate grass, anything to fill their stomachs.” (p. 114)

The paragraph above describes the recent food scarcity. It was a tragic scenario in which people were starving and began to eat everything they could find. They can only consume leaves, scavenging through the garbage for leftovers, hoping to locate edible banana peels, and seeking old corn kernels left in the garden. Along the road, William observed individuals plucking plants and grass to live. The narrative continues with William witnessing the pitiful efforts of those around him to find sustenance. This hunger condition is also reflected in the following data:

“But when I looked closer, I realized what the Mwales were eating—pumpkin leaves and stewed, green mangoes. They weren't even ripe, and I'm sure they tasted awful. “You'll find no food here,” Mister Mwale said, wrinkling his nose as he chewed.” (p. 71)

The data above illustrate the incident occurred when William intended to ask Mr. Mwales, but the reality he saw was pathetic. Not a single mango left. The Mwales eat pumpkin leaves and young mangoes that are not even ripe. William and his family had expected this to happen. However, they didn't expect it to be so soon. The following data shows this situation:

“The famine arrived at our door sooner than I imagined. our last pail of maize, giving us just twelve more meals as soon as she left, I opened the storage room and peered inside. All that remained were empty bags piled in a corner like dirty laundry. I tried to remember what the room had looked like when it was full, but I just didn't have the energy.” (p. 78-79)

The condition of famine is again illustrated through the paragraph. William told of the fact that previously the barn in his former home was filled with wheat, but after this crisis occurred, only piles of sacks were left

scattered like dirty laundry. Accepting that reality was very difficult for William and his family. Some people from other villages took the option of becoming a part-timer worker to earn a meal. They are willing to do any job to survive. The following data describes these conditions:

“Later, I saw several men digging ridges in Mwale's field for ganyu. They were from the outer villages, and each walked away carrying a handful of those same green mangoes.” (p. 71)

The data above shown that famine caused a very serious life crisis. Since there was no food, the Malawians ate whatever they could find. Including unripe mangoes. The famine indirectly has an impact on the decline in the health of Malawian people. Many people are sick and malnourished. This condition is also illustrated in the following paragraphs:

“But once the scorching sun rose in the sky, the hunger revealed itself in everyone. People suddenly appeared exhausted, as if they hadn't slept in days. The skin around their faces was shrunken and their eyes squinted against the hard light. It had probably been weeks since many had eaten a proper meal, and the government store was their last and only hope of survival. As the sun rose hotter, they grew more and more feeble.” (p. 84)

The paragraph above describes the condition of Malawian people during the famine. Day by day, Malawian people are becoming more and more weak and helpless. They skin shrank until leaving only their bones. They had not eaten proper food for weeks. They looked exhausted all the time. They could not see the sun, tired, lethargic, limp, and sicker every day. Then, the peak of hunger occurred as described in the following statement:

“In 2006, when I was eighteen years old, another famine struck Malawi.” (p. 237) “By the time my dowe season arrived, most of the ears were deformed. The government quickly promised help, but in the meanwhile, people grew angry and scared.” (p. 238)

The data above shown that Malawi's condition gets worse when the peak of famine occurs. People who expect help from the government slowly begin to feel disappointed and emotional. The government's role in overcoming the crisis is very important, as is the concept of social ecology. Garrard said that the government as the party in power has the authority to analyze the problem that has arisen ecologically as a result of human intervention in the natural world. However, due to class struggle, class conflict, and power relations, the government becomes a party that turns a blind eye and runs away from its responsibilities. This is following the concept of eco-Marxism which is rife in the order of life. This situation makes people start to fear and worry about survival in Malawi. They slowly get sick and start to lose energy. This irony is also felt even more concerning through the statements in the data below:

"As starvation set in, their bodies began to change. Some people become so thin, they looked like walking skeletons. Others came down with kwashiorkor, a condition caused by the lack of protein." (p.114)

Based on the data above it shown that famine is getting worse. People look thinner and lose energy. Only the pour and the skin remain. Many people suffer from kwashiorkor due to a lack of protein in their bodies. They slowly became helpless undead. Besides that, several other diseases that attack Malawian people are cholera and diarrhea. This disease outbreak affects the majority of Malawians. The following data illustrates this situation:

"Two weeks after I buried my dog, cholera swept our district. Doctors said the sickness started in southern Malawi back in November. A farmer

visiting a funeral brought it north, where it spreads like grassfire. Within days, hundreds of people were sick and twelve had died." (p. 128)

Through this paragraph, William talks about the beginning of the cholera disease spreading to his area. The cholera first appeared in Southern Malawi in November, and then spread rapidly throughout the region. This disease outbreak attacked hundreds of people and caused quite a lot of casualties in a short time. Cholera is a disease that is quite deadly. It spreads due to the death of nature. Its conditions show through the following statement:

"Cholera is a highly contagious infection that causes severe diarrhea. People mostly get it by eating food or drinking water that's been contaminated with feces." (p. 128) ... "After crawling out of toilets and landing on food." (p. 128)

The data above tells that cholera is a disease that has a very high transmission rate. This disease causes severe, prolonged diarrhea. This disease begins when food and drink are contaminated with dirt. In Greg Garrard's environmental concept, this disease is included in the case of water pollution. It is classified as very dangerous environmental damage. This water pollution can affect all aspects of human life. Starting from food hygiene, body health, and disease transmission. This water pollution occurs because Malawian people do not yet know the criteria for proper toilets and latrines for health. This fact is clearly illustrated in the paragraph below:

"Another problem at Wimbe were the toilets-just a few grass huts with a deep hole covered with logs. It didn't take long for the termites to make their nests inside those logs and eat them hollow." (p. 59)

The description of the toilet in the data above is indeed very inappropriate. The poor condition of the toilet will certainly bring up many

diseases and bacteria in clean water. Moreover, coupled with weathered wood and insects that roam the place, this toilet automatically becomes a nest of disease for residents. The chain of occurrence of this disease is described in the paragraphs below:

“During the famine, people out looking for food became the unwitting carriers. The cholera struck them on the roads and forced them to become sick in the bush. Rain, flies, and cockroaches then spread the infection onto the banana peels, roots, and corn husks that others picked up to eat.” (p. 129)

The data above shown that the chain of the death of nature has a significant impact on the onset of disease epidemics. Starting with hunger, which affects everyone, they consume food by the side of the road, even if it is unfit to eat. Bacteria, insects, and a contaminated environment propagate viruses and diseases to food, such as banana peels, roots, leaves, bushes, and maize husks that other people scavenge for sustenance. Not just cholera, but also diarrheal illness affects the majority of Malawians. This situation is demonstrated in the following paragraph:

“The diarrhea that results in clear and milky and quickly leads to dehydration. If people aren't treated immediately, they could die.” (p. 129)

The data above shown that diarrhea is a sickness that is just as dangerous as cholera. Conditions in which humans lose ions and water in their bodies can result in unexpected death. The Malawi central clinic is taking the following steps to overcome this disease. It shown in the data bellow:

“To combat the cholera, the clinic at the trading center started giving away chlorine to clean our drinking water. For months it tasted like metal. They also advised families FE to cover the holes of their latrines to keep out the flies.” (p. 129)

The actions described in the paragraph above demonstrate the central clinic's attempts to manage illness outbreaks. The distribution of chlorine to the population is intended to minimize the severity of the sickness. Furthermore, sealing the latrine is likely to break the cycle of this disease. Then, in order to survive, Malawians began to sell everything of their possessions, even though the only furniture they have. These conditions show that poverty exists as well. The following paragraph exemplifies this:

“A few days later, my father started rounding up our goats to sell in the market. ...Now we were trading them for a few pails of maize. The men who ran the kanyenya stands selling fried meat had enormous power now. The prices they offered for goats, pigs, and cows went lower each day, yet people still lined up to sell. (p. 73)

The data above shown that the increasing poverty rate can be seen from the market ecosystem which is starting to break down. This is in accordance with Garrard's cornucopia concept. He claimed that the abundance of natural resources was to blame for the market price drop. When a commodity becomes rare and difficult to get, capitalists will take advantage of the situation by offering comparatively pricey substitute resources. As a result, individuals will work tirelessly to fulfill their wants, even at exorbitant rates.

According to the preceding paragraph, Malawian people desire to sell their products and all of their things. Pets and house furnishings are included. Even at such a modest cost. It also happened to William's family. They also chose to sell the goats they had been caring for to increase their agricultural cash. Despite this, William and his family recognized that there was little

chance for a crop in these trying times. This heartbreaking reality is further demonstrated when William asks a guy why he is selling his dining table, the sole thing in the man's life. The man responded with a subtle sarcasm that portrayed the anguish in his eyes. He stated:

“Because what good was a kitchen table when you had no food to eat on it?” (p. 89)

The data above illustrates a very serious irony. Where humans are willing to sell all their possessions and goods just for a mouthful of food to fill their stomachs. Even if the food is obtained from selling cutlery, they will do it. It is clearly illustrated in the following paragraph:

“In the days after Chamama, people started selling their possessions to stay alive... Women carried giant pots on their heads containing the items from their kitchen: cups, spoons, knives-everyday utensils of a normal life unhinged. Men lugged chairs and sofas on their backs. One man dragged a heavy dining room table through the mud. They were all headed for the trading center to see how much money or corn they could get.” (P. 89)

Based on the data above it shows that Malawi is experiencing a life crisis. The fact that the people have no option but to accept their fate demonstrates how backward Malawi is. Selling live equipment is a dangerous last option. Poverty and misery are worsening by the day. This paragraph becomes the primary image of life's end on the land of Malawi.

Moreover, the socio-economic impact of the environmental crisis on Malawian people is that it affects more than just food scarcity, hunger, disease, and poverty. It did, however, affect commodity price inflation, which rose sharply, as shown by the data below:

“Some traders still spread their tarps in the mud and sold grain, but the units had become smaller and smaller, and its price was like gold, like buying the universe and stars in one half-kilo. Crowds gathered around, but mostly to stare in stunned amazement, as if watching a dream in heaven.

Those with energy used it to scream and beg so their families might live. "Bwana, just a small plate of flour for my child. That's all I need. It's for my child." (p. 116)

The first sentence in the data above has a very exaggerated metaphor. Buying grain in the market is like buying gold bullion. It is also like buying the whole planet in kilograms. These situations indicate that Malawi's commodity prices are no longer stable. Garrard (2004) classifies this situation under the idea of the cornucopia. When humans are pushed into a desperate situation, they must choose between survival and exhaustion of everything they have. Availability of different food alternatives, such as whole grains, is a new idea growing in cramps. This is demonstrated by phrases including narratives about Malawians being captivated by the seed. They make a fantastic display of the food as if they were in ecstasy. But unfortunately, they could only scream and plead with the merchant. In hopes of receiving a plate of flour for his family at home.

The natural disasters phenomena mentioned above also affect the lives of Malawian women. They are the only ones who suffer the most during famine. According to Garrard (2004), ecocriticism also tries to uncover the link between women's oppression and the death of nature. Due to the natural disaster that occurred in Malawi, every day women are so difficult to find food that can be cooked. They have walked elsewhere to get food for their families. This is shown in the following paragraph:

"About a dozen people were gathered in his yard, talking in low, worried voices. They were mostly women, each wearing brightly colored head scarves like my own mother, and carrying an empty basket. "Who are these people?" I asked. "They've run out of food in the far villages," Gilbert said." (p. 69)

The paragraph above demonstrates a significant connection between women and the environment. The sentence "*and carrying an empty basket.*" shows that women are symbols of environmental disasters. The sentence implies that the starvation that occurs causes the women to be unable to carry out their usual activities. They can't cook and trade anymore. The phrase "*They've run out of food in the far villages,*" also indicates that women are also responsible for what happened. Their efforts to going out of the village to get food show that this crisis has had a profound impact on women's lives. This is clear evidence of women's dominance over nature. Garrard (2004) states that women have been connected with nature, the material, the emotive, and the specific, while men have been associated with culture, the nonmaterial, the logical, and the abstract.

According to Garrard (2004), women have a profound connection with nature. Nature is regarded as feminine during the 'Mother of Earth' stages. That is, women are the first to see signs of natural change. This includes the indicators of natural deterioration that will develop. For instance, when food is scarce. Women will be the first to hear about the horrible things that will happen in the future. We may learn this through William's mother's words:

"This year will be a disaster." My mother's face seemed sticky. "Only God can help us," she whispered. After that, hunger came to Malawi." (p. 71)

The data above contain a very deep irony. It shown that this concern is visible from the expression on William's mother's face. This concern turned

into resignation through the sentence "*Only God can help us,*". This hope is a manifestation of a woman's last hope about the natural wonders of her God.

