

UNIVERSITY OF EDUCATION, WINNEBA

**VISUAL FRAMING OF ENVIRONMENTAL SUSTAINABILITY: ANALYSIS
OF VIDEO COVERAGE OF ILLEGAL MINING IN GHANA ON YOUTUBE**



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202113837



**A thesis in the Department of Development Communication,
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in partial fulfilment of the requirements for the award of the degree of
Master of Philosophy
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in the University of Education, Winneba.**

DECEMBER, 2023

DECLARATION

Student's Declaration

I, Margaret Mary Eshun declare that this dissertation, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my original work, and has not been submitted, either in part or whole, for another degree elsewhere.

Signature:

Date:

SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Dissertation as laid down by the University of Education, Winneba.

NAME OF SUPERVISOR: DR. Akwasi Bosompem Boateng

SIGNATURE:

DATE:

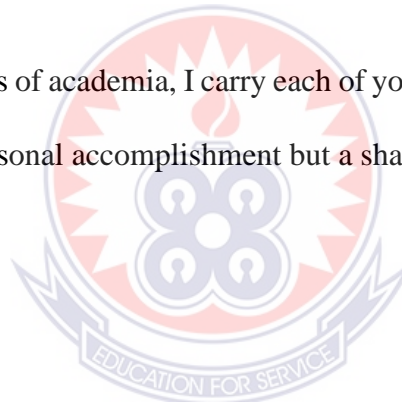
DEDICATION

I dedicate this research to my Francis Kofi Owusu and John Angelus Owusu Afriyie. Your unwavering support and love have been my guiding lights on this academic journey.

To my parents, Mr. and Mrs. Eshun, your sacrifices, encouragement, and values have laid the foundation for my pursuit of knowledge. Your belief in me has fueled my determination, and I am forever grateful for the roots you provided.

To my esteemed siblings, who have been steadfast companions throughout this journey, your camaraderie and understanding have rendered every step memorable. This achievement stands as a reflection of the collective strength inherent in our familial bond.

As I navigate the realms of academia, I carry each of you within my heart. This research signifies not only a personal accomplishment but a shared victory for our family.



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I am truly grateful for the opportunity to be part of such a distinguished academic community.

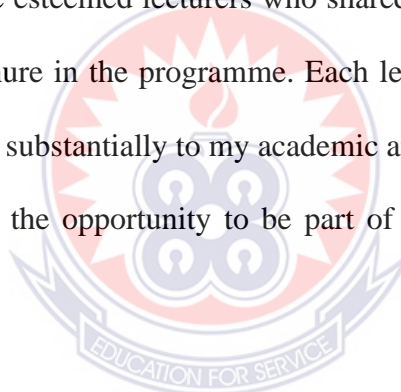


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ABSTRACT

The content including documents published on social media, could influence individuals' attitudes and actions toward environmental issues, such as galamsey. Given this, media outlets have key role in the fight against illegal mining activities especially in Ghana. With the widespread use of social media, these media outlets have also utilised social media platforms including YouTube, Twitter, Instagram and Facebook, among others in their efforts and campaigns to address environmental sustainability concerns. Despite this, there is notable inadequacy in media coverage of environmental issues, particularly regarding visual representations on platforms like YouTube. This study aims to bridge this gap by examining how environmental concerns, specifically illegal mining, are depicted on YouTube in Ghana, considering the country's substantial role as the primary gold producer in sub-Saharan Africa, entwined in global environmental discussions. This study analyses the videos and images published on a popular social media platform (YouTube) by two selected media outlets in Ghana focusing particularly on how their documents about illegal mining were visually framed during the fight against galamsey from 2017 and 2018. Underpinned by the visual framing and environmental citizenship theories, this study explores the way the issue of galamsey was conveyed by Citi News and Joy News were similar, even though they used different but related hashtags, keywords and captions to make meaning and disseminate messages about the menace to the public. The study found that the visual framing of the information about illegal mining influenced users to act as environmental citizens and tone of their comments to show support for the fight. Videos that showed various activities in galamsey could more likely provoke negative comments and testimonies from users. This study calls for improvement in the report and visual presentation of illegal mining activities online especially YouTube by the media outlets. However, there is the need for regulations to address issues regarding the spread of misinformed and disinformed videos which could magnify conflicts, tension and insecurity in mining communities.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

There are growing concerns and debates regarding environmental sustainability. According to the United Nations Educational, Scientific and Cultural Organisation (UNESCO) (1997), the media plays a significant role in appealing to audiences to act in sustainable ways towards the environment. Supporting this assertion, Cox (2013) noted that the increase in environmental communication promotes the urgency and, more specifically, the powerful role that images play in how viewers perceive the environment. Environmental communication “helps to construct or compose representations of nature and environmental problems as a subject for our understanding”. This implies that the media is an important tool for informing people about issues affecting them, including the environment (Cox, 2013; McLaughlin, 2010)

It is worth noting that industrialisation has resulted in global environmental degradation. For example, Ahutu (2015) reported that the increase in industrial activities has consequently polluted air, soil, and water bodies among others. According to the United Nations Environmental Programme (2016), environmental regulation and emerging technologies could reduce the environmental impact on industrialised countries. However, industrial activities and the production of goods and services continue to exert pressure on the environment and natural resources. The negative effects of the environment have an adverse effect on the ecosystem as the ecosystems are unable to withstand or recover from natural disasters caused by human activities (Attah, 2010).

Environmental degradation is an issue that draws global attention because it threatens the existence and survival of mankind (Singh, 2000). Given this, there have been many meetings and conferences reaffirming the importance of environmental protection and conservation. These include the World Conference on Climate Change, the World Bank's Meeting of the Parties to the Paris Agreement in 2015 and the World Economic Forum's Meeting of the Parties to the 2030 Agenda for Sustainable Development in 2015. These attempts have aimed at addressing global warming, climate change and greenhouse gas emissions, among others.

Environmental communication plays a critical role in issues and promotions of environmental sustainability. Like other countries, Ghana is not immune to issues of environment given its numerous natural resources and their concomitant challenges such as habitat destruction, overgrazing, deforestation and pollution, among others. There has been an increasing effect of climate change and environmental degradation which has generated global concerns regarding the environmental impact of mining (United Nations Environmental Programme, 2018; World Economic Forum on Mining & Metals Team, 2014). These concerns are critical, especially in places where there are numbers of artisanal small-scale mining activities in developing countries (Hilson & McQuilken, 2014; Hinton, 2005; Wall, 2013). Ghana is one of the high producers of gold in Africa with many people in mining areas engaged in small-scale mining activities. Artisanal small-scale illegal mining is one of the debated environmental topics in Ghana (Akabzaa & Darimani, 2001; Amankwah & Anim-Sackey, 2004; Amponsah-Tawiah & Dartey-Baah, 2011; Hilson & Banchirigah, 2009; Hilson & Potter, 2003; Owusu & Dwomoh, 2012).

Illegal artisanal small-scale mining activities popularly referred to as Galamsey in Ghana is a corruption of the phrase “gather and sell,” a term coined by the colonial masters after observing how gold was being easily gathered by natives using simple tools (Mantey, Owusu & Nyarko, 2017). Small scale mining is often categorized into two: legally registered operations and non-registered/illegal operations (Hilson & Mcquilken, 2014; Hinton, 2005; Wall, 2013). The categorization of small-scale mining into legal and illegal mining is, however, blurred because of the semblance in the operation of the two forms (Teschner, 2012). The arguments for and against galamsey as a livelihood strategy which is destructive to the environment have been blurred. While some actors argue for the regularisation and formalisation of galamsey because it serves as a major source of direct and indirect employment for millions of Ghanaians (Akabzaa & Darimani, 2001), some actors contest that because galamsey is unregistered and unregulated, which is poorly monitored by responsible authorities coupled with the use of crude equipment, it could lead to severe environmental consequences including water pollution (Armah, Luginaah, Taabazuing, Odoi, 2013) land degradation and loss of agricultural lands (Boateng Cudjoe & Ofori, 2014).

The effect of these activities in illegal mining has stimulated debates in public sphere in Ghana, especially in the lens of the media and politics. Several efforts such as the “Fight against Illegal Mining” and the “Operation Flush-out” among others have been deployed to curb the menace of galamsey (Tschakert, 2009a). In 2017, an Inter-Ministerial Taskforce “Operation Vanguard, was launched in response to the widespread #StopGalamsey campaign by Citi FM – a popular media house in Ghana. Other influential media outlets including international institutions joined the campaign and formed the Media Coalition Against Galamsey (MCAG). International organisations such as the British Broadcasting Corporation (BBC) provided funding

and support to those influenced by the Ghanaian media (Schiffrin, 2010). Such support re-emphasises the significance of the media in making sense of the world for society on issues affecting the environment.

The media play a critical role in shaping the views of people about environmental issues and environmental stakeholders through their representations, interpretations and evaluations. For example, Boykoff (2009) observes that the mass media coverage of environmental issues over time could promote a change in behaviours and attitudes towards the environment and governance. However there have been concerns as to whether achieving this goal prompting research in that regard. Several studies have attempted to establish the nexus between the media and public agenda with regard to environmental issues given that the media is an important source of information that can affect the perception and thoughts of people about the environment (Carvalho & Burgess 2005; Boykoff & Boykoff, 2004). In other words, public interest in environmental issues depends on the quality of coverage given by the media (Allan, Adam & Carter, 2000).

These discussions demonstrate the vital role of the media in addressing environmental problems by promoting sustainability because they can influence the way people think and behave towards the environment. The media through different forms serve as conveyors of public knowledge of environmental issues (Morgan, 1997). This implies that information people get about issues in the media posit it as a key conveyor of the public knowledge of environmental issues of the greenhouse effect, global climate change, ozone depletion, water, and air pollution, among others. In other words, messages about the environment come from the media or individuals who heard it from any of the various channels or forms of media.

Environmental issues are social-symbolic constructions of the environment as “something we know, at least partly, through language and other symbols” (Cox, 2013; Levinson, 2004). These meanings are often used to describe the ways in which society views environmental problems, and how they affect people’s lives. Among these symbols, images can have a powerful rhetorical effect because they can represent complex ideas that may be otherwise difficult to understand (Gold & Revill, 2004). According to Kitchell (2013, p.345-513), the “consciousness changer” with regard to the use of images in promoting environmental awareness was one of the first photographs of Earth from space. The juxtaposition of the blue and green Earth against the grey moon in illustration and representation helped viewers realize the importance of protecting the Earth (Kitchell, 2012).

Visual representation is a useful tool for environmental activists because it informs people about complex issues that are often difficult to appreciate and understand (Cox, 2013; O’Neill & Nicholson-Cole, 2009). The images used in environmental documentary films help in communicating and simplifying information, making messages memorable, condensing complex information, communicating concepts instantly, and providing a basis for personal thoughts and social interactions that contribute to people’s awareness and opinions about particular issues (O’Neill & Nicholson- Cole, 2009, p. 355). This implies that messages become memorable and invite audiences to understand environmental issues as well as raise awareness and persuade people to act in more responsible and sustainable ways through visuals, pictures or images.

One of the platforms that the media and individuals use in communicating many issues including environmental problems is social media. Social media platforms are avenues

through which people could access news and commentaries, and engage in debates without unnecessary control and intermediaries. A study by Pew Research Centre in 2016 found that 62% of adults in the United States of America get news from social media sites, with 18% accessing these platforms regularly (Gottfried & Shearer, 2016). “Social media employ mobile and web-based technologies to create highly interactive platforms via which individuals and communities share, co-create, discuss, and modify user-generated content” (Kietzmann et al., 2011; Nielsen, 2012). Social media refers to technology-facilitated dialogue conducted through platforms such as blogs, wikis, content sharing, social networking and social bookmarking (Reilly & Hynan, 2014) among others. These technologies and platforms have transformed communication to become an integral part of everyday life (McCay-Peet & Quan-Haase, 2017).

Social media platforms such as Instagram, Twitter, Facebook, and YouTube provide opportunities for the general public to discuss and share opinions instantly with vast cross-border networks. Given this, social media can be used to increase awareness effectively, generate discussion, and even prompt behavioural changes, all of which can influence environmental policies and programmes. For example, YouTube has become one of the preferred platforms where people especially the youth engage with others and watch videos due to its popularity and freedom in participation (Peer & Ksiazek, 2011). Most of the videos on YouTube last no more than two minutes (Peer & Ksiazek, 2011). With more than four billion videos viewed in a day, YouTube is the third most visited website worldwide, and has more than 72 hours of videos uploaded to it every minute (PWC, 2012, 2014, 2015). This is because YouTube serves as both a source of information and creator of visual memes (Pew Research Center, 2012; Smith & Joffe, 2012; Xie, Natsev, Kender, Hill, & Smith, 2011; Xu, Park, & Park, 2015). The discussions above highlight how YouTube could be useful for science and

environmental communication given that it allows for not only passive consumption but information exchange and engagements by the users, which promotes the building of communities and dialogues with various audiences (Erviti & Stengler, 2016). Furthermore, it could also highlight the importance of video in creating awareness about environmental issues and promoting social change by using videos to educate people on environmental issues.

1.2 Statement of the Problem

Environmental sustainability has gained much attention on a global scale due to its symbiotic relationship with the media (Lester, 2010; Cox, 2012). The media sustain their operations by picking novel issues, which in turn expose those issues, for example, deforestation, and climate change, among others to the public for discussions and analyses (Lester 2010; Cox 2012). In other words, the media help the public and audiences to make sense of environmental issues. In Ghana, illegal small-scale mining or ‘galamsey’ operations have taken a large-scale dimension, leading to the destruction of the environment and water bodies (Agbesi, 2017). As Agbesi (2017) notes, illegal mining strips Ghana of some 28 billion tons of raw materials from the earth. ‘Galamsey’ activities can be explained against the backdrop of chronic poverty and mass unemployment facing young adults in communities in Ghana (Agbesi, 2017).