Malawi's food scarcity is a perfect illustration of the concept of Heideggerian eco-philosophy. Garrard states that the scarcity of an item occurs due to human existence. We can see this from the fact that Malawian people not only live and live there, but they also exploit and take advantage of the environment. In another situation, women are also victims of the anarchy of the surrounding environment. Amid poverty and hunger, women are the only parties who look weak in front of other humans. This is illustrated by the story excerpt below:

"That evening when she returned, her hair was wild and her face full of worry. "They took almost everything," she said, and she was right. For supper, there were only crumbs." (p. 103)

The data above illustrates when William's mother was selling her wares in the market. Since famine and crop failure attack Malawi, people began to excuse all kinds of ways to gain food. Including doing anarchy and robbing food from other people. The phrase "*her hair was wild and her face full of worry*" shows how much a woman suffers as a result of the death of nature. This situation makes women as objects who are hurt and have no power. As a result of this incident, William's family lost a very valuable dinner for them. All that was left were crumbs to stuff his stomach.

Not just in terms of food. Due to the death of nature, women also have difficulty finding drinking water to meet their household needs. It is illustrated in the paragraph below:

“In addition to fetching water in Wimbe, my mother and my sisters routinely walked two miles to the small blue- gum forest near Kachokolo to cut down a bundle of thin trees-a chore that took at least three hours. This wood was still green, and burning it produced thick white smoke that poured from our kitchen windows. Looking inside, I'd see my poor mother stirring the pot of nsima, squeezing her eyes closed as tears ran down her cheeks. All the girls in my family developed nasty coughs each year.” (p. 233)

The paragraph shows the struggle of William's mother and sister in getting clean water. They have to fetch clean water to the center of Wimbe and have to walk about two miles to find firewood. This is a result of the reduction in forested land due to the large-scale felling of trees in Malawi. The women there had to spend almost three hours in the blue gum forest gathering firewood. Unfortunately, the wood is still very green and difficult to burn. The wood just produces thick white smoke that billows in the kitchen. William narration, *“Looking inside, I'd see my poor mother stirring the pot of nsima, squeezing her eyes closed as tears ran down her cheeks”* contains a very deep irony. Because of the bad air and kitchen fumes, her mother, older sister, and younger sisters had severe coughs all year round.

Actually, the scarcity of firewood is a very serious problem for Malawian women. This problem stems from the practice of massive deforestation in the area as told in the paragraph below:

"In Malawi, this is every woman's burden. And I knew these journeys to find wood would only get longer and fonder. Plus, the deforestation would only create more devastating droughts and floods.”(p. 233)

The paragraph describes the impact of the deforestation towards the lives of Malawian women. Due to deforestation, women have to spend a long time looking for firewood. They have to walk very far because wood is getting scarce every day. Deforestation also triggers natural disasters such as

droughts and even very powerful floods. The irony of Malawian women's lives is also reflected in the following data:

"Ever since I'd built the windmill, women asked me, "Does electric wind allow your mother cook?", "The answer was no. My windmill didn't supply enough voltage to power a hot plate, much less an electric stove or oven." (p. 234)

The data above shown that conversation occur when William finally succeeded in making a simple windmill. A woman approached him and asked whether the windmill might provide electricity for cooking. William also stated that the windmill could not do the task. He said that the windmill was not operating properly and could only produce a low voltage.

The inquiry "*Does electric wind allow your mother to cook?*" conveys a woman's expectation for a change in her living conditions. This question indicates a relation between women and nature that cannot be isolated from Greg Garrard's idea of deep ecology. According to Garrard (2004), women and nature will not be separated. Women become one of the parties who are in direct contact with nature because women are the ones who manage all the needs of their family life. Such as cooking, washing, trading, and others. Therefore, if nature is not okay, then the first to be affected are women with all their domestic affairs.

Another environmental crisis impact on humans is in terms of education. Hunger, disease outbreaks, and poverty have caused a decrease in attention to aspects of education in Malawi. Many Malawian children have to drop out of school because there is no money to pay for and buy proper

school equipment. William is one of the children who have to drop out of school. The following paragraph exemplifies this condition:

"My worst fear had come true. I knew my father hadn't paid my fees, but who was I kidding? We were eating one meal per day. We couldn't afford to buy a bar of soap, much twelve hundred kwacha for my school. Walking less pay home, I got mad at myself for even getting excited and coming in the first place. I'd allowed myself a glimpse of the dream, and now it was crumbling all around." (p. 111)

The data above illustrate when William had to bury his dream deep within himself. The fact that his family had to work hard to get a piece of food made him understand that continuing his education was out of the range. His family struggles to acquire basic necessities, much alone pay for school expenses. William's family is struggling as a result of Malawi's school system, which still requires full payment. The following data demonstrate this:

"Fees for this term are due Monday," he said. "And those students who didn't pay last term's fees must also pay those without delay." (p. 166)

The paragraph above shows the difficulty of fulfilling the educational aspect in Malawi. A student who has no fees has no right to study at the school. This is very contrary to the principles of education. However, we cannot ignore the fact of the importance of education costs and facilities. This paragraph describes the education in Malawi's secondary schools, which is very different from elementary schools which ignore fees and don't mind if they only use basic clothes and pencils. This paragraph shows the lack of tolerance and empathy in the world of education in Malawi. Despite the death of nature and poverty in Malawi, educators choose to ignore and turn a blind eye to the fact that not all Malawians can afford to pay for their children's

schooling. William, who did not have a proper uniform and shoes in danger of having to leave school like the rest of his friends. Until one day William and his father asked the school for policy and fee waivers. The following conversation describes the situation:

"Guys, I paid," I said, trying to be cool. "I just forgot receipt. I'll get it and come right back. Once outside, I began to cry, then I went home and told my father the news. "I've been expecting this," he said. "I just didn't know when" But instead of breaking my heart, my father went to see Mister Tembo and pleaded on my behalf. The tobacco would be ready in a few weeks, and after paying his creditors, my father was hoping against hope there'd be enough left to sell and cover my school. "I'll have the money soon," he said. "Just please let him stay." (p. 168)

The paragraph above explains the William family, who place a high value on education. William's father vowed to find money to pay for William's schooling. He assured William's school principal, Mr. Tembo that he will pay the fees after harvesting tobacco in his garden. However, it is not only a problem of money, high schools in the area are becoming increasingly stringent in terms of attire and conduct. William, who was without his uniform and shoes, deserved a severe punishment from the principal. William and his family are threatened as the scolding continues. The following data backs this up:

"Well, William, this is not the proper uniform." I threw both hands under my arms to hide the yellow stains. But Mister Phiri was pointing at my feet. "Sandals are not allowed," he said. "We require students to wear proper footwear at all times. Please go home and change." I looked down at my flip-flops, which had seen better Teu days. The rubber connecting the sole was broken on one of the sandals, forcing me to carry a needle and thread in my pocket for emergency repairs. I didn't have another pair of shoes at home." (p. 107)

Based on the data above it shown that William was subjected to censure after the rebuke. The above statement is one of the principal's frequent rebukes directed toward William. Beginning with educational debt,

improper attire, and ruined boots. The school does not condone such behavior. Eventually, William was forced to leave the school he loved. This situation is described in the following paragraph:

"My father tried negotiating again with Mister Tembo, but Mister Phiri forbade me to return. He said that his boss, the Minister of Education, was visiting various schools to ensure that students were paying their fees. "If we're caught, we could lose our jobs." said Mister Tembo. I was sitting in the courtyard when my father returned with the news. "I've done my best," he said, "but the famine took everything." He kneeled down to face me. "Please understand son. Pepani, kuwa mbiri. I'm very sorry. Your father tried" It was too difficult to look at him. "Chabwino," I said. "I understand." (p. 169-170)

Based on the data above it shown that although William's father tried hard to negotiate with the school, the decision to expel William still occurred. The school reasoned that the decision is based on the Minister's and Malawi's government's policy. Without cost discipline, education activists will not be able to survive. They claim to have no other profession. They do not have agricultural land, livestock, or valuables things to support their living. If delays in paying school fees are allowed, it will threaten the lives of teachers and staff. William is very disappointed with the decision, but he can only surrender and reflect on the bad luck ahead. This can be seen clearly through William's narration below:

"My greatest fear was coming true: I would end up just like him, another poor Malawian farmer digging the soil. Thin and dirty, with hands as rough as timber and feet St that knew no shoes. My life would forever be controlled by rain and the price of fertilizer and seeds-never by me. I would grow corn, and if I was lucky, maybe a little tobacco. And years when the crops were good and there was a little extra to sell, perhaps I could buy a new set of clothes. But most of the time, there would be hardly enough to eat. My future had been chosen, and thinking about it scared me so badly, I wanted to be sick. But what could I do? Nothing, only accept." (p. 171)

The narration above describes William's resignation to the bad days that will hit him. After being officially kicked out of school, William knew

the only thing he could do was go back to the fields with his father. Grow corn, wheat, or tobacco in shabby clothes and under the scorching sun. Treat plants with smelly and dirty fertilizers. It depends on life on rainfall and natural weather. Waiting for a harvest that sometimes doesn't live up to expectations. And now he cannot avoid this bad reality. He just needs to give up and live it happily. Through the above conditions, we can conclude that the death of nature in Malawi has had a very large impact on all aspects of Malawian people's lives in terms of health, education, and the welfare of life.

b. For Animals

The Malawian animals have been affected by the Malawi's environmental catastrophe. Here is an example:

"Look," Charity said. "Is he dead?" We walk closer. Khamba was in the same position as when we'd left him. His head rested on his front paws, and his eyes were wide open. I gasped, expecting him, to move. Then I saw his year old sticking out. It was dry like paper and covered with ants."(p. 127)

The preceding story above depicts the circumstances when William's dog, Khamba, dies. People in Malawi did unusual things in response to hunger. Including killing of their pets. During the crisis, William was unable to feed Khamba. It is causing the dog to become very thin and unwell. William, unable to endure the sight of his dog's condition, led Khamba into the forest. William had to tie it there and check it out the next day. Khamba's death demonstrates how the environmental disaster and starvation had a significant influence on animal life. Not only a dog, but the wild creatures in the forest died one by one as a result of the crisis. The following data illustrates this:

“The police conducted all-night searches. Then one evening, they managed to corner the beast in a thicket and opened fire with their rifles...(p. 238). The next morning, the beast lay dead on the road-its single corpse bigger than a dog.” (p. 239)

The data above illustrate when wild animals began to enter residential areas to endanger the safety of the residents there. As a result, the police carried out patrols every night and found several wild animals roaming around. The next day some of the animals died and lay on the side of the road. This situation fits perfectly with the eco-animals’ concept proposed by Greg Garrard. He said that nature and animals have a very close bond. The existence of ecosystems and food chains makes the two inseparable. Therefore, the death nature of Malawi has harmed the preservation of local animals.

B. Human-nature Relationship According to The Main Character Illustrated in The Novel

The death of nature in Malawi occurs not only because of the influence of natural conditions and geographical location, but the role of humans in caring for nature is also one of the factors destroying nature itself. Two factors trigger the destruction of Malawi's environment, namely the poor relationship between government and nature, and environmental backwardness by the community.

1. Government-Nature Relationship

a. Deforestation

Malawi's government has a terrible relationship with nature. This is demonstrated through environmental exploitation, such as deforestation. The practice of deforestation is very rampant in Malawi. Government policies and the arbitrary actions of the government succeeded to damage the natural

resources there. Massive deforestation is occurring in almost all of Malawi's forest lands. Thus, it causes serious damage to ecosystems and the environment. The practice of deforestation is illustrated through the data below:

“Part of the reason is deforestation, which is a real problem in Malawi and other parts of the world.... most of the lush green forests that once covered the country back in Grandpa's youth are gone. The rest is being cut down and used as firewood.” (p. 57)

The data above contains irony, where William gives a clear example of deforestation practice by losing the green forest area behind his grandfather's house. As we have seen, the lack of access to electricity in Malawi makes wood and fire become the only sources of lighting and fuel for cooking. This deforestation practice is a manifestation of earth-capitalism, where humans feel they are the rightful parties to exploit nature for their own interests. Yet without realizing it will harm themselves. If the practice of deforestation is continuing, the Malawian people will certainly lose their lives and everything. This situation is reflected in the paragraph below:

“As I mentioned earlier, deforestation in Malawi has made it difficult to find firewood for cooking, and gathering wood only adds to this destructive cycle. A good harvest of maize usually gave us enough dried cobs to burn for about four months. But once those were finished, the hunt for wood began.” (p. 233)

The data above is sufficient evidence of the scarcity of wood as a basic need of Malawian people. It is caused by massive deforestation practices. Previously, the community still had the option of wood from the rest of the wheat harvest or dry cobs as a substitute for wood. However, after the food crisis and crop failure occurred, they had no other choice of material

to replace wood. This is also the main proof of the concept of Heideggerian eco-philosophy proposed by Garrard (2004), where human behavior causes the scarcity of all-natural resources.

b. Corrupt Government

The government political game is the third human-nature interaction that affects Malawi's natural environment. This is part of the eco-Marxist idea. Garrard (2004) noted that a region's environmental policy is inextricably linked to its political goals. The social chasm that exists between the government and the community. The two fundamental players in the social order deserves to be addressed. Authorities' rules frequently run counter to life's reality. For example, the life crisis that happened in Malawi was caused not only by natural events but also by the government's deviant conduct, such as corruption and selling government assets, which were significant elements in the collapse of the order of life. Inflation and unsustainable agriculture policies aggravated the issue even further. The following paragraph reflects this situation:

“In December 2000, everything went terribly wrong. Our first problem was the fertilizer. For years and years, the Malawian government made sure the price of fertilizer and seed was low enough so every family could afford a crop. But our new president, a businessman named Bakili Muluzi, didn't believe the government's job was to help farmers. So that year, the price of fertilizer was so expensive that most families-ours included-couldn't afford to buy it. That meant when the rains came and the seedlings pushed their way through the soil, we had nothing to give them. “Sorry, guys,” I said as I stood in the field. “You're on your own this year.” For those farmers who were able to afford fertilizer, it hardly matters anyway. Because as soon as the seedlings showed their tiny faces, the country began to flood. Heavy rains fell for days and days, washing away houses and livestock, along with the fertilizer and many of the seedlings themselves.” (p. 67)

The paragraph above shows that there is a discrepancy between government policies and natural crises. This fact started with the appointment of a new president, Bakili Muluzi, who drastically raised the prices of fertilizers and agricultural equipment. Previously, Malawian farmers had been guaranteed access to agricultural materials such as fertilizer and seeds at low prices. However, with this new policy, many farmers were affected and failed to produce agricultural products. Even if there are farmers who can afford to buy fertilizer, it will be useless because the flood will destroy their agricultural land. The sentence *"Sorry, guys," I said as I stood in the field. "You're on your own this year."* It is an irony to describe misery. William apologized to the seeds of the plants in the field for not being able to provide them with the fertilizer and nutrients they needed.

"A few days later, however, my father returned from the trading center, where a group of farmers had held a rally. They'd delivered some terrible news: A few dishonest men in the government had sold our emergency corn and taken off with the money. "They're saying there's nothing left," he told my mother." (p.70)

Based on the data above it shown that the misfortunes of the Malawian people are getting worse. The existence of government that sell the country's food supplies makes the situation even more chaotic. Malawian people will certainly experience hunger and poverty that cannot be denied. It is a social-ecological phenomenon. Garrard (2004) states that when one side between humans and nature deviates or abuses the situation, both parties will be affected. In this situation, Malawians people are the ones who suffer the most. Some of the government's behavior indirectly has a bad impact on the environment. Starting from the high cost of plant maintenance, crop failure

due to lack of fertilizers, and natural disasters to the scarcity of food supplies. All of this happened because the authorities were unable to protect the environment.

2. Malawian's Environmental Backwardness

Malawi's backwardness is caused by several factors. Among them is the lack of awareness about the importance of being friendly with nature and maintaining its sustainability. Whereas it is very influential in shaping environmental and cultural ecosystems. The factor that causes this backwardness is that human resources are not yet developed, so they put science aside.

The relationship between nature and humans in Malawi is quite bad because there is no sensitivity and awareness from each community to love the environment. It is happened due to the lack of education quality in Malawi. Many eco-social phenomena describe this as follows:

*"Within minutes, a dozen people gathered at the base and gazed up at the machine. I recognized a few of them as traders and shopkeepers." One was named Kalino. "What is this thing?" he asked. Since there's no word in Chichewa for windmill, I used the phrase magesti a mphepp) "Electric wind," I answered. "What does it do?" "Generates electricity from the wind. "That's impossible," Kalino said, laughing. He turned to get a reaction from the crowd. "It looks like a radio tower, and what kind of silly toy is that?" "Well," I said, "just stand back and watch." "Let's see how crazy this boy really is," I heard someone shout.
(p. 198-199)*

The conversation above occurred when William had just succeeded in setting up a windmill. This situation successfully illustrates the backwardness of human resources in Malawi. Kalino, who is told as one of the people who laughed at William's idea. He did not know that the windmill was a great technology. He doesn't believe a tower with toys hanging on it can generate electricity. Moreover, the majority of the people gathered there were also laughing at William's tools and

innovations. They even called William a madman with his invention. Told in another context, when Malawi was suffering from a terrible drought. People began to blame William's windmill. This is demonstrated in the following paragraph:

“With nothing but the scorching sun left in the sky, people gathered at my house and pointed up to my windmill. The blades were spinning so fast, the tower rocked and swayed. “Look, this giant fan has blown away the clouds. His machine is chasing away our rain!” “This machine is evil!” “It’s not a machine-it’s a witch tower. This boy is calling witches.” (p. 240)

Based on the data above it shown that disasters that often occur make Malawian people getting fears all the time. With limited knowledge, they sometimes conclude irrational things. As stated in the preceding paragraph, the people blamed the drought on William and his windmill. They say that the tower of the windmill rotates and sways to dispel the clouds and block out the rain. They shouted and saying that those devices was a monster and William was an evil wizard. The same thing is also illustrated in the following data:

“During the famine of 2001-02, people blamed the corrupt officials who’d sold off our surplus. But this time, instead of acknowledging the weather, they blamed magic. And that meant blaming me.”(p. 238)

Based on the data above it shown that besides blaming corrupt government officials, people blame William and all his innovations. They don't even believe in the climate and the weather. William responded patiently because he knew that the people around him did not understand the technology. Another data that shows the backwardness of the Malawian people are as follows:

“A few months later, some aid agencies arrived and offered more assistance. No one starved or died. A catastrophe had been avoided, but still it underlined the kind of backwardness in our people that really frustrates me.” (p. 241)

The data above describe that even though Malawians people are still underdeveloped, there are some many parties will support and offer assistance for

William. William's words "*the kind of backwardness in our people that frustrates me*" become the main point that shows the fact that Malawian people are still very lacking in terms of knowledge.

C. William's Role in Solving the Problem of Malawi's Environmental Damage

William was the main figure who was very influential in saving Malawi's environment. He is a child who has environmental sensitivity and a very high sense of love for nature. To improve Malawi's environmental conditions, William trying to build a windmill to support the socio-economic conditions of his area. It will be discussed further below:

1. Build a Windmill

Since childhood, William lived in a poor environment. He witnessed various misfortunes experienced by the people around him. William's pain is clearly illustrated in the data below:

"Why can't I touch the wall and get light? Why am I always the one stuck in the dark searching for a match?" (p.57)

The data above describe the darkness of Malawi. William always wondered why as long as he lived his nights were always pitch black. He always imagined that he could live on electricity and light. The sentence above contains a deep irony. During this time, William always found it difficult to study at night as it illustrated in the following data:

"For several months I stayed awake past dark and studied beside the smoky lamp. I spent hours reading over my lessons in Chichewa, English, math, social studies, and agriculture-a subject that we all had to take because we were farmers" (p.59)

Based on the data above it shown that William with his high spirit continuously deepens his knowledge amid limitations. It is said that there are several priority subjects according to the environment he lives in, including agriculture and several other supports. William's struggle to continue learning amid a lack of funds is an extraordinary thing. The data below describes William's struggle in studying:

“But just as I'd feared, I was behind in everything: geography, agriculture, math, all the subjects I'd studied in the library. I struggled for the first two weeks, copying all the notes I could, while trying to get the hang of classes once again. It had been a long time, and so much had happened.” (p. 165)

The data above shows that due to limited funds, William still studied secretly in the library. He learned all the lessons left behind from his friends, copying all lesson notes and occasionally listening to classes that sometimes he can't keep up with. Gradually, William enjoyed learning about the natural sciences and science. Until he discovered a book inspired him to fall in love with physics.

The following data describe the incident:

“What's this? I wonder. Pulling it out, I saw it was a textbook from America called Using Energy-and this book has since changed my life. The cover featured a long row of windmills, though at the time I had no idea what a windmill was. All I saw were tall white towers with three blades spinning like a fan.” (p. 147)

According to the data presented above, William's life altered after reading the book *Using Energy*, which was released in America. He found the book in the corner of a shabby library. With the book, it was like getting water in the middle of the desert. Gain hope to get out of backwardness. Get a bright light in the middle of the night. Behind the cover of the book with a picture of a windmill is written the following special sentence:

"Let's find out." Energy is all around you every day," the book said "sometimes energy needs to be converted to another form before it is useful to us. How can we convert forms of energy? Read on and you'll see."(p. 148)

The data above tells that the book's introductory sentence succeeded in attracting William's heart to study energy, technology, and machines more. This book inspires him to improve his surroundings by utilizing natural energy. The book discusses in-depth windmill technology and the use of wind energy as an energy generator. William highlights the following knowledge from the book

Using Energy:

"People throughout Europe and the Middle East used windmills for pumping water and grinding grain," it said When many wind machines are grouped together on wind farms, they can generate as much electricity as power plant," (p.148)

The data above illustrate when William knows that the majority of countries in Europe and the Middle East have utilized wind energy to generate hydropower and processing machines by making windmill areas as electricity generators and so on. After reading and understanding the book, William made up his mind to invite his friends and people around him to realize the idea. For the first time, William shares his dreams and plans with his closest friend, Gilbert.

The incident is illustrated in the following data:

"If the wind spins the blades of a windmill," I said, "and the dynamo works by turning the pedals, these two things could work together." I remembered what the book had said about the dynamo: The movement energy is provided by the rider. "Gilbert, the rider is the wind!" (p. 149)

In the data above, William explained his idea slowly to Gilbert. He first explained how the winding mechanism could rotate the vanes, then continued on the dynamo that could generate electricity. He is convinced that energy can be generated from a movement. This means that the greater the power of motion

given, the greater the energy produced. He also reveals the benefits of windmills for life through the following data:

"And if I attached a wire to the dynamo, I could power anything, especially a lightbulb. All I needed was a windmill and I could have lights. No more smoky lanterns that left us with afternoon throats awake and hacking coughs. With a windmill, I could stay and read instead of going to bed at seven with the rest of Malawi. But most important, a windmill could also With most of Malawi still reeling from famine, a water pump water. pump could do wonders. At home we had a small, low well that my mother used for cleaning. The only way get that water was by bucket and rope. But if I attached a windmill and to that well, I could pipe water into dun our fields." (p. 149)

The data above depicts William explaining and convincing Gilbert regarding his windmill idea. He said that connecting the cable to the dynamo would produce electrical energy for lighting, could study and read books at night, and most importantly could pump and flow water into the fields easily, with no smoke lanterns that hurt the throat, no need to sleep and stop activities at seven o'clock in the evening, not feeling the dryness of the dry well. William also continued his determination by saying the following narration:

"My God, I think. We could harvest two times per year, While the rest of Malawi went hungry during December and January, we'd be picking our second crop of maize could also allow my mother a year-round gar- The pump den to grow things like potatoes, mustard greens, and soy beans-both to eat and sell at the market. With a windmill, we'd finally release ourselves from the troubles of darkness and hunger. A windmill meant more than just power. It was freedom. "Gilbert, I'm going to build a windmill." I'd never tried anything like it before. But I knew that if someone else could build them in Europe and America, then I could build one in Malawi." (p. 150)

William's motivation to build the windmill was to make his family and the people around him to be in a better condition. William realizes his environmental ideal through the concept of environmentalism in the form of reforestation. With a windmill, farmers can harvest twice a year, expanding the variety of crops that were originally only corn and wheat into gardens and various vegetables. William also hopes that the windmill will be a solution to darkness and hunger. William

was very excited, he thought that if other countries could make it, then he could do it too. William does have a sense of love for nature and a very high social sensitivity to the surrounding environment. It is illustrated in the following narration:

"Someone had to save our women and trees, and I thought, Why not me?" (p. 234)

Based on the data above it shown that William's invention of a windmill sprang from his concern for the destiny of women and the environment in Malawi. However, as we have seen, the majority of Malawians are still very knowledgeable. Therefore, William is very difficult to realize his dream. Starting from looking for raw materials to make windmills, to convincing people around to help him. First, William persuaded his father to be willing to give his bicycle dynamo to manufacture a windmill. It gives rise to a long debate as shown in the data below:

"My father's broken bike had ho leaning against the wall of the living room for over a vea- handlebars, collecting dust and dirty laundry. One day I finally gathered the courage to ask him if I could use it for my windmill. I sat him down and explained the entire process, how the bike frame would make the perfect body and be sturdy enough to handle strong winds. I described how the wind and blades would act as pedals to spin the wheel and power the generator. "Electricity!" I said, spreading my arms like a magician. "Water!" My father just shook his head. "Son, please don't break my bike. I've already lost so many radios. Besides, one day we'll use that thing." (p. 174)

The narration above describes William's struggle to convince the people closest to him. However, limitations made William's father not allow William to use his bicycle dynamo. For him, the little boy's words were just a passing wind that would only make things worse. Even though William had tried to explain how the machine worked scientifically, his father still didn't consider it. This fact made William even more uneasy. He was very annoyed with the people around

him who did not understand knowledge and did not want to listen to his opinion.