Given the role of the media in addressing environmental issues, they are recognised as very critical in environmental communication and campaigns against sustainability challenges especially related to destruction of land resources (Boykoff, 2015). However, there are concerns about inadequate reportage by the media on environmental issues (Boykoff, 2017), which could contribute to failure to achieve the result against environmental problems. Despite that, research on environmental issues and

communication about the environment is scant as there are only few studies, such as Brüggemann and Engesser (2017); Carmichael and Brulle (2016); Carmichael, Brulle and Huxster (2017); and Swain (2012), that explore how different forms of media communicate and address environmental issues. For example, some studies (Boykoff, 2007; Swain, 2012) reported on how different media outlets, especially newspapers and television, have been used in covering climate change and environmental issues. The study by Swain (2012) found that the media often frames climate change mitigation as a dynamic and contested issue within intersecting realms of policy, science, and the public. The commonality among the various studies of the coverage of environmental issues is their focus on oral and written rhetoric as compared to visual images. This suggests that studies that examine visual rhetoric have largely focused on television and print media (Nissani, 1999; DiFrancesco & Young, 2010).

The situation is not different in Ghana, where there is increasing concern about environmental issues, especially 'galamsey' in communities nationwide. This brings the discussion of the role of the media in addressing the illegal mining menace into consideration. More so, there is little research on how environmental sustainability is communicated through the media, especially on social media platforms. Pomary's (2016) studies on illegal mining in Ghana focused on the Daily Graphic using a quantitative approach. The findings of the study were that photographs used to accompany news stories were scant. Also, Kpaienbaareh, Kansanga and Liginaah, (2020) studied the role of the media in the fight against illegal mining using textual analysis. While some research activities have been conducted to interrogate the role of videos on other platforms, these studies have rarely focused on visual framing of environmental sustainability and illegal mining issues in Ghana, particularly, on YouTube. Given the prominence of discussions and debates on illegal mining and

environmental degradation in Ghana, it is necessary to examine how such important issues are framed on YouTube. The 2022 report of Stat Counter Global Stat, noted that there were 23.05 million internet users in Ghana as at November 2022, and YouTube users topped the chart with 34.14 % against 24.62 % Facebook users.

More so, as Ghana has been diversely framed in global environmental issues such as illegal mining, the country represents an interesting case to be explored. This study, therefore, addresses these lacunae by exploring how environmental issues particularly illegal artisanal small-scale mining (galamsey) is visually framed by two reputable media outlets in Ghana on YouTube in the lens of the visual framing theory. This study performed searches on YouTube because it is one of the popular social networks across the world which has millions of users (Clement, 2019). To be able to achieve this purpose, this study addresses the following research objectives.

1.3 Objectives

1. To identify the issues around which Citi News and Joy News covered illegal mining in Ghana on YouTube
2. To explore the multimodal elements used to communicate the issues of illegal mining in the selected videos by Citi News and Joy News on YouTube.
3. To investigate how illegal mining was visually framed by Citi News and Joy News to issues relating to illegal mining activities in Ghana on YouTube.

1.4 Research Questions

Flowing from the research objectives, the following fundamental questions are posed:

1. What are the issues around which illegal mining was covered by Joy News and Citi News on YouTube?

2. What are the multimodal elements used to communicate the issues of illegal mining in the selected videos?
3. How was illegal mining visually framed by Joy News and Citi News on YouTube?

1.5 Significance of the Study

The study will throw more light on environmental communication practices especially reportage of illegal mining in the media space in Ghana, which will bring to the fore how the media frames environmental issues using social media platforms to influence the attitudes and behaviours towards the environment. The media including social media are powerful information and advocacy tools that play a critical role in facilitating knowledge in society. Therefore, the study of the role in addressing environmental problems and building sustainability through visuals on social media and the concomitant effects on the way people reason and behave. The findings of this study will address the gap in literature and knowledge in an area that is under studied in Ghana by examining how the media particularly Joy News and Citi News visually frame illegal mining on YouTube as an exemplar of social media. The findings contribute to how such frames can create environmental awareness of complex environmental issues including illegal mining. The recommendations of this study can assist the media, policy makers, students and researchers in addressing environmental issues and research that seeks to address the menace of illegal mining in Ghana.

1.6 Scope of the Study

Environmental issues in Ghana are many hence, it is difficult to address all of them. Therefore, this study is focused on YouTube videos that cover artisanal illegal small-scale mining activities in Ghana. The study focuses on Citi News and Joy News and their videos on illegal mining over a period. It uses the hashtag stop galamsey by Citi

news and Joy News to collect data on YouTube from 2017 to 2018. These two media outlets are selected because they played a key role in the campaign against gamamsey, coupled with their popularity and wide listenership followership and visibility in Ghana.

1.7. Organisation of the Study

This thesis is made up of five chapters. Chapter One presents the background including key concepts; statement of the problem; research objectives; research questions; the significance of the study; scope of the study and organisation of the study. The Second Chapter provides a review of literature, which makes exhaustive analyses of literature in the research area of environmental communication, social media and sustainability, among others. It also presents the theoretical framework for the study, and identifies the lacuna in the literature that this study seeks to address. The Third Chapter deals with the research methodology, which involves the methods and materials used for this study. It outlines sampling techniques, procedures, and equipment employed in data gathering and analysis. The chapter also indicates the research design and ethical issues, among others. The Fourth chapter provides findings of the research. It presents and discusses the findings of the study in relation to literature and theory to make interpretations and conclusions. The Fifth chapter consists of the summary of findings, conclusions, and recommendations. The key research findings are itemised and their contribution to knowledge are highlighted. Suggestions for future research have also been made in this chapter. Sources cited in the research and miscellaneous information are listed in references and appendices.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

In this chapter, literature related to environmental communication, sustainability and social media among others is reviewed. The theories underpinning the research are discussed and situated in the context of the study in relation to the findings. The visual framing and environmental citizenship theories are analysed in relation to illegal mining and social media. The chapter starts with a review of environmental issues especially illegal mining in Ghana, which is followed by discussions on social media and environmental reporting with particular emphasis on YouTube, among others.

2.1 Global Environmental Issues

According to Gore (2006), environmental issues are global in origin and need collective action to resolve them. Evidence from science has revealed that ecosystems are under unprecedented pressure, threatening prospects for sustainable development (Elliot, 2012). Welford (1998) indicates that humankind uses a large percentage of the planet for primary productivity. Samalisto (2007) states that people are using the earth's resources faster than they can be renewed. Samilisto (2007) further adds that in addition to these problems and their adverse effects, there is the greenhouse effect, global warming, and global climate change, which have captured the attention of the whole world at the moment. Burgess (1990) observes that the accumulation of greenhouse gases, mainly carbon dioxide, is irreversible for periods covering hundreds of years. Burgess (1990) also notes that global environmental problems like deforestation, global warming, and pollution of water bodies are public evils and have a globally negative effect on the economy, causing multiple costs to society.

In less developed countries, natural resources are the spine of the economy and provide the life support system for most people (Ploeg, 2011). The majority of the population in these countries directly depend on the environment for their livelihoods and are particularly vulnerable to the effects of environmental change. Over the past three decades, in many countries of the world, the environment has continued to deteriorate and poverty has increased despite attempts by governments to try to halt and reverse degradation (Ajeyalemi, 1998). These problems are likely to intensify over the next three decades as the population continues to grow and the climate becomes more variable (Ekaete, 2001). To help curb the spread of these environmental problems, Morgan (1997) noted that a significant amount of the public's knowledge of environmental issues is likely to come from the media. Morgan (1997) further postulates that much of what people hear about issues such as the greenhouse effect, global climate change, ozone depletion, water pollution, air pollution, and other environmental threats including illegal small scale artisanal mining is likely to come from the media (or from others who have heard it from the media) since our first-hand knowledge of the state of the environment is likely to be minimal. This re-emphasised the significance of the media in addressing environmental issues.

In view of this, many studies have been conducted to investigate how various forms of media communicate environmental issues globally (Ahn, 2018). The research on Climate Change and the Media in 2009, for example, examined how diverse kinds of media throughout the world express climate change problems (Gillings & Dayrell, 2023). Some studies reported on how different media outlets for example newspapers and television news in the United States, have been unsuccessful in effectively reporting on climate change (Boykoff, 2007; Swain, 2012) because the media "often frames climate change mitigation as a dynamic and contested issue within intersecting realms

of policy, science, and the public" (Swain, 2012, p. 162). As a result, many people tend to tune out media coverage of environmental issues that are well presented from a scientific, political, or business perspective (Nissani, 1999; Swain, 2012).

Other studies (Bell, 1994; Nissani, 1999; Swain, 2012) have found that viewers disconnect from environmental news coverage due to errors in reporting and lack of balanced news coverage (Boykoff, 2007). The concentration on oral and written rhetoric, with apparently less attention paid to the visual, is shared by these studies and others investigating audience reception in relation to a specific type of media. Nonetheless, certain research looks at visual rhetoric for example, Nissani (1999), investigated visual rhetoric and perception of the greenhouse effect. However, this study was limited to printed pictures. On the other hand, DiFrancesco and Young (2010) examined the photographs in two national Canadian newspapers, The Globe and Mail and The National Post. DiFrancesco and Young investigated the mix of pictures and text, claiming that "photos alone... do not give the complete narrative" (p. 524), which this current study attempts to ascertain.

Environmental communication visuals may have a strong, compelling influence on viewers (Cox, 2013). Swain (2012 p. 169) asserts that pictures "tend to be more powerful than reasoning or explanation inside a media text", Swain (2012 p. 187) stressed that pictures frequently "connect to individuals' everyday emotions and worries in the context of climate change problems". In other words, visuals are important in raising awareness about environmental issues because they can reduce "complexity by providing interpretative frames or narratives that selectively blend fact and emotion, which suggests that visual imagery potentially has a strong role in public understanding of environmental issues" (DiFrancesco & Young, 2010, p. 518). From another angle

Smith and Joffe (2012, p.18), for example, asked participants to express their ideas or sentiments about global warming and discovered that participants' initial impressions matched the dominating imagery reported in the British press, such as "melting ice caps, stranded polar bears, and flooded landscapes", among others.

Other research looks at visual media as a standalone mode of communication. One piece of research, particularly, looked at Time Magazine coverage from 1923 to 2011 to see how environmental concerns were shown and how frequently this occurred (Meisner & Takahashi, 2013). The study discovered that the number of environmental-related issues covered grew throughout the last decade of their investigation. However, Meisner and Takahashi (2013) noted that, while Time Magazine seemed to have understood the seriousness of environmental concerns for its coverage, the arguments presented in the magazine were poor, offered few answers to readers, and used disengaging visual imagery. Other research looked at images used by activists in their campaigns (Cozen, 2013) as well as images used to justify the development of fossil fuels (Takach, 2013), among others. Ventura, Frisio, Ferrazzi, and Siletti (2016) note the scarcity of research on visual communication. In addressing such gap, Ventura et al (2016) did research that examined the kinds of photos returned by Google search on genetically modified organisms, assessing the images displayed and the order in which they appeared. Ventura et al (2016) discovered that the first page of Google search results frequently revealed more frightening content. Peeples (2013) investigated visual representations of the chemical Agent Orange in news and popular media during and after the Vietnam War, while Barnett (2015, p.405) investigated the visual rhetoric of "toxic pictures".

On the other hand, Linder (2006) explored advertising visual depictions of climate change. While Remillard (2011) investigated a photographic article in National Geographic Magazine on the Canadian oil sands, focusing on how environmental danger is communicated via pictures and the tensions between the notions of nature-as-sublime and nature-as-resource. Remillard (2011) contends that visuals related to environmental risk may not alter people's awareness and motivation to act based on a study of the images. These studies, although studying static pictures, do not precisely analyse the many types of visual rhetorical modes or participants' responses. Some research takes into account the reactions of participants. Covi and Kain (2016) performed research with participants in the regional and local documentation of six coastal communities in the United States to assess their comprehension of sea-level rise danger. Many of the materials in the research were in print, and the pictures were made up of graphs and maps, which most participants found difficult to read and understand. The printed photographs utilised in this investigation might be classified as scientific (for example, illustrations, charts, graphs, maps). Sarge, VanDyke, King, and White (2015) investigated the visual framing of hydraulic fracturing, as well as participant comprehension of the process and whether or not they supported the technique. Smith and Joffe (2012), as earlier mentioned, asked participants to report their ideas and feelings regarding global warming, but they did not particularly evaluate the different types of rhetoric utilised or how participants reacted to different visual rhetorical forms. On the other hand, O'Neill and Nicholson-Cole (2009) investigated how still images depicting terrifying scenes of natural environmental destruction affected participants in terms of how they personally connected to the images and whether or not participants were motivated to act in more eco-conscious ways. Participants in this study were found

to be "fearful, dejected, afraid, or concerned by the notion of climate change" (O'Neill & Nicholson-Cole, 2009, p. 369) that was depicted.

Many studies in environmental communication have investigated the use of pictures, but they have frequently concentrated on print image analysis rather than examining visuals on social media. Research on how the media visually frame environmental issues is needed. As noted, studies relating to science and environmental communication on YouTube is still under-researched (Allgaier, 2018; León & Bourk, 2018). Similarly, Welbourne and Grant (2015) indicate that it is difficult to find studies that have specifically investigated science and environmental communication on YouTube. One area of research that is lacking in environmental communication especially in Ghana is the examination of visuals used in mining issues on YouTube. This justifies the need and relevance of this study as an attempt to address the gaps discussed by different scholar from different perspectives. To address this research gap, this study explores visual frames of illegal mining in Ghana on YouTube using a qualitative approach to contribute to the debate and knowledge regarding the subject under discussion.

2.2 Environmental Concerns in Ghana

As indicated early on, Ghana is not immune to issues regarding the environment. There have been concerns about the negative effects of human activities on the environment in Ghana. Over the years there have been concerns in respect of air, plastics and water pollution that affect health and hygiene; mining, unmanaged solid waste, and contaminated sites release hazardous chemicals; land degradation, deforestation and overfishing which heavily impact livelihoods and limit drivers of growth (Loftus, 2015). According to the recent World Bank Ghana Country Environmental Analysis

(CEA) (2020), environmental degradation costs \$6.3 billion annually, or about 11% of Ghana's 2017 Gross Domestic Product (GDP). There is the assertion that non-renewable resources such as gold and oil cannot sustain growth as resources deplete, while renewable resources such as cocoa, timber, and food crops also depend on good environmental stewardship to sustain (Srivastava & Pawlowska, 2020).

According to the Ghana Environmental Protection Agency's annual report in 2020, there is inadequate understanding of the concepts and terminologies used by scientists to discuss the issue of environmental management and policies, especially on climate change and harmful chemicals, which has made individuals less concerned about environmental reportage (Environmental Protection Agency, 2020). This is contrary to situations in other contexts where concerns about environmental issues are extensively discussed at the global level (Anand, 2013). For example, Kemp's (1994) discussed the impact of various activities on the global environment and human responses to such interferences where urgent issues, policies and activities and other matters related to the environment and capacity building are required to address these problems identified (Jaenicke & Weidner, 1997). Environmental issues have sparked debates which have consequently resulted to the development of models to communicate and educate people about the global environmental challenges including the ozone layer depletion, greenhouse effects, land degradation, mining, atmospheric and marine pollution, among others (Boyes & Stanisstreet, 1997; Moomen & Dewan, 2017; Bekwet, 2003; Meetham, Bottom, & Cayton, 2016; Bergin, West, Keating, & Russell, 2005; Molina & Molina, 2004; Jacobson & Jacobson, 2002; Elsom, 1992).

Some studies in Africa have been done to analyse the menace of illegal mining in countries endowed with mineral resources. According to Hilson (2001) the extraction

and processing of these precious mineral, especially gold and diamond have supported livelihoods of many indigenes in these countries and Africa. These small-scale mining industries have made important contributions to foreign-exchange earnings (Hilson, 2001). However, the activities of illegal miners who exploit resources have led to environmental degradation and impoverishment of many people among others in these mineral-rich countries (Hilson, 2001).

Many of these studies have focused on waste management. Some researchers such as Boateng, Amoako, Appiah, Poku, and Garsonu (2016) have analysed environmental issues in Ghana particularly solid waste management. Some empirical evidence have also been gathered from Amoah and Kosoe's (2014) work that studied solid waste management in Ghana's metropolitan areas which addressed concerns and experiences from Wa, while Samwine et al. (2017) also investigated the potential challenges in respect of solid waste management in Ghana. Fianko, Donkor, Lowor, and Yeboah (2011), Asante and Ntow (2009), Adomako and Ampadu (2015), and Omari (2014) have explored the concerns about the impact of agro chemicals on the environment in various contexts. specifically, Asante and Ntow (2009) examined the state of environmental contamination in Ghana, while Adomako and Ampadu (2015) investigated the impact of agricultural practices on environmental sustainability in Ghana, as well as farmers' understanding of the impacts of pesticide usage on the environment and human health (Omari,2014).

Considering the studies reviewed, there has been minimal attention devoted to issues of illegal mining as a recent environmental concern in Ghana, which this study is carried out to address and contribute to the body of knowledge, research and understanding of illegal mining and environmental issues in Ghana. This study is especially significant

because scholars such as Eshun (2017) highlights that Galamsey activities have resulted in the destruction and degradation of vegetation, arable lands, and the environment, as well as polluted water bodies in Ghana. The pollution of water bodies in Ghana has affected the availability of potable drinking water for members in communities around mining sites (Agbesi, 2017) which re-emphasises the exigency of this research.

Agbesi (2017) mentions that blasting during mineral extraction destroys soil organisms, and disrupts stable soil aggregates, eventually depriving the soil of organic matter. Agbesi (2017) in his work adds that surface mining accounts for approximately 58% of the Western Region's deforestation, 45% loss of farmland, as well as spillover effects from expanding mining activities in reserved forests. More so 'Galamsey' is a death trap for miners and unsuspecting farmers within the mining communities, because they sometimes find themselves trapped into deep uncovered mine pits (Serfor-Armah cited in Eshun, 2017). Given these, the urgency to address such menace and concomitant issues is eminent. According to Biney (2013) the media in Ghana, could effectively conscientise, sensitise and educate the citizenry to speak and act strongly against the 'galamsey' activities in their communities (Oduro-Mensah, & Biney, 2013). Despite their bottlenecks, the current activism and relentless fight against 'galamsey' in Ghana has been advocated for by media practitioners in collaboration with the Government of Ghana, to address the water pollution and environmental degradation challenges created by 'galamsey' activities. This study contextualises and analyses the work of media, regarding issues of the environment and visual framing of illegal mining in Ghana on social media particularly YouTube to influence users and viewers of reports and videos on the platform to act responsibly towards the environment as environmental citizens to promote safety.

2.3 Social Media

The term “social media” (SM) was first used in 1994 on a Tokyo online media environment, called Matisse (Bercovici, 2010) It was in these early days of the commercial Internet that the first social media platforms were developed and launched. Over time, both the number of social media platforms and the number of active users have increased significantly, making it one of the most important applications of the Internet.

In research, social media is generally used as an umbrella term that describes a variety of online platforms, including blogs, business networks, collaborative projects, enterprise social networks (SN), forums, microblogs, photo sharing, products review, social bookmarking, social gaming, social network video sharing, and virtual worlds (Aichner & Jacob, 2015). As of January 2020, there are more than 110,000 publications with the term “social media” in their title and many researchers have provided varying definitions of social media sometimes using alternative terms interchangeably.

Social media is not universally understood because of its rapid evolution and variety of delivery platforms. For example, Drury (2008, p.1) defines social media from a practical standpoint as online platforms that people use to share content, such as video, photos, images, text, ideas, insights, humour, opinion, rumours, and news. On the other hand Kaplan and Heinlein (2010) define social media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, which allows the creation and exchange of user-generated content”. This means that social media is not just about sharing information but connecting people to one other. The term social media also refers to web-based services that allow individuals, communities, and organisations to collaborate, connect, interact, and build community

by enabling them to create, co-create, modify, share, and engage with user-generated content that is easily accessible (McCay-Peet & Quan-Haase, 2017, p.17).

According to Burgess & Poell (2017), social media technologies are those online services, platforms, and applications that were created with the goal of combining content sharing, interpersonal connection, and public communication. Email, instant messaging, video conferencing, and other modes of communication have all been presented by various scholars as examples of social media, and how these technologies have been used to connect with one another. The functionality of the software is the main focus of each of the aforementioned definitions. However Miller, Sinanan, Wang, McDonald, Haynes, and Costa & Nicolescu (2016) made a significant divergence from this approach when they suggested that social media should be viewed largely as the contents that are uploaded on these platforms rather than the platforms themselves. In general, social media could be summarized as computer-mediated communication software that enable users to create, share and view content in publicly networked one-to-one, one-to-many, and/or many-to-many communications.

While the phrase "social media" refers to a wide range of online platforms with diverse features, communication methods, and sociability purposes, there are some traits that all social media applications inherently have in common. These commonalities, according to Mayfield (2008) include participation, openness, dialogue, community, and connectedness which are the defining traits that underpin the functioning of all social media. Participation can be defined as "the extent to which senders and receivers are actively engaged in the interaction as opposed to giving monologues, passively observing, or lurking" (Burgoon et al., 2000, p. 36). In a context, participation can be seen as action-oriented interactivity between senders and receivers of information and

messages on the platforms. On the other hand conversationality is a central theme of social media which unlike participation that is situated behavior/action-oriented interactivity, is rooted in the communicational aspect of interactivity. The next social connectedness may be defined as interpersonal, community, and general social ties established on social media platforms (Teixeira, 1992, p. 36). Considering the concept as a type of relational scheme, Lee and Robbins (1998) characterised social connectedness as a pattern of active and trustful interpersonal behaviors. Another feature of social media is its accessibility to user criticism and engagement, as there are minimal obstacles to information access or commenting (Mayfield, 2008). The networking mentality and functionality of social media and the availability of simple tools for content creation and sharing among users improve the openness quality. Individuals particularly the younger generation, share details of their lives on social media platforms like Facebook, Flickr, and Twitter, while businesses utilise corporate blogs to disseminate information and solicit input, which provides proof of openness.

2.4 Environmental Reporting

The concept of Environmental Reporting in Journalism comes from Environmental Communication. In his book 'Environmental Communication and the Public Sphere', Cox (2009) defines environment communication as an application of how individuals, institutions, society and the culture form, encode, decode, comprehend, and employ the message about the environment itself; and the symbols between human beings and their environment. As an area of practice in journalism, environment journalism involves collecting, verifying, producing, distributing, and performing the most recent information which are closely related to various occurrences, intention, issues and society. It is also related to the interaction between non-human-beings and human beings regarding the environment. According to the Centre for Federal Judicial and

National Research Council (2011), environmental reporting is the presentation of unbiased scientific information about the environment which is accessible to non-technical audiences. To Lacy and Coulson (2000), environmental journalism entails the presentation of ideas, information and results regarding the environment.

Similarly, the National Wildlife Federation defines “environmental journalism as the reporting of events, trends and issues related to the environment. It encompasses the natural systems of the earth including plants, animals, habitats, ecosystems, atmosphere, water, climate, among others, along with the interdependence and interaction of humans and environment” (Khatun & Chaudhuri, 2021). Environmental news reporting is an important aspect of journalism that has become increasingly relevant and important in recent years due to the growing concerns over environmental issues.

A study by Carvalho and Burgess (2005) examined the role of environmental news reporting in shaping public opinion and found that media coverage had a significant impact on public understanding of environmental issues. The study also highlighted the importance of journalists in providing accurate and comprehensive coverage of environmental issues. In another study, Anderson and Hinckley (2013) analysed the content of environmental news stories in the United States and found that stories were often framed in terms of conflict and controversy rather than in terms of potential solutions or actions that could be taken to address environmental problems. The study suggested that there was a need for more constructive and solution-focused reporting on environmental issues. This is why this current study seeks to ascertain whether the sampled media outlets in Ghana are reporting about the menace of illegal mining in Ghana in that regard.

A study by Kovach and Rosenstiel (2007) examined the challenges faced by environmental reporters, including the difficulty of reporting on complex scientific issues and the challenges of obtaining accurate information from sources with competing interests. The study suggested that environmental reporters needed to be highly skilled in order to navigate these challenges and provide accurate and balanced coverage of environmental issues.

In a more recent study, Schäfer and Schlichting (2014) analysed the role of environmental news reporting in shaping public opinion on climate change in Germany. The study found that media coverage had a significant impact on public attitudes towards climate change and suggested that environmental reporters had an important role to play in shaping public opinion and promoting environmental awareness. Overall, these studies highlight the importance of environmental news reporting in shaping public opinion, promoting environmental awareness, and holding governments and corporations accountable for their actions. In doing this work, environmental reporters face many challenges, including the difficulty of reporting on complex scientific issues and the need to provide accurate and balanced coverage, given their work as essential for promoting responsible environmental practices and addressing the pressing environmental issues confronting our planet.

Environmental news reporting has been an important aspect of journalism in Ghana that has gained significant attention in recent years. Ghana, like many other countries in Africa, faces a range of environmental challenges, including deforestation, air pollution, water pollution, and climate change. Several media outlets in Ghana have dedicated sections or programmes to environmental news reporting. For example, the Ghana Broadcasting Corporation (GBC) has a weekly programme dubbed "Our

Environment," which covers various environmental issues in the country. Other media outlets such as Citi News and Joy News also regularly report on environmental issues including galamsey activities. However, despite these efforts, environmental news reporting in Ghana faces some challenges. For instance, some media houses prioritise political news over environmental news, which limits the coverage of environmental issues. Additionally, there is a lack of resources and training for environmental reporters, which affects the quality and accuracy of reporting ().

Furthermore, the government's response to environmental challenges in Ghana has been slow, and some environmental reporters face harassment and intimidation for reporting on these issues. In some cases, reporters have been threatened and physically attacked for exposing environmental violations and degradation activities by individuals, companies and government officials. This implies that while there are some efforts to promote environmental news reporting in Ghana, there is still the need for greater attention and support for this area of communication and journalism. This includes close collaboration between the media and the government to ensure that environmental issues and challenges like galamsey are adequately covered and represented in ways that promote environmental citizenship, as well as secure that environmental reporters are protected from harassment and intimidation.

2.5 Social Media in Environmental Reporting

The expanding role of social media in environmental communication means that environmental reporters can disseminate information and interact with citizens without hitches (Sasu, 2020). Although there is no evidence that social media has taken the place of traditional media in environmental communication, traditional media coverage is extensively documented and debated on social media (Enli, 2017). It is also known

that image-driven social media platforms provide materials for the traditional media outlets (Turnbull-Dugarte, 2019), hence their usefulness in communicating about the environment. Ghana's media landscape has tremendously changed from the traditional way of reporting to the use of social media. Radio and television were the primary sources or perhaps the most-used sources of news among Ghanaians with about 500 authorised radio broadcasting stations (National Communications Authority, 2017; Government of Ghana, 2018). Social media has now become an essential platform for engagements, especially among the youth and the educated class, not only to keep themselves connected virtually but to keep public officials in check (Gyimah-Boadi, 2018) about different issues and policies on different activities including mining.

The internet, or more specifically the websites on the World Wide Web, is continuously changing because of technological developments. One of these information sources that has revolutionised the world is social media. Many More internet users spend lots of time on social media websites to send, receive and interact with others (Kaplan and Mazurek, 2018). Social media are online platforms on which user-generated content can be shared. Facebook, Twitter, WhatsApp, and YouTube are popular and broadly used examples of these participative platforms (social media) in which users can read and post different types of content with no or perhaps little control.

Nowadays, the public increasingly gets science including environmental news online, particularly via social media platforms such as Twitter, Facebook, or YouTube (Brossard, 2013). For example, some people in the United States cite the Internet as their primary science, environment and technology information source (National Science Board, 2016).