It is illustrated by the data below:

"I saw them on bicycles everywhere, and most of the time they were broken, not even attached to a bulb. I'd think, God what a waste! Give it to me and I'll show you how to use it! (p. 184)

The narrative above is an expression of William's frustration. He felt very frustrated with this state of deprivation. The only crucial tool he needed was a dynamo. However, no one wanted to help him. Bikes passed in front of him with a dynamo hanging from the front tire. Although almost everything has been damaged and does not work turning on the lights. William cursed here and there because no one around him wanted to support this innovation. Finally, William's father also allowed William to use the only bicycle dynamo. It is clearly illustrated in the dialogue below:

"I have a plan!" I persisted. "Allow me to try. Just think, my Deen we could have lights! We could pump water and have an extra harvest! We'll never go hungry again. ear, perhaps you're right. But please don't mess it up (p. 175)

Through the dialogue above, William's father is depicted risking the last valuable item left to support his son's creativity. The final line he spoke, "don't mess it up," indicates high expectations. William liked it a lot. William pledged to try his best. Finally, William obtained the precious thing he need.

2. 6r (Reduce, Reuse, Recycle, Repair, Refuse, Rethink) Practice

William's struggle is not over. Even to make a decent windmill William still needed a lot of other materials. With all his limitations, William collects used goods that can be used to make windmills. With the 6r principle, William believes that he can build a windmill even with scrap materials. It is clearly illustrated in the narrative below:

"All of my windmill pieces-the bicycle, tractor fan, shock absorber, and bearings- sat in a picture-perfect row, like in a museum." (p.175)

William may be seen preparing materials for the windmill in the data above. He collects used goods like bicycle dynamos, tractor propellers, silencers, and other printed materials carefully arranged in a museum-like heirloom. This 6R habit is also shown in the following data:

"The following afternoon, I began assembling the machine. I dragged the bicycle, tractor fan, blades, bolts, and dynamo outside and arranged them along the dirt. I'd chosen an area behind the kitchen, which doubled as my laboratory." (p. 187)

In the data above, William describes the windmill manufacturing process. He claims that the area behind his kitchen serves as a laboratory where he performs tests to build his cherished windmill. He assembles and disassembles all of the necessary materials, such as bicycle dynamos, tractor propellers, bolts, screws, and so on. Until he was able to build the windmill of his dreams. William erected the windmill in the sky and soon found himself expecting a miracle. The windmill managed to catch William off guard. The following story exemplifies this situation:

"Just then a strong gust flung me backwards. The tower began to rock, so much that I wrapped my elbow around a rung just to hang on. Inches above my head, the blades began to buzz like a set of angry propellers. I clutched the bulb, waiting for my miracle. Then it came: a flicker, a flash, then a burst of bright, magnificent light. My heart nearly exploded. "Looks!" someone shouted. "He's made light!" "It's true what he said!" (p. 200)

The data above covers a circumstance in which William succeeded for the first time in generating electrical energy from the windmill he built. The worry and restlessness that William felt slowly became relieved after seeing the light bulb turn on. The situation began when the tower was first erected and produced a strong gust of wind, vibrating and sweeping the air around the windmill, rotating

so fast that it was able to cause flashes of light in small lamps. William was surprised as were the people around him. Slowly the windmill rotates very quickly until it becomes light and balanced. Through this success, William proved to everyone that what he had been saying was not mere nonsense. It implied in the data below:

"One by one, the people began to cheer. They waved their hands and shouted, "Wachitabwina! Well done!" "You did it, William!" "That's right," I said. "And now I'm going bigger! Just wait and see!"(p. 201)

The data above illustrates how impressed the public is with the innovations created by William. They praised William and recognized that knowledge was important. William did not stop here. There are still many dreams and innovations that he must develop according to the following expectations:

"And lights were just the first step. The next windmill would pump water for our fields and give us more food. Windmills would be our front line against hunger."(p.206)

William said in the data above that electricity was the first step he developed. However, there are still many other sectors that he must develop in order to save people from hunger and drought. Therefore, William plans to develop a windmill for the water and biogas sector. The process of making irrigation is illustrated in the data below:

"The first was a wide PVC pipe, which I used as my outer barrel. I placed it down the well until I felt it hit the bottom. The second pipe was metal and slightly thinner, perfect for my piston. Mister Godsten then welded a round metal washer to the end of the pipe and left its center hole open. Around the washer I attached a thick piece of tire rubber that acted as the seal. I then had Godsten bend the top of the pipe to make a handle. When the metal pipe was pushed up and down, it created a kind of vacuum inside the outer PVC pipe. When you pulled up, the water was sucked into the plastic pipe, and when you pushed down, the rubber seal opened and pushed the water to the surface, then out a small hole and into a bucket."(p. 232)

The data above depicts the method of producing irrigation energy in Wimbe. By laying a PVC pipe along the walkway, then putting a metal machine followed by rubber to circulate the water. To provide a handle that can be pulled and pushed to allow water to drain to the surface. And the gadget was able to drain water to all fields or simply be transported with a bucket. Furthermore, William improved the function of his windmill to make biogas. It is reflected in the data below:

"I connected both ends to a twelve-volt battery and felt it heat up. Soon the wire was glowing red-hot and the grass caught fire in my hands. It was a simple, kind of stupid experiment, but it really got me thinking: Maybe something like this could boil water. These kinds of coils existed already-I'd seen them in the trading center-but they were powered by ESCOM electricity. I connected mine to a twelve-volt battery and dipped the coil into the water. In about five minutes, it was boiling." (p. 234)

The illustration above depicts the situation when William tries to connect the two ends of the battery until it heats up and manages to burn the grass. Then, with that theory, William thought to put it into practice in making biogas for the residents, especially for the women of Wimbe. William used an aluminum coil to boil water, then gradually assisted with the electrical energy produced by the windmill. William can boil the water for about five minutes after the process is carried out. Over time, the Malawian people felt the real benefits of William's windmill, then they flocked to build bigger windmills to create even more energy.

It is illustrated in the following data:

"During my holidays from school, I constructed a bigger windmill that pumped water, which I called the Green Machine on account of its color. That pump now sits above the shallow well at home and irrigates a garden where my mother grows spinach, carrots, tomatoes, and potatoes, both for my family to eat and to sell at market. Finally, the dream had been accomplished. My family couldn't have imagined that the little wind-mill I built during the famine would change their lives in every way, and they saw this change as a gift from heaven." (p. 274)

The data above illustrates the happiness felt by William and the people around him. With a large windmill that was built in cooperation. William and the surrounding community can irrigate the fields and garden vegetables. So that the increase in the level of economy and welfare increases drastically. Almost everyone did not think that their lives would be made easier by the small windmill that William made. The community is grateful and considers this all a gift from heaven that was passed down through William. In the end, William's success was able to inspire many people. William's name is increasingly famous and is considered a good role model for generations to come. People frequently visit William to hear about his experiences in erecting this windmill. Here are the William's words that are often told to many people:

"I walked them through the steps of how I'd built every- thing using everyday materials. "So many things around you are reusable," I told them. "Where others see garbage, I see opportunity." I hoped I was inspiring them in some way, because if I could teach my neighbors how to build windmills, I thought, what else could we build together? "In science we invent and create," I continued. "We make new things that can benefit our situation. If we can all invent something to make our lives better, we can change Malawi." (p. 243)

Based on the data above it shown that William often said to everyone who met him, *"Where others see garbage, I see opportunity."* This word implies a message that nothing is useless as long as we want to think critically and want to use it. With a high will, awareness of knowledge, and social sensitivity, humans can make their lives better. This extraordinary incident was heard by one of the African scientists named Dr. Hartfors Mchzime, who was the one who finally introduced William to the outside world. Dr. Mchzime is willing to directly visit William's house to see the windmill built by a little genius. Then he said to William's parents:

"You have lights in your house because of your son," he said. "What do you think of this?" "We thought he was mad," my mother said." (p. 245)

The data above illustrate when Dr. Mchzime's remarks reminded William's parents that their upbringing to value science was not in vain. With his inventions, William managed to make both of them proud. William grew in popularity around the world throughout time. He was asked to be an environmental ambassador, inspiring people around the world with his love of nature and outstanding achievements. William's story was also published in numerous media outlets under the headline "School Dropout with a Streak of Genius." Until 2007, William was permitted to visit the Windmill region in California, where he could witness hundreds of real spinning windmills that he could only see in written books in his old library. The following table depicts William's emotions:

"It was an incredible feeling to see the machines that I'd imagined for so long. Now here they were, twisting in the wind before me. I realized I'd come full circle. The pictures in the book had provided the idea, hunger and darkness gave me inspiration, and I'd embarked myself on this long and amazing journey."(p. 278)

William expresses immeasurable joy in the data above. Finally, he could see something that used to motivate him. Giving hope amid hunger, restrictions, and the gloom of life. To be able to make it as well-known and beneficial to a large number of people as it is now. William is appreciative of this incredible adventure and experience. William concludes this narrative, despite his success and profound love of nature, by saying, *"If you want to make it, all you have to do is try."*

CHAPTER V

CONCLUSION

This chapter concludes the analysis about the death of nature in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*. Moreover, this chapter is also equipped with suggestions that are expected to be able to help further researchers in analyzing the same literary work or with the same research method as this study.

A. Conclusion

In this study, researcher tried to analyze the condition of Malawi's natural destruction as described in William Kamkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*. After analyzing the data, the researcher found that Malawi's environmental conditions are quite poor. Its geographical location in a barren environment has an impact on unstable climate and weather. Therefore, many natural disasters such as droughts, floods, and storm winds occur and negatively impact the lives of humans, and animals. Humans are infected with illnesses such as cholera and diarrhea due to contaminated water, and animals die slowly due to hunger catastrophes and lose their habitats.

Furthermore, the natural damage is also caused by human bad behaviour towards the environment. Such as massive deforestation actions accompanied by corrupt government that makes bad policies towards the environment. However, it cannot be denied that the backwardness of knowledge and the low quality of human resources are also factors that make the situation worse.

However, during a crisis, William, the main character, became a pioneer in improving the environment through his innovation in establishing a windmill. During limited materials and lack of trust from the surrounding community, William still tries to build his dream windmill using the principles of 6R (*reduce, reuse, recycle, repair, refuse, rethink*). Concern for the environment and sensitivity to the circumstances made William a hero in protecting the lives of Malawians people. Finally, William's story about the death of nature in Malawi has spread throughout the world and has the potential to inspire a large number of people.

B. Suggestion

In this section, the researcher only wants to convey suggestions and hopes. Actually, ecocriticism is a very interesting thing to discuss. After conducting research on Greg Garrard's ecocritical concept contained in William Kambkwamba and Bryan Mealer's *The Boy Who Harnessed The Wind*, the researcher learned several lessons. First, love for the environment is a manifestation of human love for themselves. Second, sensitivity to social and environmental conditions is something that must be owned by everyone for a better life. Finally, researchers know that knowledge is the key of all things. With knowledge, humans can realize their position that nature does not need humans, but humans need it.

Therefore, the researcher hopes that all environmental deviations such as deforestation and massive exploitation of land can be stopped, humans can continue to seek knowledge so that they are able to realize their position in this

world, that they are not the only one who have the power to exploit nature. The researcher also hopes that all the good efforts, enthusiasm, environmental sensitivity depicted through the main character can inspired many people. Furthermore, for further researchers, *The Boy Who Harnessed The Wind* does not only contain the value of ecocriticism. There are still many interesting aspects that can be analyzed, such as the social, political, psychology of the characters in the novel, and so on. The researcher hopes that there will be other analyzes that go deeper into *The Boy Who Harnessed The Wind*.

Finally, the researcher realizes that this study is far from perfect. Therefore, criticism and suggestions from readers are very needed by researcher so that the researcher can do better research in the future.

BIBLIOGRAPHY

- Abhaya S Prasad & Louis Hugo Francescutti. (2017). Natural Disasters. (E. A. University of Alberta, Ed.) *Elsevier Inc.*, 5(2nd edition), 1. doi:10.1016/B978-0-12-803678-5.00519-1
- Apriati, T. (2013). An Analysis of Human-Nature Relationship in Children's Book Julie by Jean Craighead George (An Ecocritical Study). *uny.ac.id*. Retrieved April 7, 2021
- Arikunto. (2010). *Metodologi Penelitian Suatu Pendekatan Proposal*. Jakarta: PT. Rineka Cipta.
- Azizah, R., Darumi, E. N., Emas, G. L., Ma'rufah, Y. S., Purnamasari, L. A., & Sa'adah, S. I. (2017). An Ecocritical Analysis of Young Adult Dystopian Novel in Veronica Rossi's Under The Never Sky. *UIN Sunan Ampel Surabaya*, 2. Retrieved April 7, 2021
- Bchtiar, A. (2019). An Ecocritical Analysis of Nature Condition And Environmental Stewardship In J.R.R Tolkien's The Hobbit. *UIN Sunan Ampel Surabaya Thesis*. Retrieved April 7, 2021
- Bookchin, M. (2022). *The Philosophy of Social Ecology: Essays on Dialectical Naturalism-New Edition*. (T. McGowan, Ed.) AK Press. doi:9781849354400
- Braveman, P. (2010). Social conditions, health equity, and human rights. *Health and Human Rights Journal*. Retrieved from <https://www.hhrjournal.org/2013/08/social-conditions-health-equity-and-human-rights/>
- Buckingham, S. (2004). Ecofeminism in the Twenty-First Century. *JSTOR*, 170(2), 148. doi:<https://www.jstor.org/stable/3451591>
- Budi, N. K. (2018). Ecological Crisis in Into The Forest by Jean Hegland. *journal.unesa.ac.id*. Retrieved April 7, 2021, from <http://journal.unesa.ac.id/article/download>
- Budi, N. K., & Dr. Ali Mustofa, S. M. (2018). Ecological Crisis in Into The Forest by Jean Hegland. *journal.unesa.ac.id*. Retrieved April 7, 2021, from <http://journal.unesa.ac.id/article/download>

- Buell, L. (2005). *Future of Environmental Criticism: Environmental Crisis and Literary Imagination (Blackwell Manifestos)*. United Kingdom: Wiley-Blackwell. doi:1405124768
- Buell, L. (2005). *The Future of Environmental Criticism: Environmental Crisis and Literary Imagination*. United States: John Wiley & Sons. doi:978-1405124768
- Buell, L. (2019). *Writing for an Endangered World: Literature, Culture, and Environment in the U.S. and Beyond*. United States: Belknap Press. doi:0674012321
- Bukharin, N. (2013). *Historical Materialism: A System of Sociology*. Eastford: Martino Fine Books.
- Capra, F. (1995). *Deep Ecology: A New Paradigm. (Deep Ecology for the Twenty First Century)*. (G. Sessions, Ed.) Boston: Shambhala Publications.
- Charles M. Schweik, C. M. (2020). World librarians: A socio-technical system providing library search services. *ELSEVIER (World Development Perspectives)*. Retrieved from www.elsevier.com/locate/wdp
- Charles M. Schweik, C. M. (2020). World librarians: A socio-technical system providing library search services. *ELSEVIER (World Development Perspectives)*. doi:www.elsevier.com/locate/wdp
- Coolen, H. (2006). The Meaning of Dwellings: an Ecological Perspective. *Taylor & Francis Online*, 1. doi:10.1080/14036090600909469
- Cuomo, C. (2002). On ecofeminist philosophy. *philpapers.org*. doi:10.1353/een.2002.0016
- David, S. (2016, June). Eco-Fiction: Bringing Climate Change into the Imagination. *University of Exeter*. Retrieved May 7, 2021, from <https://ore.exeter.ac.uk/repository/bitstream/handle/10871/24331/DavidS.pdf?sequence=1&isAllowed=y>
- Deepanee Samarakoon Cedar Falls Community Schools and Latisha L. Smith. (2020). Who Moved Those Rain Clouds to Town? Making Windbirds to Learn about the Power of Wind. *Journal of STEM Arts, Craft, and Constructions*, 1 no.2, 23-37. Retrieved from <http://scholarworks.uni.edu/journal-stem-arts/>

- Derrida, J. (2008). *The Animal That Therefore I Am*. French: Fordham University Press. doi:978-0-8232-2791-4
- Dieterich, M. (2018, January 18). Sustainable development as a driver for innovation and employment. *Underscienceonline (The Online Platform for Inderscience Publisher Journal)*, 12(1-2). doi:10.1504/IJISD.2018.089245
- Dimou, E. (2020). *Is It Time to Reassess Our Relationship with Nature?* BBC Ideas. Retrieved from <https://www.youtube.com/watch?v=5gWGP34-4tY>
- Dong, X., Liu, S., Li, H., Yang, Z., Liang, S., & Deng, N. (2020, January 1). Love of nature as a mediator between connectedness to nature and sustainable consumption behavior. *ELSEVIER (Journal of Cleaner Production)*, 242. doi:10.1016/j.jclepro.2019.118451
- E Demetriadou, M. K. (2015). Extending the psychological support services to the underage family members of critically ill patients: the ariadne program. Retrieved from <https://icm-experimental.springeropen.com/articles/10.1186/2197-425X-3-S1-A647>
- Elliott, L. (2020, September 9). environmentalism. *Encyclopedia Britannica*. Retrieved from <https://www.britannica.com/topic/environmentalism>
- Environmental Degradation. (n.d.). *Environmental Degradation*. Retrieved from Conserve Energy Future: <https://www.conserve-energy-future.com/causes-and-effects-of-environmental-degradation.php>
- Environmental literature. (n.d.). *Environmental literature*. Retrieved from Green Wiki: https://green.fandom.com/wiki/Environmental_literature
- Foer, J. S. (2009). *Eating Animals*. Back Bay Books. doi: 978-0316069885
- Gaard, G. (2011). Ecofeminism Revisited: Rejecting Essentialism and Re-Placing Species in a Material Feminist Environmentalism. *ResearchGate*. doi:10.1353/ff.2011.0017
- Garrard, G. (2004). *Ecocriticism*. New York: Routledge. doi:0-203-67401-4
- Garrard, G. (2004). *Ecocriticism (The New Critical Idiom)*. London and New York, USA and Canada: Roudledge. doi:ISBN 0-203-64484-0 Master e-book ISBN
- Garrard, G. (2004). *Ecocritism; The New Critical Idiom*. New York: Routledge.

- Garrard, G. (2014). *The Oxford Handbook of Ecocriticism*. New York: Oxford University Press.
- Gladwin, D. (2017, July 26). Ecocriticism. *Oxford Bibliographies*, 1. doi:10.1093/OBO/9780190221911-0014
- Glotfelty, C., & Fromm, H. (1996). *The Ecocriticism Reader: Landmarks in Literary Ecology*. Athens and London: University of Georgia. Retrieved from https://jirayuri.files.wordpress.com/2016/05/cheryll_glotfelty_harold_fromm_the_ecocriticismbookzz-org.pdf
- Gráda, C. Ó. (2015). *Eating People Is Wrong, and Other Essays on Famine, Its Past, and Its Future*. New Jersey: Princeton University Press. Retrieved from <https://books.google.co.id/books?id=M2yYDwAAQBAJ&pg=PA177&lpg=PA177&dq=five+out+of+11+million+Malawians+are+at+risk+of+starvation+by+the+president&source=bl&ots=AfBCTgxdKP&sig=ACfU3U0PA5e7LUfOOBvdAHarD9SaA7kUcw&hl=id&sa=X&ved=2ahUKEwiHkvb9pdz4AhUd1HMBHcx4>
- Gruyter, D. (2016). *Handbook of Ecocriticism and Cultural Ecology*. Berlin: Deutsche Nationalbibliothek. doi:ISBN 978-3-11-030837-2
- Guo, R. (2021). *Cross-Border Resource Management Forth Edition*. (C. M. 50 Hampshire Street, Ed.) Cambridge: Elsevier Inc. . Retrieved from <https://doi.org/10.1016/B978-0-323-91870-1.00012-4>
- Hartmut Jagau, Member, IEEE, M. Azeem Khan, Member, IEEE, and Paul S. Barendse, Member, IEEE. (2017). Design of a Sustainable Wind Generator System. *ResearchGate IEEE Transactions on Industry Applications*. doi:10.1109/ECCE.2011.6063977
- Hegland, J. (1998). *Into the Forest*. California: Dial Press Trade Paperback. doi:ISBN 0553379615
- Hornby, A S. (2006). *Oxford Advanced Learner's Dictionary*. Oxford: Oxford University Press.
- Howarth, W. (1996). *Some Principles of Ecocriticism*. Athens: University of Georgia Press. doi:978-0820317816.

- Is it time to reassess our relationship with nature. (2020). *Is it time to reassess our relationship with nature?* BBC Ideas. Retrieved from <https://www.bbc.co.uk>
- Itäranta, E. (2014). *Memory of Water*. New York: HarperCollins Publishers LLC. doi:9780007529919
- John. (2012, November 1). .Problems in Ecosystem. Retrieved on Thursday, p. 1. Retrieved from http://www.ehow.com/info_8015221_problems-ecosystem.html
- Junus, U. (1986). *Sosiologi Sastra: Persoalan teori dan metode*. Kualalumpur: Dewan Bahasa dan Pustaka Kementerian Pelajaran Malaysia.
- Kendra H. Oliver, J. D. (2019). igilante Innovation (VIX): case study on the development of student skills througha team-based design process andenvironment. *International Journal of STEM Education*. Retrieved from <https://stemeducationjournal.springeropen.com/>
- Kiehne, L. (2018, May 4). Defining the Genre of Environmental Literature Defining the Genre of Environmental Literature. *Honors Capstone Projects*, 9, 23. Retrieved from <https://digitalcommons.morris.umn.edu/honors/9>
- Kirk, G. (1997). Ecofeminism and Environmental Justice: Bridges across Gender, Race, and Class. *JSTOR*, 18(2). doi:10.2307/3346962
- Lim, S. (2020). *Environmentalism and Literature: Ecocritical Theory*. Retrieved from <https://www.youtube.com/watch?v=L5xOwOHC4jA&t=391s>
- Mambrol, N. (2016, November 27). *Literary Theory and Criticism*. Retrieved from literariness.org: <https://literariness.org/2016/11/27/ecocriticism/>
- Meliono Budianto, I. (2002). *Realitas dan Objektivitas*. Jakarta: Wedatama Widya Sastra.
- Menon, R. (2007). Famine in Malawi: Causes and Consequences. *Human Development Report Office OCCASIONAL PAPER*, 7. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.422.4541&rep=rep1&type=pdf>
- Mirjam de Groot, M. D. (2011). Public Visions of the Human/Nature Relationship and their Implications for Environmental Ethics. *Environmental Ethics*, 33(1), 1.

- Monica Adhiambo Onyango & Malyse Uwase. (2017). *Humanitarian Response to Complex Emergencies and Natural Disasters*. Boston, US: International Encyclopedia of Public Health. Retrieved from <https://doi.org/10.1016/B978-0-12-803678-5.00220-4>
- Muzafer, S. (1948). *An Outline Of Social Psychology* (First ed.). London: Digital Library of India; Harper And Brothers Publishers New York. Retrieved from Digital Library of India Item 2015.523803
- Næss, A. (1989). *Ecology, Community and Lifestyle: Outline of an Ecosophy*. UK: Cambridge University Press.
- Naess, A. (1995). *The Deep Ecological Movement- Deep Ecology for the Twenty First Century*. (G. Sessions, Ed.) Boston: Shambhala Publication.
- Nature is speaking. (2014). *Nature is Speaking*. Retrieved from [conservation.org: https://www.conservation.org/nature-is-speaking/](http://www.conservation.org/nature-is-speaking/)
- Nisak, N. (2014, December 09). The Role of The Main Character's Psychological Conflicts to The Theme Seen In Ahmad Fuadi's The Land of Five Towers. (E. R. S.Sos, Ed.) Tulungagung, East Java, Indonesia: IAIN Tulungagung. Retrieved from <http://repo.iain-tulungagung.ac.id/id/eprint/481>
- Orville, & Wright, W. (2008).
- Otero, L. L. (2019). An Ecocritical Analysis of Wide Sargasso Sea. *USC (Universidade De Santiago De Compostela)*, 3. Retrieved April 7, 2021
- Oxford Advanced Learner's Dictionary. (2006). *Oxford Advanced Learner's Dictionary*.
- Pallavi Saxena & Anju Srivastava. (2020). *Air Pollution and Environmental Health*. Springer; 1st ed. 2020 edition (June 8, 2020). doi:B089WBFNQ3
- Peck, J., & Coyle, M. (1984). *Literary Terms and Criticism*. New York: Macmillan Education UK. doi:0333962583
- Perry, J. (2010). *Summary and book reviews of The Boy Who Harnessed the Wind by William Kamkwamba*. Retrieved from [www.bookbrowse.com: https://www.bookbrowse.com/reviews/index.cfm/book_number/2351/the-boy-who-harnessed-the-wind](https://www.bookbrowse.com/reviews/index.cfm/book_number/2351/the-boy-who-harnessed-the-wind)
- Phiri, F. (2006, January 4). Challenges 2005-2006: A Difficult Year Ahead for Famine-Hit. *IPS Terraviva Online*.