Similarly, social media has redefined how Ghanaian's access information, which has opened doors and avenues for a better distribution of content and wider reach of audience. Social networking sites including Facebook, Twitter, YouTube, Blogs, LinkedIn, Google Plus, WhatsApp, Telegram and smart phone applications, as well as news delivery sites; and other online platforms are widely used in Ghana. As of January 2020, Ghana registered approximately six million active social media users, up from 5.8 million in 2019 with WhatsApp as the most popular platform in use (Sasu, 2020). This high penetration and use of social media make these platform very suitable for the distribution of information. Consequently, social media and other digital tools have become as important as traditional activism tactics (Costanza-Chock, 2014; Harlow & Harp, 2012). Environmental activists around the globe now rely on social media in the execution of campaigns and advocacy. For example, Uzoechi (2014) suggested that citizens and non-governmental organisations' active use of social media, particularly blogs, brought pluralistic views on the discussion of oil drilling and environmental issues in the Nigeria Delta. Similarly, in the case of anti-Lynas, a protest against an Australian mining company which intended to open a refinery in Malaysia, Kaur (2015) noted how non-governmental organisations' strategic use of social media played a vital role in creating awareness and informing the public about the hazardous rare earth mining, which led to a thorough investigation of Lynas' activities. Kaur (2015) further argued that social media is "a great leveller and a democratic force that has opened up a new realm for wider public participation on social issues, especially in countries where traditional media is controlled by the ruling establishment" (Kaur, 2015, p. 311). This highlights the unique commonalities of social media and their impact on communication and reporting of significant issues.

In other studies, Hodges and Stocking's (2016) analysis of tweets concerning the proposed Keystone XL pipeline project found that the anti-Keystone XL group not only actively engaged with supporters through links and retweets, but also heavily (re)tweeted action and identity reinforcing-oriented content. Moreover, the pro-Keystone group relied on Twitter as much as the anti-Keystone group did (Hodges & Stocking, 2016), illustrating the role of social media in other campaigns that may not be necessarily pro-environment. While these studies indicate the ability of social media to prompt discourse and strengthen identity, Merry (2014) found that during the Gulf of Mexico oil spill in 2010, the majority of tweets sent by environmental groups were non-interactive in nature, and the limited interactivity on Twitter did not lead to effective results. These studies highlight the importance of social media activities, be it sharing, liking, or commenting, in contemporary environmental communication. In other words, the studies demonstrate the multi functionality of these platforms, be it for engagement and interaction or for the purposes of delivering passive information about the environment.

Social media have come to play an important role in environmental activism (DeLuca, Brunner & Sun, 2016). For example, in 2007, after the local government of the city of Xiamen approved the construction of a multi-billion-dollar paraxylene (PX, a toxic chemical product) project, citizens used social media to organise a protest that brought 15,000 demonstrators to the streets. The protests helped in the eventual suspension of the PX project (Liu, 2013; Li, Liu, & Li, 2012). This protest remains one of the few opposition that successfully led to policy changes in China (Liu, 2013; Xiao, 2011). Similarly, in 2013, the Chinese citizens used Weibo to petition for air quality transparency (Atkin, 2014; Kay, Zhao & Sui, 2015).

The successes were as a result of the use of these platform to depict and promote images of the consequences of implementing environmental policies and activities detrimental to the citizens. According to Walter and Gioglio (2014) telling a story with compelling visuals cuts through the clutter on social media, attracts attention, and conveys a story quickly, making viewers more receptive to reading the accompanying text (Brubaker & Wilson, 2018; Chung & Lee, 2019; Powell et al., 2015; Walter & Gioglio, 2014). . This study, however, uses social media to examine the frames used in reporting illegal mining in the posts by two media outlets (Citi News and Joy News) on social media especially YouTube.

2.6 YouTube as a Platform for Environmental Communication and Representation

The media have noticed the attitudinal and behavioural influence of visual social media platforms such as YouTube, Instagram, Snapchat and Pinterest on citizens, as they have adopted these platforms to reach wider groups to increase their credibility using different framing tactics (Muñoz & Towner, 2017). As one of the most popular visual-centred platforms of social media, environmental discourses are present on YouTube, as well as other kinds of media, ranging from television, films, books, newspapers, magazines, and radio. (Luedecke & Boykoff, 2017). A remarkable exemplar of Web 2.0 is YouTube, which has become the biggest online video platform worldwide (Gautier, 2019; Welbourne & Grant, 2016). For example, in 2019, approximately two billion people logged onto the YouTube platform monthly (Gautier, 2019). As part of Web 2.0, YouTube distributes User Generated Content which has paved the way for the development of the so-called “YouTubers”.

YouTube is the second largest search engine in the world, with over 80 percent of users located outside the United States. Every day, one billion hours of YouTube video content is watched (Aslam, 2018). It has been described by various sources as a platform archive, library, medium, laboratory, modern-day bard, and storyteller for the digital age, and source of modern-day mythology (Kavoori, 2015). Burgess and Green describe YouTube as an ‘almost incomprehensibly large and highly diverse archive of video content’ (2018, p. 14). Burgess et al. (2018, p.22) define YouTube as mainstream media which has helped to redefine what “professional media” looks like a platform for amateur and professional production and distribution which is experienced in diverse ways by ‘different users.’

YouTube is a popular source for scientific information and other issues, such as technology, entertainment and environment. While web-based textual information requires high levels of reading to understand, the video format of YouTube is more user-friendly, as well as innovative and creative, using visual and audio channels for transmitting text, images, animations, and films (Allgaier, 2019). Therefore, science popularisation is no longer an activity exclusively reserved for professional communicators or scientists, employed by the main stream media, but also carried out by passionate amateurs (Welbourne & Grant, 2016). Nevertheless, even when it seems to be a powerful tool for education and scientific and environmental communication (León & Bourk, 2018), this area still remains an under-researched topic in the context of YouTube (Allgaier, 2019).

As a global platform for communication and journalism, YouTube offers a plethora of content and news channels (Sumiala & Tikka, 2013). In addition to providing diverse news content, it suggests videos for viewers to watch based on a subject topic relating

to previously watched materials. YouTube also plays a key role in mediating video content through its algorithm ranking of top results. As Rieder, Matamoros-Fernández, and Coromina (2018, p. 63) demonstrate in their study of the visibility of YouTube search results, YouTube's search function is designed to highlight what the authors call "newsy" moments, thereby changing search results from day to day. Reider et al. (2018) also point to how recommendations and subscriptions influence search ranking, with the platform privileging 'channel subscriptions as a means for content creators to build and address an audience' (p. 63). Briones, Nan, Madden, and Waks's (2012) study of Human Papilloma Virus (HPV) vaccine coverage on YouTube, shows how the YouTube discourse on controversial subjects can shift relatively quickly, demonstrated by an increasingly negative tone in both user-generated videos and viewer responses. However, while YouTube is often conceived of as a place for non-professional producers, that is, amateurs or "ordinary users", to create and upload their own content, Burgess and Green's (2009) study of the most popular videos on YouTube revealed that a large amount of content originates from corporate users ("big media" companies in film, music or television, or web-TV companies).

Welbourne and Grant's (2015) study of the characteristics of the most viewed videos about science on YouTube also concludes that professionally generated content is superior in number. In many cases, the journalistic material published on YouTube is repurposed from traditional media news sites. Television news and current affairs production follows conventions with long-standing expectation of high production values and aesthetics. Peer and Ksiazek's (2011) content analysis of 882 journalistic news videos and reports on YouTube showed that approximately half of the examined videos were repurposed from traditional news media sites. It also showed that the news videos produced specifically for YouTube adhered to traditional journalistic production

practices (picture and sound quality, editing techniques, among others.) but diverted from ‘common content standards’ (Peer & Ksiazek, 2011, p. 45), for example how they use sources and/or in their approach to fairness. Peer et al. (2011) study demonstrated that repurposed news videos from other mediums (such as television news and current affairs programs) adhered to traditional and institutionalised journalism and reporting standards in both production approach and content elements. As such, those videos can be considered in similar ways to video journalism published or reported on traditional news channels.

Environmental issues such as climate change and illegal mining have not received extensive attention in research related to science and environmental communication on YouTube. For example, a recent review on climate change in social media (Pearce et al., 2018) has focused on Twitter and large-scale quantitative textual approaches. Pearce et al., (2018) argue that future work should embrace smaller-scale studies, especially qualitative approaches, and the inclusion of visual platforms, such as YouTube or Instagram because they have been understudied. In other words, only little is known about how environmental topics are addressed with regards to online video platforms, such as YouTube, despite their global popularity in particular reflection to illegal mining activities especially in Ghana.

2.7 Illegal Mining

Several pieces of research, especially case studies have been done in analysing the menace of illegal mining and its impact on the environment, people, and country where abundant mineral resources are located. For decades, the extraction and subsequent processing of these precious minerals especially gold and diamond have been the means of livelihood for many indigenes located communities in these endowed countries.

These grassroots industries also made important contributions to foreign-exchange earnings (Hilson, 2001). On the other hand, the activities of illegal miners exploiting these minerals have led to serious environmental degradation and impoverishment of several other indigenes in these mineral endowed countries (Hilson, 2001). These have raised concerns and agitations to address the menace of illegal extraction of resources. Hilson, Hilson, and Adu-Darko (2014) mentioned that in the many studies conducted in Ghana on illegal mining, academic literature, and media reportage seemed to focus particularly on the environmental impacts of Chinese-infiltrated galamsey activities. Drawing on findings from interviews with key stakeholders, the study interrogates many of the claims presented in the local Ghanaian media about galamsey even though it did not include any research finding on media reportage of illegal mining activities. It is obvious that investigating how the media has reported illegal mining activities and whether the media reportage has given enough attention to illegal mining with frames to influence change which has not been the target of many studies is timely and important.

In Ghana, Armstrong (2008) reports that gold mining has extensive history that dates back at least to the 15th century when the Europeans, the Portuguese followed later by the Dutch and English, were drawn to the territory they referred to as “Gold Coast” because of its trade in gold and spices. The British and a small number of other foreign investors controlled the mining industry during the colonial age as Ghanaians were excluded from the tenure structure of the mining industry. The industry was very vibrant during the pre-independence period, thus Ghana accounted for 35% of total world gold output between 1493 and 1600(Armstrong, 2008). Nevertheless, Ghana’s portion of world mineral output declined over subsequent years. The post-independence period was marked by state ownership of mineral resources.

The period up to 1986 of the industry was largely characterised by unproductivity, except for a few spikes recorded immediately after independence and in the early 1970s (Akabzaa & Darimani, 2001). As part of Ghana's Economic Recovery Program (ERP) launched in 1983, the mining industry experienced substantial reforms beginning in 1986. Since 1983, Ghana has been experiencing World Bank/International Monetary Fund sponsored Structural Adjustment Program (SAP). Furthermore, Aubynn (2003) reported that modern mechanised mining of precious metals from both alluvial and hard-rock dates back to about 1880 which began in the Tarkwa area. In 1898, modern mining was extended to Obuasi in the Ashanti Region, where the gold deposits were found to be even richer than the Tarkwa deposits. AngloGold Ashanti's Obuasi Mine, which began production in the Adansi West District of the Ashanti Region in 1890, which is by far the oldest mine in the country (Armstrong, 2008). It is worthy to note that activities of small-scale mining are commonly done on the immediate surface or near-surface deposits, comparatively with little waste or overburden, simple metallurgy, and with easy access (Armstrong, 2008).

In many cases, as indicated by Hilson (2001), galamsey entails the use of mercury for processing. In the view of Berger (1982), the activity is characterized by: one-man operations; various forms of leasing where miners either share the profit from the concession or sell the minerals to the owner of the concession at an agreed price, joint-venture ship, and cooperatives, limited labour with wage payments, distribution and sales usually involving middlemen who in turn sell to the world market. Hentschelet al. (2003) conceptualised artisanal and small-scale mining as mining by individuals, groups, families or cooperatives with minimal or no mechanisation, which is usually done in the informal sector of the market. For the purposes of taxonomy, small scale miners are artisanal miners who are licensed to operate on a small piece of land and

who are required to market their produce through the Precious Minerals Marketing Company (PMMC) or designated agents associated with PMMC and illegal miners (Nyame & Grant, 2014).

On the other hand, small scale miners, practice their trade without any regularisation or license from the regulatory agencies (Nyame et al, 2007). In the study of Brayan (2010), two kinds of small-scale mining are mentioned that is land dredging and river dredging. Artisanal Small Scale Mining activities can be subdivided in the same way, as conventional mining, according to type of deposit: underground mining; open pit mining and placer mining (Kumah, 2022). In addition, some small mining operations may have a semi-industrial or fully industrial character and the degree of mechanisation, internal organisation and compliance with international industrial standards is advanced. These operations are most frequently financed and managed by partners from industrialised countries (Hentschel et al, 2003).

In many parts of the world, artisanal or small -scale mining activities are as important as large-scale mining activities, particularly in terms of the numbers of people employed because number of miners are generally unskilled and earn little. The most common equipment used in small scale mining are basic hand tools such as picks, axes, sluice boxes and shovels, although occasionally water pumps, explosives and washing plants are seen in their operations within regions (Hilson, 2001). Small scale mining can generate significant local purchasing power and lead to more demand for locally produced goods and services such as food, tools, equipment, housing, infrastructure (Hentschel et al. 2003). Artisanal and small -scale mining is the case in the majority of developing countries that have such resources. The quick growth in Ghana's artisanal and small-scale gold mining sector can be attributed to the acute lack of jobs and

accompanying poverty issues (Hilson & Potter, 2005). The Artisanal Small Scale Mining sector is challenging industry to regulate due to the nomadic and often seasonal nature of their activities (Nyame & Grant, 2007), which have attracted the attention and reportage by the media in Ghana.

2.8 Illegal Mining and Media Reporting

The link between effective media coverage and economic development is illustrated by the level of coverage of the extractive sector particularly the mining industry (Schiffrin, 2009). From varied experiences in Africa, the wealth from the extractive sectors poses challenges for African governments (Media Council of Kenya, 2015). According to Schiffrin (2009), the media does not only expose wrongdoing but can also help to decide and prioritise development policy by pursuing relevant issues on the agenda for public discussion as well as covering topics in a way that educates the public and policymakers. In other words, the media help societies to decide how they want to approach certain developmental questions (Shiffrin, 2009).

Based on this, journalists should be able to undertake objective writing regarding illegal mining using balanced sourcing, incorporating in-depth research, and proper article structure (Media Council of Kenya, 2015). Journalists can fulfil their oversight role only through informed analysis and reporting, high-quality and thoughtful commentary, and investigative efforts. This requires good reporting skills; understanding technical issues; and being accessible to relevant information from experts. In this way, the media can effectively play its fundamental role in spreading knowledge about, raising awareness and highlighting potential flaws in the mining industry. To this end, media practitioners and journalists need to understand the sector's technicalities as well as the economic and political implications of management decisions.