- Pluess, M. (2015, April 23). Individual Differences in Environmental Sensitivity. *SRCD (Society for Research in Child Development)*, 138-143. doi:10.1111/cdep.12120
- Raj Patel & Alexa Delwiche. (2002). The Profits of Famine: Southern Africa's Long Decade of Hunger. 8(4). Retrieved from https://sarpn.org/documents/d0000131/SOUTHERN_AFRICA'S_LONG_DECADE_OF_HUNGER.pdf
- Ravindra Singh & Puneet Tandon. (2016, September 2). A Sustainable Approach to Develop Universal Products. *Academia (Accelerating the world's research)*, 5. Retrieved from https://www.academia.edu/28998563/A_Sustainable_Approach_to_Develop_Universal_Products
- Renaud, A. (2014, May). The controller's role in environmental management control. *Cairn.info International Edition*, 20(2), 2. doi: 9791093449012
- Ruskin, J. (1884). *The Storm-Cloud of The Nineteenth Century*. London: London Institution.
- Sari, D. N. (2011). Pengaruh Sosial Terhadap Perubahan Sikap Tokoh Melanie Charmichael dalam Film Sweet Home Alabama. *Diponegoro, Univercity*, 5-32.
- Schumann, K. N. (2020). A socio-psychological modal choice. *Energy Informatics*. Retrieved from <https://energyinformatics.springeropen.com/articles/10.1186/s42162-020-00123-7>
- Seymour, V. (2016, November 18). The Human–Nature Relationship and Its Impact on Health: A Critical Review. *Frontiers in Public Health*, 3. Retrieved from <https://doi.org/10.3389/fpubh.2016.00260>
- Sinha, I. (2007). *Animal's People* (1st ed.). Great Britain: Simon & Schuster. doi:978-0-7432-5920-0
- Siswanto. (2010). *Metode Penelitian Sastra*. Surakarta: Pusat Belajar.
- Stevens, A. H. (2015). *Literary Theory and Criticism: An Introduction*. Canada: Broadview Press.
- Storey, J. (2009). *Cultural Theory and Popular Culture 'An Introduction' Fifth Edition*. (P. Education, Ed.) United Kingdom: Longman.

doi:<https://www.amazon.com/Cultural-Theory-Popular-Culture-Introduction/dp/B0085AWPO6>

Strangor, D. C. (2014). *Principles of Social Psychology – 1st International Edition*. BCcampus.

Sungkono, W. (2015). The Beginning of The End: An Ecocriticism Analysis on Clive Staples Lewis' The Chronicles of Narnia: The Last Battle. *English Department Thesis*, 5.

Suzanne Tillmann, B. B. (2018, Nov 26). Nature makes people happy, that's what it sort of means: children's definitions and perceptions of nature in rural Northwestern Ontario. *Children's Geographies*, 17(6), 713. doi:10.1080/14733285.2018.1550572

Suzanne Tillmann, B. B. (2018, Nov 26). Nature makes people happy, that's what it sort of means: children's definitions and perceptions of nature in rural Northwestern Ontario. *Children's Geographies*, 17(6), 713. doi:10.1080/14733285.2018.1550572

Tahier, A. P. (2017). An Ecocritical Analysis of Nature and Culture in The Maze Runner Trilogy Novel by James Dashner. *English Letter Department Thesis*, 2-77. Retrieved April 7, 2021

Tan, C. (2019). An Ecological Study of J.G. Ballard's Climate Fiction Novels. *The Institute of Social Science Doctoral Thesis*. Retrieved April 7, 2021

Taylor, D. (1997). Woman of Color, Environmental Justice, and Ecofeminism. In D. Taylor, *Woman of Color, Environmental Justice, and Ecofeminism* (Vols. Ecofeminism: Women, Culture, Nature). Indiana University Press.

Taylor, M. S. (2009, November). Environmental Crises: Past, Present and Future. *Canadian Journal of Economics*, 6. Retrieved from https://www.wto.org/english/res_e/reser_e/gtdw_e/wkshop09_e/taylor_e.pdf

The boy who harnessed the wind. (2019). *Goodreads- Historic Documentary Film-Global, Eclectic, Rare*. Retrieved from goodreads.com: <https://www.goodreads.com/book/show/22504703-the-boy-who-harnessed-the-wind>

The boy who harnessed the wind. (2019). *Netflix Family Features*. Retrieved from netflix.com: <https://www.netflix.com/id-en/title/80200047>

- Upstone, S. (2017). *Literary Theory: A Complete Introduction*. Hachette UK. doi:1473611938, ISBN 9781473611931
- Upstone, S. (2017). *Literary Theory: A Complete Introduction*. United Kingdom: Hachette UK. doi:1473611938, 9781473611931
- Vint, S. (2010). Animal Alterity: Science Fiction and the Question of the Animal. *academia.edu*, 269. Retrieved from https://www.academia.edu/4828288/Animal_Alterity_Science_Fiction_and_the_Question_of_the_Animal
- Warren, A., & Wellek, R. (1949). *Theory of Literature*. New York: Harcourt, Brace, and Company.
- Wellek: Warren. (1994). *The Theory of Literature*.
- Widiya, R. (2019, September 16). Analisis Ekokritik Sastra Novel Ping! A Message From Borneo Karya Riawani Elyta dan Shabrina W.S. *repository.umsu.ac.id*, 1. Retrieved from <http://repository.umsu.ac.id/handle/123456789/1377>
- Wiyatmi. (2013). *Sosiologi Sastra*. Indonesia: Kanwa Publisher.
- Wright, G. A. (2017, July 4). Engineering attitudes: an investigation of the effect. *CrossMark*. doi:10.1007/s10798-017-9417-0
- Zhang, Y. (2017). Social class differences in consumption propensity in contemporary China – from survival-oriented consumption to development-oriented consumption. *The Journal of -Springer*. doi:10.1186/s40711-017-0066-1

CURRICULUM VITAE



Dilla Rachma Aprilia was born in Bojonegoro on April 3rd, 1999. She graduated from Sambiroto 1 Elementary school in 2011 and continued her study at Mts AI At-Tanwir Bojonegoro and MA AI At-Tanwir Bojonegoro. She lived at Attanwir Islamic boarding school until she finished her studies in 2017. During her junior and senior high school, she participated in many KSM (Kompetisi Sains Madrasah) such as the English Olympiad and several times won the English speech competition. She also became the chief of Attanwir Student Organization from 2014-to 2017. She also won the Musabaqoh Tilawatil Qur'an in the Axioma Madrasah 2015 and became a Bojonegoro delegate in the East Java level competition. Dilla was also selected to take a special double degree program from the Ministry of Religion by majoring in Women's Fiqh at Ma'had Aly UIN Maulana Malik Ibrahim Malang. She has graduated with S.Ag degree at the end of 2021. Her passion for English language then continued until she became a student of English Letters at UIN Maulana Malik Ibrahim Malang in 2017. During her study, she developed various skills and arts. She became the interpreter team of the Bojonegoro Ministry of Culture and Tourism in several international events organized by the government. Like the Bojonegoro Thengul International Folklore Festival 2019. She successfully managed Poland, Mexican, Thailand, and Bulgarian people throughout that event. Starting from early 2021, she has worked as an in-house translator at Translation Linker Malang until now. Dilla has also started her own business. Among these are Ibuk'er Kitchen, which now successfully becomes one of the main culinary products of UMKM in Bojonegoro Regency, and Enomerch Confection, which has monopolized the college student uniform market in Malang Raya. Her interest in language, art, music, and entrepreneurship shows that she is a passionate and hardworking individual.

OVERVIEW

William Kambkwamba is a young man who has inspired people around the world. He wrote his story with Bryan Mealer's into *The Boy Who Harnessed The Wind*. William is a genius who built a windmill out of recycled materials to help save the earth. He is particularly interested in electronics and spends his leisure time repairing radios for numerous of his neighbors. William likes visiting the junkyard in quest of valuables that may be recycled into usable goods.

William lived and grew up in Wimbe, Malawi, Africa which has unstable climate and weather conditions. Malawians people live below the poverty line. Their lives depend only on the Malawi's natural resources. Due to its geographical location and poor environmental conditions, Malawi often experiences natural disasters such as floods and stormwinds. Until one day, Malawi experienced a long drought which resulted in crop failure and starvation. This crisis then continued with the spread of diseases such as cholera and diarrhea due to polluted water. This environmental damage also has an impact on the poor quality of education in Malawi. Many children drop out of school because they cannot pay their bills. The misery was worsened when the Malawian government was discovered to have committed corruption and sold foodstuffs for their profit. The government is also carrying out enormous deforestation in Malawi's forests, causing animals to die due to habitat loss.

During this crisis, William secretly continued to study and deepen his knowledge. Until he discovered a book called 'Using Energy,' which ignited his interest in physics. The book inspired William to build a windmill in his area.

With the limited materials, William looked for other ways to make it happen. In the end, William managed to build a windmill with recycled goods that he got from the junkyard. The windmill successfully works in routing water sources throughout Malawi and can save lives there. The windmill also opened public awareness about the value of science.

APPENDICES

A. Malawi's Environmental Conditions

No.	Corpus	Page	Chapter	Aspect
1.	<i>Malawi is a tiny nation in south- eastern Africa. On a map, it appears like a flatworm burrowing its way through Zambia, Mozambique, and Tanzania, looking for a little room. Malawi is often called "The Warm Heart of Africa," which says nothing about its location, but everything about the people who call it home.</i>	4	1	Geographical situation of Malawi
2.	<i>You might be wondering what an African village looks like. Well, ours consists of about ten houses, each one made of mud bricks and painted white. For most of my life, our roofs were made from long grasses that we picked near the swamps, or dambos in our Chichewa language. The grasses kept us cool in the hot months, but during the cold nights of winter, the frost crept into our bones and we slept under an extra pile of blankets.</i>	5	2	Malawi's environmental conditions
3.	<i>Most families in Malawi are farmers. We live our entire lives out in the countryside, far away from cities, where we can tend our fields and raise our animals.</i>	6	2	Profession and livelihood
4.	<i>Where we live, there are no computers or video games, very few televisions, and for most of my life, we didn't have electricity-just oil lamps that spewed smoke and coated our lungs with soot.</i>	6	2	Environmental conditions and lifestyle
5.	<i>Farmers here have always been and not '10od many can afford an education. Seeing a doctor is also difficult, since most of us don't own cars. From the time we're born, we're given a life with very few options. Because of this poverty and lack of knowledge, Malawians found help wherever we could. Many of us turned to magic-which is how my story begins.</i>	6	4	Poverty social situation
6.	<i>Since we didn't have electricity or television, the radio was our only link to the world outside our village. The same was true in many other parts of Africa. In most places you go, whether its deep in the forest or in the city, you'll see people</i>	46	4	Sources of information and media