Moreover, journalists need to help the general public make sense of the figures and the technical details in an accurate, impartial, transparent and independent way (Dyke,

Nash, Redd & Sukkarieh, 2014). The widespread of illegal mining, especially in Ghana provides the urgency for journalists to do investigative reporting on the extractive sector. This is because there are many concerns, many issues including corruption and bad practices, where countries fail, for example to maximise the full value and benefits of their resources and/or when the revenues raised are not used for public good. There are more complex stories, demonstrating how well-intentioned actions can have unintended adverse effects. Such reporting is necessary if the media is to fulfill the role of the watchdog, which is particularly needed in this complex and often opaque industry (Schiffrin & Rodrigues, 2014).

As a whole, Ghana media's coverage of the mining industries, for example the illegal mining menace, has been noted as unimpressive. (Colmery et al., 2009). Colmery et al. (2009) further argued that, the media coverage of the issues is generally insubstantial and skin-deep. In the view of Colmery et al. (2009), different perspectives on the extractive industries are offered, for example, but rarely do articles engage the totality of the issues at hand or evenly present both pro and con arguments. In-depth investigative articles, crucial to monitoring illegal mining activities is lacking in terms of transparency, which are simply not being written (Colmery et al, 2009). Like most other African countries, Ghanaian media coverage of the extractive industries could be limited (Canonge, Purcell, & Behrman, 2010).

However, it must be noted that news stories about how illegal mining destroy the environment are important to fight against illegal mining menace. Based on this limited analysis, this study argues that the Ghanaian media coverage of the illegal mining activities in the sector could do a much better job in covering the challenges on the mining industry, which is vital to Ghana's economic development.

Usually through news frames, the media provide information and impart knowledge to the public, which in most cases influence the opinion and decision of the public

(Dimitrova & Stromback, 2005; Ofori-Birikorang, 2010). According to Chilisa (2012), Hallahan (1999) and Shah (2002), framing depicts how issues are portrayed in the news media and how messages are encoded with meaning so that they can be easily interpreted in relationship to existing ideas.

With the myriad of problems posed by illegal small-scale mining in Ghana, the media have become the first point of call in gaining information with regard to the activities of these miners. How the media present such issue has a great potential to influence public perception and government. For example, with regard to Chinese citizens working in illegal mines Ghanaian small scale mining industry, the media reportage fuelled public outcry that eventually led to the repatriation of several Chinese immigrants (Hilson et al., 2014). Framing does not mean that journalists spin their stories to deceive their audience. However, framing deals with the way complex issues of illegal mining are presented and broken into comprehensible way for it to work on the cognition of the audience.

2.9 Theoretical Framework

This section provides discussions on theories that underpin this study. The study is hinged on the visual framing theory to describe how the visual frames of environmental issues, particularly galamsey in Ghana, could make citizens and the public proactive to the environment. Despite the fact that images play an important role in media and environmental communication, research on framing has traditionally focused on textual content.

2. 9.1 Visual framing

The theoretical framework is visual framing. The concept of framing was first posited by Gregory Bateson in 1972. Erving Goffman defines a ‘frame’ as ‘definitions of the

situation that are built up in accordance with the principles of organisation which govern event at least social ones and our subjective involvement in them' (Goffman, 1974). This means that the purpose of framing is 'to select some aspects of a perceived reality and make them more salient in a communicating text to provide definition(s) for problems, causal interpretation, moral evaluation, and/ or treatment recommendation for the item described' (Entman, 1993, p. 52). Ofori-Birikorang (2018) offers a similar view that the media in performing their functions have consciously or unconsciously enacted a pattern of reportage that involves the active selection of some issues and making them more salient.

Geise (2017) defines visual framing as the process of choosing certain aspects of a perceived reality and emphasising them more than others through the mode of visual communication to increase their salience and meaning. This suggests that visuals promote the specific "attributions, interpretations, or evaluations" of an issue or item which is described (Geise, 2017). Rodgers (2017) adds that the constructs in the minds of news consumers are more directly activated and influenced by information targeted at them through visual frames, which highlight some components of issues over others (Rodgers, Kenix & Thorson, 2007). Geise (2015) further explains that Visual framing represent the visual elements in an image and how these elements are related to each other within the image.

Visual framing is a form of framing analysis (Coleman 2010). Drawing on Entman's (1993, p.52) definition of framing, Coleman (2010) describes visual framing as the "selection of one view, scene, or angle when making the image, cropping, editing, or selecting it" (p. 237) which "selects some aspects of a perceived reality and makes them more salient in a communicating text, in such a way as to promote a particular problem

definition, causal interpretation, moral evaluation, and/or treatment recommendation" (p. 235). Visual materials often come along with the texts, while frames communicated in texts and visuals may not always align. According to Coleman (2010 p. 237) "it is never enough to study framing in one mode of communication and not the other". Instead, researchers must adopt a multimodal framing approach that acknowledges and investigates how text and visuals align, conflict, and/or are intertwined (Coleman, 2010). Against this backdrop, this research attempts to study the visual frames given to issues of illegal mining by two selected media outlets (Citi News and Joy News) in Ghana on YouTube as an exemplar of social media used in important environmental issues to communicate to the public.

Rodriguez and Dimitrova (2011) provide a common framework for visual framing analysis, which distinguishes between four levels: visual framing as denotative systems, stylistic-semiotic systems, connotative systems, and ideological representation. The first level entails the *concrete objects* or *elements* that are shown in the image (Rodriguez & Dimitrova, 2011). In other words, denotative systems focus on the outright visual display of the objects or elements within an image without interpretation. For example, O'Neill (2013) found that climate change imagery in the news media often depicted politicians and smokestacks. These elements are explicitly identifiable and intended to direct viewers' attention to specific topics or issues.

The second level involves *stylistic conventions* and *their social meaning*, such as cultural understandings of colours or camera position (Rodriguez & Dimitrova, 2011). This level depicts how the style of an image and semiotic elements of an image add meaning to the picture. This involves aspects such as colour, composition, and symbolic gestures that create meaning to the viewer of the image. For example, depicting

refugees as full shots of large groups rather than close-ups with recognisable faces, visually framed migration as a national security threat rather than a humanitarian challenge (Bleiker et al., 2013).

The third, *connotative or conceptual level*, entails the ideas or concepts that are conveyed, which can be identified by analysing symbols and metaphors (Rodriguez & Dimitrova, 2011). For example, conceptual aspects could entail whether climate change is framed as a psychologically distant or close phenomenon, or as a risk or opportunity.

The fourth level involves the *ideological representation* that is portrayed. This is the highest level that deals with the ideology an image promotes, and how it works to sustain the power dynamics inherent in an image. It discusses how visual components convey some kind of information about philosophical worldviews or messages of political values. For example, an image depicting Ghana's small-scale mining activity might depict patterns that evoke ideas about the interests that are served, the voices that are heard, and the ideas that dominate (Rodriguez & Dimitrova, 2011).

Some studies like Ballejo, Plaza and Lambertucci's (2021) scheme of classification of videos according to frame indicated that visuals, especially, videos and pictures can be categorised into four, such as: (i) negative (ii) Positive (iii) Close psychological distance, and (iv) Distant psychological distance. The negative case embodies pictures that arouse negative emotions such as fear, sadness, and anger among others. These images often focus on negative factors like conflicts and disaster conditions to produce intense emotions from viewers to accentuate issues to address as a matter of urgency. The positive case includes visuals that will provide positive emotions like joy, optimism, or pride. Pictures in these hook lines are usually about successes, parties, and anything nice to create positive vibes for the audience. The third case images that

generate the feel of closeness with the viewer. They often use face shots, holding of eye contact or elements of plots that relate to the audience's everyday life. The last case explains images that have a feeling of distance or remoteness as far as the observer is concerned. These images are usually depersonalised or showing situations very remote to the life of the viewers.

Others have applied a multimodal approach to studying visual framing analysis of various topics such as climate change and migration (Hellmueller & Zhang, 2019; Wozniak et al., 2015). For example, in their visual framing analysis of Cable News Network (CNN) and Spiegel Online's coverage of refugees, Hellmueller and Zhang (2019) utilised the four-tiered model and applied denotative system, stylistic-semiotic system, connotative system and ideological representations. Other scholars suggest the integration of structural features into the stylistic-semiotic perspective in visual framing analyses (Coleman, 2010 & Dan, 2018).

In examining the role of YouTube in reporting and representing illegal mining in Ghana, this study draws on the framework of Rodriguez and Dimitrova's (2011) visual framing to address the research objectives and questions regarding the frames and visual coverage given to illegal mining on YouTube by the two selected media outlets in Ghana. By using the visual framing theory, this study can discuss the images that the news outlets (JoyNews and CitiNews) depict about illegal mining (galamsey) in Ghana on social media, specifically YouTube, to their audiences and the public. In other words, visual framing enables this study describe how illegal mining activities and environmental issues are framed in the media, especially social media platforms in Ghana, to encourage the public to be environmental citizens for responsible attitudes and behaviours to the environment.

2.10 Summary

This chapter reviewed literature and studies in respect of illegal mining, media reportage, visual framing, among others. It analysed the key concepts in the study and how theories selected for the study were applied to provide the basis for discussing the findings and conclusion. The next chapter provides details on the methodology including methods, design, instruments and data analysis, among others.



CHAPTER THREE

METHODOLOGY

3.0 Introduction

The chapter sets out the research methodology that is used to address the objectives and questions in the study. It provides information on the methods, approach, participants, design, instruments, sampling techniques, procedures and equipment used in data collection and analysis, among others. The choice of methods and their implications in the study are rationalised.

3.1 Research Approach

The research approach is a plan and process that consists of steps from general assumptions to detailed methods of data collection, analysis, and interpretation (Olivar, 2015). A research approach is a way of looking at things, which is mainly the product of the researcher's philosophical, theoretical, and methodological perspectives. According to Givens (2008, p. 238 - 239), it is the guiding compass, which directs the course of the study among all the research going on in this field.

Creswell (2014), research approach comprises strategies and methods for research that extend the decisions from general assumptions to thorough methods of data gathering and reasoning. The three common approaches to conducting research are quantitative, qualitative, and mixed methods (Creswell, 2014). The quantitative method, according to Creswell (2014) involves the processes of collecting, analysing, interpreting, and writing the results of a study. It refers to a set of strategies, techniques and assumptions used to study psychology, social, and economic processes through the exploration of numeric patterns (Coghlan & Brydon, 2014).

Mixed methods research combines quantitative and qualitative approaches by including both kinds of data in a single study (Halcomb & Hickman 2015). Mixed methods research allows the researcher to build on the relationship and strength that exists between quantitative and qualitative research approaches (Halcomb & Hickman 2015). This allows for the phenomenon that is being researched to be better understood.

This study moves away from quantitative or mixed method research in that it employs purely qualitative methods of data collection and analysis to make meaning of data, which is consistent with Shank's (2002) definition of qualitative research as, "a form of systematic empirical inquiry into meaning" (p. 5). In systematic terms, Shank (2002) alludes to the qualitative research process being "planned, ordered and public," pressing home the idea of following rules agreed upon by members of the qualitative research community. Considering it from the empirical perspective, Shank (2002) means that this type of inquiry is grounded in the world of subjective experience. This experience is accessible through a planned, ordered inquiry to make the obvious evident, the dubious obvious, and the hidden obvious (Patton, 1990). This implied confirming what is already supported by data, questioning what the researcher thought he knew, and giving new insights and relevant things that were not known but should be known. Denzin and Lincoln (2000) claim that qualitative research involves an interpretive and naturalistic approach. This means that qualitative researchers study things, attempting to make sense of, or to interpret, phenomena from multiple possible perspectives (Denzin & Lincoln, 2000).

According to Creswell and Creswell (2018), qualitative research approach provides complex textual descriptions of experience, and that is what this current research seeks to do by engaging and scrutinising media images using a case study. To Creswell

(2014), qualitative research provides the means to organise and interpret the data on images and videos, without losing the richness and individuality. The findings may provide a basis for effective intervention targeted as specific issues identified. Also, qualitative research seeks to establish meanings by studying a phenomenon to provide answers through thick rich description backed by evidence and rationalisation (Creswell, 2014). Bhandari (2023) adds that qualitative research involves collecting and analysing non numerical data (example, text, video, or audio) to understand concepts, opinions, or experiences. This understanding is like Lichtman's (2013) which also describe qualitative research as the method of unfolding the implicit language and the tool for analysing the data.

Observations, one-on-one interviews, focus groups discussions, ethnographic, phenomenology, and grounded theory are some examples of methods that could be used in the qualitative research approach (Khan, 2014). Observation is one of the oldest qualitative methods of research, which is used to collect systematic data using subjective methodologies (Howitt & Cramer, 2010). It is based on five primary sense organs that is smell, sight, taste, touch and hearing, and their functioning (Agapito, Mendes, & Valle, 2013). Interviews are the most common type of qualitative research method which involves open-ended conversation between researchers and participants who are related to a particular subject (Charmaz & Belgrave, 2012). This method is used to gather in-depth qualitative data for the research purpose. In this context, the researcher asks pre-determined questions to the participants to collect specific information about their research topic. Interviews can be conducted via face-to-face, email, or phone. The drawback of this method is that sometimes the participants feel uncomfortable sharing honest answers with the researcher.

Similarly, focus group discussion involves collecting qualitative data by conducting a group discussion of six to twelve members along with a moderator related to a particular subject. The moderator asks respondents a set of predetermined questions so that they can interact with each other and form a group discussion. It helps researchers to collect rich qualitative data about their market research. However, it is essential to ensure that the moderator asks open-ended questions like “how,” “what,” “why” that will enable participants to share their thoughts and feelings.

Ethnography is a descriptive type of qualitative research that deals with people and their culture. This method aims to study individuals’ behavior in their natural habitat. The researcher lives with the target audience, acts as an observer, and gets involved with their environment. By doing so, they get first-hand experience of motivation, goals, challenges, lifestyle, culture, and tradition of the individuals.

Grounded theory is another data collection method of qualitative research used across various disciplines (Charmaz & Belgrave, 2012). This method aims to provide the reasons, theories, and explanations behind an event. It focuses on why a course of action has happened the way it did. The grounded theory model collects and analyses the data to develop new theories about the subject. The data is collected using different techniques like observation, literature review, and document analysis.

Phenomenology is another qualitative research example that describes how an individual experiences or feels about a particular event. It also explores the experience of a specific event in a community. In this context, the researcher interviews people who have experienced a particular event or phenomenon over time to discuss the similarities and differences between their experiences.

As mentioned, this current study adopts a qualitative approach to explore the phenomenon of visual framing with respect to media outlets (Citi News and Joy News) in Ghana of illegal mining on social media. Videos relating to illegal mining posted by Citi News and Joy News on YouTube are qualitatively analysed to address the research objectives and questions in the study. The qualitative approach has been productive in many different contexts including ethnographic studies, socio-cultural studies, and anthropology. This research uses the qualitative approach because it is very useful when conducting case study to understand how the media uses social media to convey information. The qualitative approach allows for a more flexible way to obtain data that is important or necessary in terms of focusing on the critical issue under investigation (Creswell & Creswell, 2018).

3.2 Research Design

A research design, also called a research strategy, is a plan to answer a set of questions (McCombes, 2019). It is a framework that includes the methods and procedures to collect, analyse and interpret data. As Creswell (2014) indicates that research designs are the specific procedure involved in the research process: data collection, data analysis and report writing". On the other hand, Saunders and Heinsohn (2012) define research design as a plan aimed at answering a specific research question. Saunders (2012) further states that the research designs are not only meant to be used for the purposes of collecting data but also to provide a framework for understanding the nature of research methodologies and methods employed. The definitions above are similar to Barrot (2017) who also describes research design as the logical and coherent overall strategy that the researcher uses to integrate all the components of the research study. (Barrot, 2017, p102).

There are various forms of research designs such as surveys, case study, phenomenology, and ethnography, among others (Fusch & Ness, 2017). This research uses case study as the research design to investigate and understand the phenomenon of the framing of illegal mining by two selected media outlets in Ghana on YouTube. Case study serves as a prevalent framework in qualitative research, as asserted by Stake (2000). It is defined as an empirical investigation delving into a phenomenon within its authentic context, not merely as a method of data collection but as a comprehensive research strategy for scrutinizing social units (Yin, 2009, p. 18). This qualitative design, often described by Miles and Huberman (1994) as a phenomenon occurring within a bounded context, involves a detailed inquiry conducted over an extended period, aiming to analyse the contextual intricacies and processes that shed light on the theoretical issues at hand (Hartley, 2004). Yin (2003) provides a more intricate definition, characterising case studies as inquiries into contemporary phenomena within their real-life contexts, especially when the demarcation between the phenomenon and its context is unclear. The focal point of a case study is the exploration of "how" or "why" questions pertaining to events that the investigator has little or no control over.

In essence, the purpose of employing the case study lies in obtaining in-depth details about an event, person, or process. The concept of thick description, systematically analysed as advocated by Merriam (1998) and Geertz (1973), yields a valuable understanding and explanation of processes. Qualitative research methods, particularly the case study, prove beneficial for inquiries seeking to comprehend the meaning of specific phenomena, especially when intricate processes are involved.

It is crucial to note that the efficacy of delving deep into an event, issue, person, or process, a characteristic inherent in case studies, hinges on the researcher's tact,

resilience, and enthusiasm throughout the research process. As Stake (2005) articulates, the humane attribute of case study research reflects the researchers themselves rather than the methods employed. This methodology places a concentrated emphasis on experiential knowledge, requiring meticulous attention to the influence of social, political, and other contextual factors, a task that demands a high level of experience and tact from the researcher to convince respondents or interviewees to respond appropriately.

Yin (2014) categorises case studies into three types:

1. Descriptive, which aims to provide a detailed account of a phenomenon in its real-world context, illustrated by William Whyte's "Street Corner Society" describing the subculture in an Italian slum.
2. Explanatory which seeks causal factors explaining why and how certain conditions or events occur. Example: Allison and Zelikow's (1971) study of the Cuban Missile Crisis.
3. Exploratory which Intends to identify fresh research questions, exemplified by Elton Mayo's Hawthorne experiment.

Case study research involves a mix of data collection methods to capture the multifaceted aspects of the case: In-depth interviews—researchers engage in detailed interviews with key participants to gather their perspectives and experiences; Observation—direct observation of the case in its natural setting provides valuable insights into behaviors, interactions, and contextual factors; Document analysis—examination of relevant documents, such as records, reports, and artifacts, contributes to a comprehensive understanding of the case (Yin, 2014).

Using case study as a design, this study followed on Citi News and Joy News as cases under investigation. This study was guided by defined research objectives and questions in relation to a chosen social media (YouTube) platform. In addition to identifying YouTube as an exemplar of social media and its online community as a point of reference, the study examined the YouTube platforms of two news media outlets (Joy News and Citi News) in Ghana for analysis. In doing so, the researcher observed and analysed documents and collected data on platforms of the two selected media outlets. This was followed by the study's analyses of data collected for interpretation and the subsequent synthesis of research report as well as the findings and the recommendations among others.

3.3 Population

According to Ary, Jacobs, Sorensen and Razavich (2010), a population refers to all members of any well-defined class of people, events, or objects. Simultaneously, Creswell (2012) articulates that a population is a group of individuals who share a common characteristic therefore, a qualitative research population constitutes a gathering of individuals or objects recognised for possessing similar characteristics. The population for the study were all the videos posted by Joy news and Citi News from January 2017 to December 2018 on YouTube. The population became accessible by entering relevant keywords or phrases into the YouTube search bar to retrieve the desired videos. Relevant terms or phrases combined with every one of the keywords, "Citi News", "Joy News", "galamsey", "illegal small-scale mining", "small-scale mining", "water pollution", "land degradation" among others, resulted in multiple search episodes that availed a wide range of videos and images of interest in this study.

3.4 Sample Size and Sampling Technique

According to Creswell (2012) sample is a subgroup of a target population which the researcher intends to study for the purpose of making generalisations about the larger population. Gravetter and Wallnau (2017), refer to sample as set of units selected to represent the population of interest (Gravetter & Wallnau, 2017). Similarly, Ogula (2005) refer to sampling as a process of choosing a sub-group from a population for participation in a study whereby, the researcher selects a number of units for a study in such a way that they represent the population from which they are selected (Ogula, 2005). The sample size refers to the number of units chosen, from which data is gathered (Lavrakas, 2008). Since this study adopt case study design, the case of Citi News and Joy News in Ghana were sampled to examine their visual framing of illegal mining activities on YouTube.

According to Crossman (2018), sampling technique refers to a way to select the participants in a study including their purpose. In qualitative studies, the goal of sampling is not to achieve representative views, but rather information richness, appropriateness, and adequacy (Guetterman, 2015). This implies that the essence of sampling in qualitative research is not for the purposes of generalisation but for providing details of experiences of sampling participants in the study. By explaining an approach to sampling in qualitative research, Creswell (2012) notes, purposeful sampling involves the need to learn or understand the essential phenomenon, hence, a researcher intentionally selects individuals and sites to address research objectives and questions. Kothari (2004, p. 59) defines that purposive sampling is the technique of how the researchers select the person or the group as the sample based on their purposes and opinions. Similarly, Crossman (2017) defines a purposive sample as a non-probability sample that is selected based on characteristics of a population and the

objective of the study. Against this background, this study purposively sampled Citi News and Joy News' videos and images of illegal mining activities in Ghana, posted on YouTube from January 2017 to December, 2018.

Considering that the 2-year period under study witnessed a national campaign against illegal mining activities in Ghana, which was propelled and initiated by the media, including Joy News and Citi News, the spirited campaigns populated YouTube with rich cases of images to learn about visual framing. Even if media houses were not reporting or posting on social media (YouTube) about illegal mining activities, this study assumed that widespread campaign in 2017 and 2018 could compel the two selected media to report and post visual images or videos of the menace on the social media (YouTube) platforms at that time. The researcher chose Joy News and Citi News because they are among the most listened to news stations when it comes to issues of illegal mining in Ghana (Quainoo, 2021).

As purposive or judgment sampling entails the selection of well-informed organisations or individuals that can contribute to a study based on their specific qualities (Etikan et al., 2016), these two (Joy and Citi) were deemed justifiably well-informed media outlets that reported and posted produced videos on YouTube in the fight against galamsey. According to Wimmer and Dominic (2003), unit of analysis refers to the basic unit of the phenomenon under study. Wimmer and Dominic (2003) add that the unit of analysis could be an image, a word, a symbol, or an entire story. Within case study research, the unit of analysis is regularly described as the case with the phenomenon occurring within the bounded context of the case (Baxter & Jack, 2008). In this study, the unit of analysis was an image or scene posted on YouTube by Joy News and Citi News in the study period from January, 2017 to December, 2018, that depicts illegal mining activities.

The study purposively sampled 60 videos, which were used for the analysis because such videos, with play time of, at least, sixty (60) seconds (or a minute), adjudged to have contents on small-scale mining, were relevant to answering the research questions. Such videos or images posted by Joy News and Citi News on illegal mining from January 2017 to December, 2018 formed the sample. Purposive sampling relies primarily on the discretion of the researcher to identify samples having essential features or characteristics that present a rich case for their inclusion in the study. In selecting the videos, the researcher gave particular attention to the show of scenes and narrations about small-scale mining activities. Based on that, the videos sampled were competent to help in prosecuting the objectives of the study.

3.5 Data Collection Method

This study collects data using a qualitative approach because it focused on providing thick description of the phenomenon of galamsey and its visual frames rather than providing numbers and statistics, which are covered under quantitative research. Qualitative researchers are involved in the study of things or events in their natural setting, by attempting to interpret or make sense of the phenomenon (Denzin & Lincoln, 2005). In collecting qualitative data, this study used document analysis. In other words, data was collected by reviewing, back-to-back, all the sixty (60) YouTube videos selected and saved to gain a deeper appreciation of the contents, including images, scenes, and narrations coming with them.

As Scott and Marshall (2015) noted, document analysis is research that makes use of official and personal documents as source materials. This is not different from the definition of Bowen (2009) who referred to document analysis as a form of qualitative

research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic (Bowen, 2009).

Documents that can be analysed as source materials include newspapers, diaries, videos, photographs, tapes, letters, government statistical publications, computer files and directories, among others (Scott & Marshall, 2015). Document analysis is often related to content analysis, which is conducted by researchers to assess and evaluate sets of documents for social or historical value, or to provide a larger narrative through the study of multiple documents that surround a particular phenomenon, activity, event, or individuals (Scott & Marshall, 2015).

In this study, the multiple documents include visuals, especially videos and photographs of illegal mining activities on social media (YouTube). The study conducts document analysis because it wanted to study multiple videos and pictures surrounding galamsey activities that were published or posted by two selected media outlets (Citi News and Joy News) on social network (YouTube) during the campaign against illegal mining in Ghana in 2017 and 2018. This enabled the study to analyse the visual frames and themes that emerged from the sampled videos and pictures about illegal mining to address research objectives and questions.

3.6 Data Collection Procedure

The purpose of this study was to analyse YouTube videos and images about illegal mining activities in Ghana. The study analysed documents in respect of illegal mining on the YouTube platforms of the two selected media (Joy News and Citi News) under study, using their posts about illegal mining from January, 2017 to December, 2018. Searches conducted on the YouTube platforms of the two news outlets to retrieve and examine the archived posts of Joy News and Citi News from January 2017 to December

2018. The searches on YouTube focused on posts on illegal mining by Citi news and Joy News in 2017 and 2018, while filtering the result using key terms, such as “Citi News”, “Joy News”, “galamsey”, “illegal small-scale mining”, “small-scale mining”, “water pollution”, and “land degradation”. After identifying videos and visuals that focused on illegal mining in Ghana over the period under study, an analysis was conducted to identify the key datapoints within the sampled videos and visuals. These datapoints provided the study the opportunity to make findings and raise issues regarding framings about the menace of illegal mining.

It is worth pointing out outright that the documentary analysis hinged on the framework offered by Rodriguez and Dimitrova (2011), and thoroughly reviewed as the theoretical framework of the study. Accordingly, the data collection captures the *denotative* dimensions, including snapshots in evidence of same. Second, the *stylistic conventions* and semiotic elements adding meaning to the image were identified and marked by snapshots. Third, the *connotative* or *conceptual* dimensions portrayed in the videos were also identified. Finally, the data collection assembled data that illustrated *ideological representations* within the videos selected.

3.7 Data Collection Instrument

Mosewu (2020) defines instrument as the tools used by researchers to actually collect data in the research process. The common data collection instruments in research include interviews, questionnaires, documentary analysis and observation (Mosewu, 2020). Similarly, Frankel (2005) refers to instrument as the tool that is used to collect data which is needed in research. Creswell (2012), defines instrument as a tool for measuring, observing, or documenting quantitative data. This study uses document analysis as the data collection mechanism. The document analysis based on the

framework for analysing visual frames espoused in this study (Rodriguez & Dimitrova, 2011). By identifying all the aspects of the sampled videos (60), with features and scenes matching the denotative, stylistic conventions, connotative, and ideological interpretations, the study was furnished with the adequate data for analysis. Online personal computer aided in reviewing the sampled videos one after another for the completion of the data collection phase.

3.8 Data Analysis

According to Kothari (2004) data analysis is the organisation, manipulation and consideration of the meaning of data collected. As Meriam (1988) and Marshal and Rossman (1989) suggest, data collection and data analysis must be a simultaneous process in qualitative research. Henning, Van Rensburg and Smit (2004) postulate that qualitative data analysis is concerned with transforming raw data by searching, evaluating, recognising, coding, mapping, exploring and describing patterns, trends, themes and categories in the raw data, to interpret them and provide their underlying meanings. On the other hand, Thorne (2008, p. 142) describes the analytic process as moving “from pieces to patterns” through the activities of organising, reading and reviewing mindfully, coding, reflection, thematic derivation, and finding meaning. Henning, Van Rensburg & Smit (2004) reiterate that many qualitative studies now include multiple sources of data, including narrative or textual and visual examples photographs, videos, creative works and art, and theatrics or performative components information for analysis.