	<i>listening to small portable radios. At the time, Malawi had two stations called Radio One and Radio Two, both run by the government. In addition to giving us the news and sports, they also played Malawian reggae music and American rhythm and blues, along with Chichewa gospel choirs and Sunday church sermons.</i>			
7.	<i>It's true that most people in Europe and America are lucky to have lights whenever they want them, plus things like air-conditioning and microwave ovens. But in Africa, we're not so lucky. In fact, only about eight percent of Malawians have electricity in their homes, and most of them live in the city.</i>	54	4	Underdeveloped state.
8.	<i>Not having electricity meant that I couldn't do anything at night. I couldn't read or finish my radio repairs. I couldn't do my homework or study for school. No watching television. It also meant that when I walked outside to the toilet, I couldn't see the big spiders or roaches that liked to play in the latrine at night. I only felt them crunch under my bare feet. Whenever the sun went down, most people stopped what they were doing, brushed their teeth, and went straight to bed. Not at ten p.m., or even nine o'clock- but seven in the evening! Who goes to bed at seven in the evening? Well, most of Africa.</i>	54	4	
9.	<i>The only lights we had were lanterns, and not the fancy kind that are powered by batteries. Our lanterns were made from empty powdered milk cans, which we bent closed at the top and filled with kerosene. Our wick was a piece of an old T-shirt, which we ripped into strips and soaked in fuel. Kerosene looks a lot like gasoline and smells just as bad. Worse, it produced thick black smoke that irritated our eyes and throats and made us cough.</i>	54-55	4	Source of light
10.	<i>Electricity does exist in Malawi, but it's very expensive and hard to get at your house. Getting "on the grid" involves squeezing in the back of a pickup-truck taxi and riding several hours to Lilongwe, the capital city. There you would catch another bus to the offices of Electricity Supply Corporation of Malawi (ESCOM) and wait hours in a stuffy lobby until the sour-faced agent called your</i>	55-56	4	Expensive electricity

	<i>name. "What do you want?" they might ask. "I would like electricity," you'd tell them. "Hmm. We'll see what we can do." After you'd fill out an application and paid a lot of money, they would ask you to draw them a map of your village and house. "That's me," you say. "I live here." And if your application got approved, and if the workers were able to find your home, then you'd have to ne more money for them to install a pole and wires.</i>			
11.	<i>My current school, Wimbe Primary, certainly didn't seem like a place where scientists come from. It was located down the wooded trail from Gilbert's house, just opposite the mosque. It was a community school sup- ported by the government, and the conditions were quite shabby. The iron sheets on the roof were full of holes, and when it rained, the water poured down on us. The rooms were too small for the large number of students, and some classes were held outside under trees. With all the trucks going past, plus the birds, insects, and people walking around, it was impossible to concentrate. The administrators didn't provide us with lesson books of our own. The teachers always ran out of chalk, and most students never owned a pencil. To spell their name, or give the sum of two times two, and they'll probably scribble the answer in the dirt with their finger.</i>	58	4	School situation
12.	<i>Another problem at Wimbe were the toilets-just a few grass huts with a deep hole covered with logs. It didn't take long for the termites to make their nests inside those logs and eat them hollow.</i>	59	4	Toilets and latrines
13.	<i>"This year will be a disaster." My mother's face seemed stricken. "Only God can help us," she whispered. After that, hunger came to Malawi.</i>	71	5	Ecofeminism
14.	<i>That evening when she returned, her hair was wild and her face full of worry. "They took almost everything," she said, and she was right. For supper, there were only crumbs.</i>	103	6	Ecofeminism
15.	<i>In addition to fetching water in Wimbe, my mother and my sisters routinely walked two miles to the small blue- gum forest near Kachokolo to cut down a</i>	233	13	Ecofeminism

	<i>bundle of thin trees-a chore that took at least three hours. This wood was still green, and burning it produced thick white smoke that poured from our kitchen windows. Looking inside, I'd see my poor mother stirring the pot of nsima, squeezing her eyes closed as tears ran down her cheeks. All the girls in my family developed nasty coughs each year.</i>			
16.	<i>In Malawi, this is every woman's burden. And I knew these journeys to find wood would only get longer and longer. Plus, the deforestation would only create more devastating droughts and floods.</i>	233	13	Ecofeminism
17.	<i>Ever since I'd built the windmill, women asked me, cook?" The "Does electric wind allow your mother answer was no. My windmill didn't supply enough volt. age to power a hot plate, much less an electric stove or oven.</i>	234	13	Ecofeminism
18.	<i>About a dozen people were gathered in his yard, talking in low, worried voices. They were mostly women, each wearing brightly coloured head scarves like my own mother, and carrying an empty basket. "Who are these people?" I asked. "They've run out of food in the far villages," Gilbert said.</i>	69	5	Ecofeminism
19.	<i>Without trees and forests covering the land, simple storms can turn into flash floods, whenever it rains heavily, the water rushes through our farms and carries away the important soil and minerals that help plants to grow. The soil-plus a lot of plastic bags and other garbage- washes into the Shire River, where ESCOM produces all of Malawi's electricity from turbines.</i>	57	4	Heavy rains and floods due to deforestation
20.	<i>Our district survived without much damage, except that after the rains finally stopped, they never came back. Malawi entered a drought.</i>	68	4	Drought
21.	<i>With no rain, the sun rose angry in the sky each morning and showed no mercy on the seedlings that had survived. By February, the stalks were wilted and bent toward the ground. By May, half our crop was scorched. The plants that remained were only as high as my father's chest. If you took one of the leaves in your hand, it would crumble to dust.</i>	68	4	Drought
22.	<i>One afternoon, my father and I stood in the field and studied this destruction.</i>	68	4	Anxiety about

	<i>"What will happen to us next year, Papa?" I asked. He let out a sigh. "I don't know, son. But at least we're not alone. It's happening to everyone." There was no celebration that harvest</i>			crop failure
23.	<i>Across Africa, it's an unfortunate companion of every rainy season. Many villages have poorly built latrines that flood with the rains and pollute the wells and streams where people drink. Blowflies also spread the bacteria</i>	128	8	Flood
24.	<i>So, in 2006, when it looked as if another famine was coming, people blamed magic. For weeks we'd gone without rain, then finally one day in March, giant storm clouds appeared in the distance. The sight of oily, black thunderheads was something to celebrate. "Look," people said. "Today we'll have rain!" "Finally, we're saved!" But as the clouds came overhead, a strong wind began to blow. It whipped the red dirt into our eyes and mouths and sent little cyclones tearing through the fields. Little by little, the storm drifted away without leaving a drop.</i>	239	13	Windstorm
25.	<i>The drought had destroyed all of the crops in the countryside, and the families in the smaller villages had run out of food. Their storage rooms were empty, and now they were hungry.</i>	70	5	Famine
26.	<i>But when I looked closer, I realized what the Mwales were eating-pumpkin leaves and stewed, green mangoes. They weren't even ripe, and I'm sure they tasted awful. "You'll find no food here," Mister Mwale said, wrinkling his nose as he chewed.</i>	71	5	Famine
27.	<i>Later, I saw several men digging ridges in Mwale's field for ganyu. They were from the outer villages, and each walked away carrying a handful of those same green mangoes.</i>	71	5	Ganyu dan famine
28.	<i>A few days later, my father started rounding up our goats to sell in the market. In Malawi, your animals are your most prized possessions, a farmer's only token of wealth and class. Now we were trading them for a few pails of maize. The men who ran the kanyenya stands selling fried meat had enormous power now. The prices they offered for goats, pigs, and cows went (lower each day, yet people</i>	73	5	Selling farm animals

	<i>still lined up to sell.</i>			
29.	<i>"Look," Charity said. "Is he dead?" We walk closer. Khamba was in the same position as when we'd left him. His head rested on his front paws, and his eyes were wide open. I gasped, expecting him, to move. Then I saw his year old sticking out. It was dry like paper and covered with ants.</i>	127	7	Animal
30.	<i>The police conducted all-night searches. Then one evening, they managed to corner the beast in a thicket and opened fire with their rifles... (p. 238). The next morning, the beast lay dead on the road-its single corpse bigger than a dog.</i>	239	13	Animal
31.	<i>The famine arrived at our door sooner than I imagined. our last pail of maize, giving us just twelve more meals as soon as she left, I opened the storage room and peered inside. All that remained were empty bags piled in a corner like dirty laundry. I tried to remember what the room had looked like when it was full, but I just didn't have the energy.</i>	78-79	5	Famine
32.	<i>But once the scorching sun rose in the sky, the hunger revealed itself in everyone. People suddenly appeared exhausted, as if they hadn't slept in days. The skin around their faces was shrunken and their eyes squinted against the hard light. It had probably been weeks since many had eaten a proper meal, and the government store was their last and only hope of survival. As the sun rose hotter, they grew more and more feeble.</i>	84	5	People conditions in the midst of hunger
33.	<i>In the days after Chamama, people started selling their possessions to stay alive... Women carried giant pots on their heads containing the items from their kitchen: cups, spoons, knives-everyday utensils of a normal life unhinged. Men lugged chairs and sofas on their backs. One man dragged a heavy dining room table through the mud. They were all headed for the trading centre to see how much money or maize they could get.</i>	89	5	Selling furniture
34.	<i>Because what good was a kitchen (table when you had no food to eat on it?</i>	89	5	Famine
35.	<i>"Well, William, this is not the proper uniform." I threw both hands under my arms to hide the yellow stains. But Mister Phiri was pointing at my feet. "Sandals</i>	107	6	The difficulty of fulfilling the

	<i>are not allowed," he said. "We require students to wear proper footwear at all times. Please go home and change." I looked down at my flip-flops, which had seen better Teu days. The rubber connecting the sole was broken on one of the sandals, forcing me to carry a needle and thread in my pocket for emergency repairs. I didn't have another pair of shoes at home.</i>			educational aspect
36.	<i>My worst fear had come true. I knew my father hadn't paid my fees, but who was I kidding? We were eating one meal per day. We couldn't afford to buy a bar of soap, much twelve hundred kwacha for my school. Walking less pay home, I got mad at myself for even getting excited and coming in the first place. I'd allowed myself a glimpse of the dream, and now it was crumbling all around.</i>	111	6	Drop out of school
37.	<i>The following week, the gaga finally ran out in the trading centre. People began living on pumpkin leaves, and when that was gone, they sifted through the garbage for banana peels and old corncobs. Along our road, they aus up tree roots and ate grass, anything to fill their stomachs</i>	114	7	Human condition against Famine
38.	<i>As starvation set in, their bodies began to change. Some people become so thin, they looked like walking skeletons. Others came down with kwashiorkor, a condition caused by the lack of protein.</i>	114	7	Famine
39.	<i>Some traders still spread their tarps in the mud and sold grain, but the units had become smaller and smaller, and its price was like gold, like buying the universe and stars in one half-kilo. Crowds gathered around, but mostly to stare in stunned amazement, as if watching a dream in heaven. Those with energy used it to scream and beg so their families might live. "Bwana, just a small plate of flour for my child. That's all I need. It's for my child."</i>	116	7	Socio-economy is getting worse
40.	<i>Two weeks after I buried my dog, cholera swept our district. Doctors said the sickness started in southern Malawi back in November. A farmer visiting a funeral brought it north, where it spread like grassfire. Within days, hundreds of people were sick and twelve had died.</i>	128	8	Cholera
41.	<i>Cholera is a highly contagious infection that causes severe diarrhoea. People</i>	128	8	Cholera

	<i>mostly get it by eating food or drinking water that's been contaminated with feces. After crawling out of toilets and landing on food.</i>			
42.	<i>The diarrhea that results in clear and milky and quickly leads to dehydration. If people aren't treated immediately, they could die.</i>	129	8	Diare
43.	<i>During the famine, people out looking for food became the unwitting carriers. The cholera struck them on the roads and forced them to become sick in the bush. Rain, flies, and cockroaches then spread the infection onto the banana peels, roots, and corn husks that others picked up to eat.</i>	129	8	Kolera
44.	<i>To combat the cholera, the clinic at the trading centre started giving away chlorine to clean our drinking water. For months it tasted like metal. They also advised families FE to cover the holes of their latrines to keep out the flies.</i>	129	8	Efforts to deal with cholera
45.	<i>"Fees for this term are due Monday," he said. "And those students who didn't pay last term's fees must also pay those without delay."</i>	166	10	Drop out from school
46.	<i>"Guys, I paid," I said, trying to be cool. "I just forgot receipt. . .I'll get it and come right back. Once outside, I began to cry, then I went home and told my father the news. "I've been expecting this," he said. "I just didn't know when" But instead of breaking my heart, my father went to see Mister Tembo and pleaded on my behalf. The tobacco would be ready in a few weeks, and after paying his creditors, my father was hoping against hope there'd be enough left to sell and cover my school. "I'll have the money soon," he said. "Just please let him stay."</i>	168	10	William's father pleads for his son's education
47.	<i>My father tried negotiating again with Mister Tembo, but Mister Phiri forbade me to return. He said that his boss, the Minister of Education, was visiting various schools to ensure that students were paying their fees. "If we're caught, we could lose our jobs." said Mister Tembo. I was sitting in the count yard when my father returned with the news. "I've done my best," he said, "but the famine took everything." He kneeled down to face me. "Please understand son. Pepani, kuwa mbiri. I'm very sorry. Your father tried" It was too difficult to look at him. "Chabwino," I said. "I understand."</i>	169-170	10	William was dropped out from school