The discussion and analysis of findings in this study are performed using thematic analysis, as this type of analysis is suitable for researchers, who aim to understand the perceptions of participants regarding a specific topic (Clark & Braun, 2013). Thematic

analysis is a method for analysing qualitative data that entails searching across a data set to identify, analyse, and report repeated patterns (Braun & Clarke 2006). It is a method for describing data, which also involves interpretation in the processes of selecting codes and constructing themes. Braun & Clarke (2006) suggest that thematic analysis is a fundamental qualitative method that provides core skills applicable to various other types of analysis. Unlike many qualitative methodologies, thematic analysis is not tied to a particular epistemological or theoretical perspective. Thematic analysis allows the researcher to discover meaningful findings instead of merely summarising the data (Clarke & Braun, 2016; Saunders, Lewis & Thornhill, 2016). The process involves a systematic analysis of themes, also referred to as frames.

In this study, data was analysed using thematic analysis by Braun and Clarke (2015) and Visual Framing analysis by Rodriguez and Dimtrova (2011). The analysis followed Clarke and Braun's (2013) six-phase framework for conducting thematic analysis and found it useful. The processes in the framework are discussed as follows:

- **Familiarising oneself with the data:** This is the first step in the process of thematic analysis and involves repeatedly reading through the data to become familiar with the entire data set. Familiarising yourself with the data is the foundation for all subsequent steps in a thematic analysis process. In the context of this study, the researcher repeatedly and thoroughly observed and read through the sampled YouTube posts (documents) from Citi News and Joy News to familiarize with the data collected.
- **Generating initial codes:** This helps to organise data at a specific level with the researcher taking notes on potential data items of interest. This step specifically deals with generating codes (the most basic forms of data that can be analysed meaningfully) manually or with the help of a computer programme. In arriving at

this step, the researcher in this study manually generated codes by penning or writing down all ideas that emerged from the data in the form of hashtags and keywords. Keywords such as “operation vanguard”, “no to galamsey” and “end galamsey now”; and hashtags such as “#stopgalamseynow” and “#banongalamsey” among others, emerged and later developed into themes.

- **Searching for themes:** This involves examining the generated codes to look for potential themes through analysing, combining, comparing and mapping how codes relate to one another. As stated earlier, the generated codes in the form of hashtags and keywords were compared and those related grouped to form common themes for the purpose of thematic analysis for this study. Themes bothering on militarism, corruption and intimidation emerged based on the codes earlier generated.
- **Reviewing themes:** This involves reviewing the generated themes to check whether there is adequate data to support them. In this regard, themes are revised and modified by joining themes, dividing themes or even discarding themes for a better and adequate data analysis. In the current study, the generated themes were reviewed and grouped under the main themes that define illegal mining, that is, sustainability and human security; environmental degradation and justice; environmental citizenship and activism; corruption, intimidation and political influence; Livelihood and agitation; and Militarism
- **Defining and naming themes:** This involves defining each theme to ensure they are brief and adequately descriptive of the phenomenon under study. In the process of naming the generated themes, nine major themes primarily bothering on the phenomenon on illegal mining including “militarism, sustainability and human security, corruption, intimidation and political influence, among others, were

named. In addition, the minor theme of gender issue and livelihood were named based on the codes generated. The analysis of these themes was used in answering the second research question on what are the themes in the issues relating to documents on illegal mining activities posted by Joy News and Citi News on YouTube to audience. In the context of this study, “militarism” as a theme was defined as an ideology glorifying war; the propensity to use force; military build-up; excessive influence (of either the institution of the military or of the military–industrial complex (MIC); or the influence of military relations on social relations in general (Berghahn, 1981; Bucholz, 1999). For example, headlines such as “thirteen miners at Duori in the Upper West. arrested” and “inter-ministerial taskforce arrest two illegal miners” among others were reported by Citi News and Joy News respectively.

“Environmental degradation and justice” as a theme in this study refers to the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. For examples, Citi News reported issues of environmental justice with the captions “Occupy Ghana wants charges against Aisha Huang reviewed,” and “Small Scale Miners in Ashanti region protest ban on operation”.

Moreover, to help answer the third research question of what are the visual frames given to issues relating to illegal mining activities by Citi News and Joy News on YouTube in their presentation to audience the theme of “women roles”, was named and defined to help in the thematic analysis of the phenomenon under study. The theme of “gender issues” emerged from the visual frames which were

connotatively and stylistically analysed which sought to posit illegal mining as a form of traditional livelihood.

Producing the report: This is the final step in a thematic analysis process and involves a written analysis and description of the findings of the research (Kiger & Varpio, 2020). The final report of the thematic analysis of the current study is seen in the findings and discussion section of this study. For example, Akinyode and Khan (2018) posits that a proper understanding of the steps necessary in a qualitative data analysis cannot be over emphasised as it leads to a better interpretation of data. This implies that proper data analysis involves careful implementation of established data analysis procedures. With these widely-accepted steps in conducting thematic analysis, according to Kiger and Varpio (2020) as discussed above serve the purposes of ensuring an adequately informative analysis of data in the current study.

This is complemented by visual framing analysis of videos and photographs about illegal mining by the selected media outlets. Visual framing technique is recommended by Rodriguez and Dimitrova (2011), who proposed a four-level technique for analysing visual frames. Rodriguez and Dimitrova (2011) propound that visual frames are determined by analysing images as denotative systems; stylistic-semiotic systems; connotative systems; and ideological representations. At the denotative systems, “frames are identified by enumerating the objects and discrete elements that are actually shown in the visuals. Visual frames at this level are basically described” (Rodriguez & Dimitrova, 2011, p. 53). Frames can also be identified at this level by reading “titles, captions, inscriptions, or other textual descriptions that accompany the visual” (Rodriguez & Dimitrova, 2011, p. 53).

With regard to the stylistic-semiotic systems level, the researcher analyses “how pictorial conventions and styles make social meanings, for example, when a close-up shot signifies intimacy, a medium shot personal relationship, a full shot signifies social relationship and a long shot signifies context, scope and public distance” (Rodriguez & Dimitrova, 2011, p. 55).

At the connotative systems level, visuals are analysed as “symbols that are able to combine, compress and communicate social meaning”. Signs must be analysed for “more complex, often culture-bound interpretations” to dissect a meaning that is “highly personalised and distinct” (Rodriguez & Dimitrova, 2011, p. 56). At this stage a researcher must be ready to notice and deconstruct abstract and figurative symbols having symbolic values, as well as visual metaphors.

According to Pieterse (1992), the ideological representations level, researchers are looking for answers to such questions as to: “What interests are being served by these representations? Whose voices are being heard? What ideas dominate as noted by Rodriguez and Dimitrova (2011, p. 58), “this level tackles how news images are employed as instruments of power in the shaping of public consciousness and historical imagination”

Ethically, this study relies on the ‘fair use principle’ suggested by Pauwels (2015), which enables the researcher to analyse the videos and online contents without ethical or legal concerns (YouTube, 2021; Kozinets, 2018). The “fair use” as a copyright principle is based on the belief that the public is entitled to freely use portions of copyrighted materials for purposes of commentary and criticism (Pauwels, 2015, Kozinets, 2018). This study used the Rodriguez and Dimitrova’s (2011) framework for analysing visual frames and aspects of the sampled documents that intersect with the

different levels of the framework. In effect, different portions of the video documents, and not the entirety of the documents, were used to illustrate findings drawn from the scrutiny of the videos or images. This satisfies the principle of fair use.

3.9 Trustworthiness of Data

Nowell, Norris, White and Moules (2017) explain trustworthiness in a qualitative research as way in which a researcher demonstrates to readers that the research, with special regard to data analysis, has been conducted in a precise, consistent, and exhaustive and ethical manner. Gunawan (2015) adds that a research can only be judged as trustworthy by readers of the research. This means that, in research, the researcher must strive to ensure trustworthiness to make the study more credible in all aspect to readers.

In line with this, Creswell (2014) posits eight methods of ensuring trustworthiness in a qualitative research including triangulation, member checking, rich, thick description, clarifying bias, presenting negative or discrepant information, prolonged time at the field, and peer debriefing and external audits among others. Creswell (2014) further recommends multiple (more than one) approaches in research to enhance the accuracy of findings and convince readers of the trustworthiness of the data in the research. In this regard, this current study uses document analysis to provide thick description of data as found on YouTube pages of the two selected media outlets quest to enhance the trustworthiness of the data collection and analysis.

3.10 Ethical Consideration

As Creswell (2009) explains, in the interpretation of data in a qualitative research involving the internet, electronic, and online media studies, researchers need to provide accurate account of the data and information gathered. Therefore, Creswell (2009)

stresses that there should be no room for suppressing, falsifying, or inventing findings to meet a researcher's or an audience's parochial interest. Similarly, Sugiura (2017) argues that researchers who conduct studies on online platforms, including social media should assess the individual privacy of the cyber space to determine whether to seek consent for data collection or not, adding that potential participants, including institutions should be made to decide if they want to participate in the study or not. This study draws on these insights to ensure research ethics by seeking the consent of the two selected media outlets who permitted this study to be carried on them. Given this, the study examined the YouTube platforms of Citi News and Joy News to analyse what they posts about illegal mining activities and related issues in Ghana. As this study did not involve human participants, there was no need to seek informed consent, among others from participants and institution where this study is undertaken. Data and information collected for this study are in public domain, which are accessible by any individual or researchers interested in investigating them.

3.11 Summary of Chapter

The chapter addressed the research approach, research design, population, sampling and sampling technique, data collection method, data collection procedure, data analysis method, data analysis procedure, trustworthiness of data, the ethical consideration among others, which altogether aids in a proper analysis of data collected for in-depth understanding and making meaning of the phenomenon under study.

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.0 Introduction

This chapter of the study presents the findings and discussions from data gathered from the YouTube channels of two media outlets in Ghana (Joy News and Citi News). The study examines videos and images related to illegal small-scale mining (galamsey) to answer the following research questions:

1. What are the issues around which illegal mining was covered by Joy News and Citi News on YouTube?
2. What are the multimodal elements used to communicate the issues of illegal mining in the selected videos?
3. How was illegal mining visually framed by Joy News and Citi News on YouTube?

The analysis follows the framework for visual framing analysis by Rodriguez and Dimitrova (2011), which includes four levels: denotative systems, stylistic-semiotic systems, connotative systems, and ideological representation from data (documents) produced in the form of images and scenes adapted from the videos obtained on YouTube. Document analysis produced a compendium of excerpted images and scenes from the YouTube videos, to aid the thematic analysis conducted in the study in consonance with the six-phased procedural ideas from Braun and Clarke (2015) (see pp. 62-64).

The analysis is in two main parts with sections underneath each part. The first discusses themes emerging from the videos and images posted by Citi News and Joy News, and the second presents the visual frames analysed from the videos and images posted by both Joy News and Citi News on YouTube. Similar and divergent views in the data are discussed.

Three major themes derived from data include: use of elements of multimodal elements in reporting illegal mining; issues of illegal mining activities on YouTube; and visual frames of issues of illegal mining on YouTube. The three major themes have subthemes, which are thoroughly discussed.

4.1. Description of the Data

Although the sampled video documents totalled 60, thorough documentary analysis brought forward 44 documents for active use. For further reference, ‘Appendix A’ provides the comprehensive, tabulated data describing the scope and categorisations by which the documents were beneficial. The analysis of the 44 active documents for the purpose of examining the framing of illegal mining stories returned six main issues, namely, militarism; environmental activism and citizenship; environmental justice, and degradation; sustainability and human security; political influence, corruption and intimidation; and agitation and livelihood. Table 4.1 illustrates the communality of the documents to each of the main issues extrapolated. It organises 44 documents from the media outlets, Citi News and Joy News, under six (6) main themes: Militarism; Environmental Activism and Citizenship; Environmental Justice, and Degradation; Sustainability and Human security; Political influence, Corruption and Intimidation; and Agitation and livelihood Militarism, Environmental Activism, Environmental Justice, and Environmental Degradation, sustainability and political influence emerging from the analysis of videos and scenes.

Issues by scenes	Citi News	Joy News	Total
Total	52(23%)	196(77%)	248(100%)
Militarism	12(5%)	43(17%)	55(21%)
Environmental Activism and citizenship	10(4%)	15(6%)	25(10%)
Environmental Justice and degradation	18(7%)	105(42%)	123(49%)
Sustainability and Human security	0(0%)	2(0.8%)	2(0%)
Corruption, political influence and intimidation	7(2%)	15(6%)	22(17%)
Agitation and Livelihood	5 (2%)	16(6%)	21(8%)

Table 4.1: Summary of Data Documents with scene

Source: YouTube channels of Citi News and Joy News, Jan. 2017- Dec. 2018.

Environmental degradation emerged the most frequently addressed theme, appearing in (123) scenes 49 percent of the documents. This reveals the widespread concern and emergent response that the impacts of illegal mining on the environment generated in the media space. Environmental Justice and Environmental Activism also received substantial emphasis with regards to calls for fair treatment and community engagement in governance of, and fight against, galamsey. Militarism appeared in (55) 21 percent of the documents, which is noticeable because the use of military and its ramifications frequently characterised the law enforcement approach in the fight against illegal mining.

In effect, both Citi News and Joy New have representations of videos in the total coverage of this study, each getting documents representing (52) 77 percent and (196)

23 percent apiece of the total documents analysed. On militarism both media outlets have coverage, with (55)21percent apiece of their documents. Environmental activism received a slightly higher coverage (10%) of Joy News' documents compared to Citi News (6%). Environmental justice and degradation also received more coverage with 42 percent of documents from Joy News compared to 7 percent of documents from Citi News. Despite all that, both Joy News and Citi News contributed to the total number of documents analysed. The disparity in their coverage on the issues is the result of differences in how the media outlets frame their coverage in one episode of their footage. Joy News tends to focus more on environmental degradation than Citi News, which is the most covered theme by both media outlets. Joy News also covered more on environmental justice theme compared to Citi News. Sustainability and human security is the least covered in the documents selected from both media outlets, albeit a significant coverage.