48.	<i>My greatest fear was coming true: I would end up just like him, another poor Malawian farmer digging the soil. Thin and dirty, with hands as rough as timber and feet that knew no shoes. My life would forever be controlled by rain and the price of fertilizer and seeds-never by me. I would grow maize, and if I was lucky, maybe a little tobacco. And years when the crops were good and there was a little extra to sell, perhaps I could buy a new set of clothes. But most of the time, there would be hardly enough to eat. My future had been chosen, and thinking about it scared me so badly, I wanted to be sick. But what could I do? Nothing, only accept.</i>	171	10	William's resignation
49.	<i>In 2006, when I was eighteen years old, another famine struck Malawi.</i>	237	13	Famine struck in Malawi
50.	<i>By the time my dowe season arrived, most of the ears were deformed. The government quickly promised help, but in the meantime, people grew angry and scared.</i>	238	13	Severe famine

B. Human-nature Relationship According to The Main Character Illustrated in The Novel

No.	Corpus	Page	Chapter	Aspect
51.	<i>Part of the reason is deforestation, which is a real problem in Malawi and other parts of the world. Thanks to the tobacco and maize estates, most of the lush green forests that once covered the country back in Grandpa's youth are gone. The rest is being cut down and used as firewood. You see, since we don't have electricity, most Malawians (including my family) rely on fires for everything from cooking to heating bath water. The problem is that now the firewood is running low. It's so bad that sometimes my sisters have to walk several miles just to find a handful of wood to cook our breakfast. And if you've ever built a campfire, you know that a handful of wood doesn't last very long.</i>	57	4	Deforestation
52.	<i>As I mentioned earlier, deforestation in Malawi has made it difficult to find</i>	233	13	Deforestation

	<i>firewood for cooking, and gathering wood only adds to this destructive cycle. A good harvest of maize usually gave us enough dried cobs to burn for about four months. But once those were finished, the hunt for wood began.</i>			
53.	<i>My father's broken bike had ho leaning against the wall of the living room for over a vea- handlebars, collecting dust and dirty laundry. One day I finally gathered the courage to ask him if I could use it for my windmill. I sat him down and explained the entire process, how the bike frame would make the perfect body and be sturdy enough to handle strong winds. I described how the wind and blades would act as pedals to spin the wheel and power the generator. "Electricity!" I said, spreading my arms like a magician. "Water!" My father just shook his head. "Son, please don't break my bike. I've already lost so many radios. Besides, one day we'll use that thing."</i>	174	10	Ask William's father for a bicycle
54.	<i>Within minutes, a dozen people gathered at the base and gazed up at the machine. I recognized a few of them as traders and shopkeepers. One was named Kalino. "What is this thing?" he asked. Since there's no word in Chichewa for windmill, I used the phrase magesti a mphepp) "Electric wind," I answered. "What does it do?" "Generates electricity from the wind. "That's impossible," Kalino said, laughing. He turned to get a reaction from the crowd. "It looks like a radio tower, and what kind of silly toy is that?" "Well," I said, "just stand back and watch." "Let's see how crazy this boy really is," I heard someone shout.</i>	198-199	11	Underdevelopment of natural resources
55.	<i>During the famine of 2001-02, people blamed the corrupt officials who'd sold off our surplus. But this time, instead of acknowledging the weather, they blamed magic. And that meant blaming me.</i>	238	13	Blaming william
56.	<i>With nothing but the scorching sun left in the sky, people gathered at my house and pointed up to my windmill. The blades were spinning so fast, the tower rocked and swayed. bagoyany "Look, this giant fan has blown away the clouds. His machine is chasing away our rain!" "This machine is evil!" "It's not a machine-it's a witch tower. This boy is calling witches."</i>	240	13	Underdevelopment of natural resources

57.	<i>A few months later, some aid agencies arrived and offered more assistance. No one starved or died. A catastrophe had been avoided, but still, it underlined the kind of backwardness in our people that, really frustrates me.</i>	241	13	Underdevelopment of human resources
58.	<i>In December 2000, everything went terribly wrong. Our first problem was the fertilizer. For years and years, the Malawian government made sure the price of fertilizer and seed was low enough so every family could afford a crop. But our new president, a businessman named Bakili Muluzi, didn't believe the government's job was to help farmers. So that year, the price of fertilizer was so expensive that most families-ours included-couldn't afford to buy it. That meant when the rains came and the seed- lings pushed their way through the soil, we had nothing to give them. "Sorry, guys," I said as I stood in the field. "You're on your own this year." For those farmers who were able to afford fertilizer, it hardly mattered anyway. Because as soon as the seed- lings showed their tiny faces, the country began to flood. Heavy rains fell for days and days, washing away houses and livestock, along with the fertilizer and many of the seedlings themselves.</i>	67	4	Government behavior
59.	<i>A few days later, however, my father returned from the trading center, where a group of farmers had held a rally. They'd delivered some terrible news: A few dishonest men in the government had sold our emergency maize and taken off with the money. "They're saying there's nothing left," he told my mother.</i>	70	6	Government corruption

C. The Role of William in Solving The Problem of Malawi's Environmental Damage

No.	Corpus	Page	Chapter	Aspect
60.	<i>Why can't I touch the wall and get light? Why am I always the one stuck in the dark searching for a match?</i>	57	4	William's anxiety
61.	<i>For several months I stayed awake past dark and studied beside the smoky lamp. I spent hours reading over my lessons in Chichewa, English, math, social studies, and agriculture-a subject that we all had to take because we were</i>	59	3	William's struggle to study

	<i>farmers</i>			
62.	<i>What's this? I wondered. Pulling it out, I saw it was a textbook from America called Using Energy-and this book has since changed my life. The cover featured a long row of windmills, though at the time I had no idea what a windmill was. All I saw were tall white towers with three blades spinning like a fan.</i>	147	9	Using Energy book
63.	<i>"Let's find out." Energy is all around you every day," the book said "Sometimes energy needs to be converted to another form before it is useful to us. How can we convert forms of energy? Read on and you'll see."</i>	148	9	Inspirational words for William
64.	<i>People throughout Europe and the Middle East used windmills for pumping water and grinding grain," it said When many wind machines are grouped together on wind farms, they can generate as much electricity as power plant,</i>	148	9	William's inspiration
65.	<i>"If the wind spins the blades of a windmill," I said, "and the dynamo works by turning the pedals, these two things could work together." I remembered what the book had said about the dynamo: The movement energy is provided by the rider. "Gilbert, the rider is the wind!"</i>	149	9	William invents the windmill idea
66.	<i>And if I attached a wire to the dynamo, I could power anything, especially a lightbulb. All I needed was a windmill and I could have lights. No more smoky lanterns that left us with sore throats awake and hacking coughs. With a windmill, I could stay and read instead of going to bed at seven with the rest of Malawi. But most important, a windmill could also with most of Malawi still reeling from famine, a water pump water. pump could do wonders. At home we had a small, shallow well that my mother used for cleaning. The only way get that water was by bucket and rope. But if I attached a windmill and to that well, I could pipe water into dund our fields.</i>	149	9	William's dream of a windmill
67.	<i>My God, I thought. We could harvest two times per year, While the rest of Malawi went hungry during December and January, we'd be picking our second crop of maize could also allow my mother a year-round gar- The pump den to grow things like potatoes, mustard greens, and soy beans-both to eat and sell at</i>	150	9	William's dream

	<i>the market. With a windmill, we'd finally release ourselves from the troubles of darkness and hunger. A windmill meant more than just power. It was freedom. "Gilbert, I'm going to build a windmill." I'd never tried anything like it before. But I knew that if someone else could build them in Europe and America, then I could build one in Malawi.</i>			
68.	<i>But just as I'd feared, I was behind in everything: geography, agriculture, math, all the subjects I'd studied in the library. I struggled for the first two weeks, copying all the notes I could, while trying to get the hang of classes once again. It had been a long time, and so much had happened.</i>	165	10	William learns to hide in the library
69.	<i>"I have a plan! "I persisted. "Allow me to try. Just think, my Deen we could have lights! We could pump water and have an extra harvest! We'll never go hungry again. ear, perhaps you're right. But please don't mess it up."</i>	175	10	William's father allowed William to use his bicycle dynamo
70.	<i>All of my windmill pieces-the bicycle, tractor fan, shock absorber, and bearings-sat in a picture-perfect row, like in a museum.</i>	175	10	6R Practice
71.	<i>I saw them on bicycles everywhere, and most of the time they were broken, not even attached to a bulb. I'd think, God what a waste! Give it to me and I'll show you how to use it!</i>	184	10	William is frustrated because he doesn't have dynamo capital
72.	<i>The following afternoon, I began assembling the machine. I dragged the bicycle, tractor fan, blades, bolts, and dynamo outside and arranged them along the dirt. I'd chosen an area behind the kitchen, which doubled as my laboratory.</i>	187	11	6R Practice
73.	<i>Just then a strong gust flung me backward. The tower began to rock, so much that I wrapped my elbow around a rung just to hang on. Inches above my head, the blades began to buzz like a set of angry propellers. I clutched the bulb, waiting for my miracle. Then it came: a flicker, a flash, then a burst of bright, magnificent light. My heart nearly exploded. "Look!" someone shouted. "He's made light!" "It's true what he said!"</i>	200	11	Successfully to turn on the light

74.	<i>One by one, the people began to cheer. They waved their hands and shouted, "Wachitabwina! Well done!" "You did it, William!" "That's right," I said. "And now I'm going bigger! Just wait and see!"</i>	201	11	Successfully functioning windmill
75.	<i>And lights were just the first step. The next windmill would pump water for our fields and give us more food. Windmills would be our front line against hunger.</i>	206	11	Windmill development
76.	<i>1. Explaining Physics 2. Using energy 3. Integrated science</i>	227	13	3 books that inspired William
77.	<i>The first was a wide PVC pipe, which I used as my outer barrel. I placed it down the well until I felt it hit the bottom. The second pipe was metal and slightly thinner, perfect for my piston. Mister Godsten then welded a round metal washer to the end of the pipe and left its center hole open. Around the washer I attached a thick piece of tire rubber that acted as the seal. I then had Godsten bend the top of the pipe to make a handle. When the metal pipe was pushed up and down, it created a kind of vacuum inside the outer PVC pipe. When you pulled up, the water was sucked into the plastic pipe, and when you pushed down, the rubber seal opened and pushed the water to the surface, then out a small hole and into a bucket.</i>	232	13	Starting irrigation with windmill
78.	<i>Someone had to save our women and trees, and I thought, Why not me?</i>	234	13	William's love of nature
79.	<i>I connected both ends to a twelve-volt battery and felt it heat up. Soon the wire was glowing red-hot and the grass caught fire in my hands. It was a simple, kind of stupid experiment, but it really got me thinking: Maybe something like this could boil water. These kinds of coils existed already-I'd seen them in the trading center but they were powered by ESCOM electricity. I connected mine to a twelve-volt battery and dipped the coil into the water. In about five minutes, it was boiling.</i>	234	13	Making biogas fire
80.	<i>I walked them through the steps of how I'd built every- thing using everyday</i>	243	14	Inspirational

	<i>materials. "So many things around you are reusable," I told them. "Where others see garbage, I see opportunity." I hoped I was inspiring them in some way, because if I could teach my neighbours how to build windmills, I thought, what else could we build together? "In science we invent and create," I continued. "We make new things that can benefit our situation. If we can all invent something to make our lives better, we can change Malawi."</i>			William interviews and advice
81.	<i>"You have lights in your house because of your son," he said. "What do you think of this?" "We thought he was mad," my mother said.</i>	245	14	Visited by scientist.
82.	<i>During my holidays from school, I constructed a bigger windmill that pumped water, which I called the Green Machine on account of its colour. That pump now sits above the shallow well at home and irrigates a garden where my mother grows spinach, carrots, tomatoes, and potatoes, both for my family to eat and to sell at market. Finally, the dream had been accomplished. My family couldn't have imagined that the little wind- mill I built during the famine would change their lives in every way, and they saw this change as a gift from heaven.</i>	274	15	Make a bigger windmill
83.	<i>It was an incredible feeling to see the machines that I'd imagined for so long. Now here they were, twisting in the wind before me. I realized I'd come full circle. The pictures in the book had provided the idea, hunger and darkness gave me inspiration, and I'd embarked myself on this long and amazing journey.</i>	278	15	William looks at the American windmill that inspired him
84.	<i>Whatever I decided to do, this lesson would always stay with me: If you want to make it, all you have to do is try</i>	278	15	Inspirational William quotes