The analysis renders a comprehensive overview of the coverage on illegal mining across six main themes: militarism, environmental activism, environmental justice and degradation, sustainability and human security, corruption, political influence and intimidation and agitation and livelihood. Specific hashtags under which several documents were retrieved helped to describe the associations between the hashtags, data documents, and main themes. The documented hashtags include: #notogalamsey, #stopgalamseynow, #endinggalamsey, #fightagainstgalamsey and #operationvanguard, that attract global viewers, shares, and encourage public engagement in the fight and campaign against illegal mining activities in Ghana. There were other documents that could not be captured under any categorical hashtag, but these documents also counted in the extrapolation of some of the main themes. These kinds of documents will be capturing no hashtag, but they are saved as "Others".

The prominence of militarism as a theme in this study resulted from 20 documents, and much more so from the hashtags, “#fightagainstgalamsey” (6 documents), “#StopGalamseyNow” (5 documents), and “#Notogalamsey” (5 documents). Militarism emerged as one of the most representative components of the coverage about the illegal mining, pointing to the application of the military as well as police forces in controlling the violation. This theme is most related to the “Fight against Galamsey” and “StopGalamseyNow” hashtags, thus indicating that these two movements rely on the use of military force. Frequent appearance under these hashtags signifies how the government and media depict militarism as a useful force against the vice namely, illegal mining.

Environmental Activism associates with 25 documents, and receives prominence through the hashtag “#Notogalamsey” (8 documents), and “Others” (8 documents). Political activism comes out clear as another theme under the main theme of environmental activism as it represents the organic society’s response to the act of illegality through the fight against the act of illegal gold mining. The high coverage under “Notogalamsey” and “Others” means that many people support activist movements that enlighten people on illegal mining issues in an effort to bring about change from the grassroots. That this focus is on activism means that there is an active public and civil society in responding to the threats of environmental degradation resulting from illegal mining activities.

Environmental Justice also gained leverage from 29 documents, and prominence through the hashtags “Notogalamsey” (7 documents), and “Others” (7 documents). The topic on environmental justice can be seen to be well-covered with distinctive attention and keenness to equal representation and protection of any part of the population that

may be affected by activities of the illegal miners. The theme of justice points to the fact that it is necessary to find fair solutions for people, including the social and economic consequences of the problem on vulnerable populations and the environment.

Environmental Degradation was a clear result of communality within 36 documents, and consistency in appearance through the hashtag “Notogalamsey” (8 documents) and “Others” (7 documents). The most popular theme tackled is environmental degradation, which shows the severe and rampant impact of the destructive effect of illegal mining. The frequencies of articles based on all hashtags remain consistent and reflect a widespread recognition of the negative impact of such activities onto the environment. The prevalence of this theme suggests that society has gained consciousness and realises that something needs to be done to reduce the negative impacts on the environment.

The findings about the main themes indicates that there was an extensive reporting on problems associated with illegal mining with special focus on environmental impacts, activism, and justice. The high value of militarism signifies an attempt to use force in the management of the law enforcement around the mining activities while the frequency of themes on the environment hints at dire need for effective, fair, and sustainable intervention to the environmental, and social effects of the illegality in mining.

4.2. Issues of Illegal Mining Activities on YouTube

The data derived from the YouTube platforms of Citi News and Joy News provide a multifaceted view of illegal mining (galamsey) in Ghana. Juxtaposing the contents of the video documents to the framework of this study offered by Rodriguez and Dimitrova (2011) in a quest to identify how the media frames the issues of illegal

mining in Ghana, the denotative, stylistic-semiotic, connotative, and ideological representations within the video documents or images were identified and analysed. Out of that analysis came the incorporation of the sub-themes exemplifying the issues as framed by the two media outlets on YouTube. These sub-themes are: sustainability, human security, corruption, political influence, intimidation, agitation, and livelihoods. In relation to the main themes erstwhile established, namely, militarism, environmental activism, environmental justice, and environmental degradation, the sub-themes are intricately interwoven with all the main themes in many regards, with some only capable of being addressed by revisiting the main themes in the study.

4.2.1 Militarisation and Militarism

A key theme (frame) that recurred in the data collected from documents on the YouTube platforms of the two selected media outlet is in respect of militarism or militarisation. Militarism in the context of this study refers to an ideology glorifying war; the propensity to use force; military build-up; excessive influence (of either the institution of the military or of the military–industrial complex (MIC); or the influence of military relations on social relations in general (Berghahn, 1981; Bucholz, 1999). For Campbell (2020), militarism is ‘the pervasiveness in society of symbols, values and discourses validating military power, and preparation for war.

The analysis found that three (3) videos posted by Citi news on YouTube under #StopGalamseyNow were instrumental in the 10 videos made by Citi News that covered the theme of militarism. The StopGalamseyNow hashtag happens to be prominent for Citi News’ coverage on militarism. One (1) of two (2) videos by Joy News on illegal mining under the same hashtag covered the theme of militarism (see under “StopGalamseyNow” and ‘Militarism’ in Appendix A). In line with framing

mechanisms to do with denotative systems, features that portray militarism in these videos identified above were, distinctly, the captions. Citi News' captions that connoted militarisation or militarism included: "Military storms galamsey areas in special enforcement operation," "Our men were on legal assignment at GPS mining site legally," and "One hundred and forty security men deployed to flush out galamseyers". On the other hand, Joy News' captions relating to militarisation read, "Operation vanguard launched" and "forestry service request military and police assistance to curb influx of illegal mining," among others.

As mentioned earlier, militarism or militarisation could be associated with the use of force or propensity to use force and glorification of war against illegal mining. The use of force was observed under the hashtag #BanOnGalamsey, which had many issues discussed under them. These issues had headlines such as "13 illegal miners at Duori in the Upper West arrested," "Inter-ministerial taskforce arrest two illegal miners," and "Four Chinese nationals arrested in Ashanti region" to denote the use of force by the military, police and authorities to arrest individuals involved in illegal mining activities in Ghana.

Just like the hashtags above, and issues discussed in respect of illegal mining, the #FightAgainstGalamsey presented headlines shown in the images that demonstrated militarism, aggression, and fatalities. Some of these included: "One person killed at operation vanguard clashes with illegal miners," "Illegal miner at Obuasi, Wawase shot dead during clash with task force," "Seven Chinese, twenty Ghanaians illegal miners arrested in central region," "Ghana dares not to lose war against illegal mining, "Is the battle against illegal mining a political suicide?" "Will the war against the menace affect NPP's fortunes in 2020?" "Four Chinese, five Ghanaians illegal miners arrested," and

“Wawasi Resident unhappy with work of anti galamsey task force,” among others. These characterisations mentioned above are visible images making direct meanings. Added to the captions and headlines, images of men in military and police uniform contribute to the denotative systems leading to an apprehension of the militarisation frame as a communication of anti-illegal mining by the media outlets. Figures 4.1 and 4.2 are still images extracted from video posts on YouTube by Citi News and Joy News respectively to depict how denotative framing have been utilised by both media.



Figure 4.1: Sample YouTube post by Citi News depicting Militarisation in Operation Vanguard against Galamsey



Figure 4.2: Sample YouTube Post by Joy News depicting the Use of Militarism and Armoured Vehicles in the Fight against Galamsey

These visible features in the images are communicated to denote militarism, pointing to the government's strategy to use deterrence and coercive power to control illegal mining. Although this approach helps the authorities to gain enforcement in the short term, the media ought not to lose sight that it also sows the seeds for social conflict, upheaval and sometimes even bloodshed—accounts of killing have been reported. The lack of long-term economic sustainability is evident if one considers that some of the drivers of the illegal activity can include issues of economic necessity and lack of other opportunities—things which the images do not explicitly portray, and in some cases, are completely ignored by the communication framers in the media circles for varied political, social, or economic reasons.

4.2.2 Environmental Citizenship and Activism

The next theme that recurred after militarism is Environmental Citizenship and Activism. Seguin, Pelletier, and Hunsley (1998), refer to environmental activism as purposeful and effortful engagement in behaviours aimed at preserving or improving the quality of the environment, and increasing public awareness of environmental

issues. Seguin et al. (1998) stated that these behaviours may include protesting, rallying, petitioning, educating the public, lobbying government and corporations, participating in direct actions, such as blockades or participating in voluntary conservation or revegetation work.

On the other hand, Stern (2000) related environmental activism to different set of behaviours such as membership to a pro-environmental group, performing activities within that group, and participating in political actions (Stern, 2000). The individuals and organisations are known collectively as part of the environmental movement or green movement. Similarly, Reis (2020), defined environmental citizenship as any form of activity by environmentalists that is designed to raise public awareness of environmental issues to make individuals to act and behave responsibly towards the environment. Ross (2022) stipulates that like environmental citizenship, activism foregrounds values, and seeks change in public values and understandings towards political influence. To change attitudes to protect and keep the environment safe and sustainable regarding the theme of environmental activism, Citi News reported two videos and Joy News reported one video under the #StopGalamseyNow that sought to promote environmental citizenship and activism.

The captions of the videos posted by the two media outlets (Citi News and Joy News) on their YouTube platforms encouraged environmental citizenship and activism that inspired people to support and participate in the fight against illegal mining in Ghana. For example, with captions such as Citi FM hits streets with second phase of #StopGalamseyNow campaign and “small scale miners in Ashanti region protest ban on operations” among others, inspired or incited the public to act as responsible citizens towards the environment.

On the other hand, Joy News promoted environmental citizenship and activism through its #NoToGalamsey campaign against illegal mining using titles such as; “Media coalition launches campaign to end galamsey”, “Anti-galamsey campaign impacting positively on water bodies in Ghana,” “Media coalition against illegal mining intensifies”, and “Media coalition declares today RED FRIDAY against illegal mining”. The headlines above helped the two media outlets (Citi News and Joy News) to attract attention and mobilise citizens for action against galamsey. In addition to these, other titles, for example “Media coalition declares today RED FRIDAY” and “Media groups campaign to support government’s fight against illegal mining” contributed in that regard. Figures 4.3 and 4.5 brings a pictorial illustration of the ideas here.



Figure 4.3: Sample YouTube Videos by Citi News, promoting Environmental Citizenship and Activism against Illegal Mining



Figure 4.4: Sample YouTube Post by Citi News promoting Environmental Citizenship and Activism for the Fight against Galamsey

Environmental activism connotes the frames in Figures 4.3 and 4.4 as posted by the Citi News outlet. Apart from the visible activists showcasing their disapproval with galamsey, the less visible or indirect message in this communication process is that of environmental activism. The frame encourages the idea that if everything else would fail in the fight against galamsey, the strength of the masses can make a bold statement to the authorities. It demonstrates the power of collective action in influencing policy and fostering a culture of environmental responsibility. It also demonstrates the efforts, particularly of the Citi News team, to galvanise public support that can press the government to do good by the people. This emphasises the role of the media house as a change agent for development. There are several development agents that show concern over issues like illegal mining, and warn or are involved in public education to raise a critical mass of the people to press for change. Joy News' coverage of the anti-illegal mining captured the Media Coalition in action as depicted in Figure 4.5.



Figure 4.5: Sample Post by Joy News promoting Environmental Citizenship and Activism against Illegal Mining on YouTube

Activities like what Figure 4.5 illustrates also demonstrate the involvement of civil society in environmental policies and management. It actually helps the public to become aware on important issues, get informed on environmental matters, and to be in a position to advocate for change. Nevertheless, given this is not highlighted very often, it indicates that though present, these endeavors are not well-developed and might require more consistent and harmonized backing.

4.2.3 Environmental Degradation and Justice

Another important theme that emerged from the data (documents) is Environmental Degradation and Justice. The United States Environmental Protection Agency (EPA, 1998) posits environmental justice were evident in the reports and representation of the menace of illegal mining in Ghana. Out of the videos produced by the two media outlets (Citi news and Joy News) captions emerged under the theme or frame of environmental justice. For example, under the #StopGalamseyNow, issues relating to environmental

justice were reported by Citi News with captions such as: “Occupy Ghana wants charges against Aisha Huang reviewed,” “Galamsey kingpin Aisha Huang granted bail,” and “Small scale miners in Ashanti region protest ban on operations,” among others.

The issues relating to environmental degradation and justice in the YouTube posts by Citi News regarding illegal mining are not different from what entailed on the platform of Joy news. Similarly, Joy News captioned the issue of environmental justice with headline such as “Aisha Huang shed tears as judge adjourns bail hearing “among others. The discussion of environmental justice comes up a result of the degradation of the environment, which also emerged as theme in the data (documents) and analysis by this study.

The Economic and Social Commission for Western Asia (2012) in their glossary of shared water resources described environmental degradation as the deterioration of the environment through depletion of resources such as air, water and soil; the destruction of ecosystems and the extinction of wildlife. In other word, degradation refers to any change or disturbance to the environment perceived to be deleterious or undesirable (ESCW, 2012). Degradation of the environment was evident in the reported videos and images posted by the two media outlets about illegal mining activities in Ghana.

Out of the videos posted by Joy News and Citi News between January 2017 and December 2018, four emerged under the theme environmental degradation. For example, using the #StopGalamseyNow, Citi News reported issues of degradation on YouTube under the following captions: “One dead, two injured after driving into abandoned galamsey pit,” and “New laboratory scientists warn of life-threatening diseases,” among others. On the other hand, Joy News presented issues relating to

degradation of the environment through various captions, such as “The impact of galamsey on the residents living in affected areas,” and “If illegal mining is not tackled, Ghana will soon import water” which were reported under #BanOnGalamsey. Figures 4.6 and 4.7 provide a pictorial view of the information above.



Figure 4.6: Sample of YouTube Post by Citi News addressing Environmental Degradation and Justice



Figure 4.7: Sample YouTube Post by Joy News addressing Environmental Justice and Degradation

The themes of degradation and justice are very relevant since they depict the harsh effects of the environment through illegal mining and injustices that are associated with them. Environmental justice deals with ensuring that people of low income and marginalised communities receive equal treatment in implementation of environmental laws and policies. Issues like “Occupy Ghana wants charges against Aisha Huang reviewed” suggest that there are disparities in how justice is meted out, often influenced by socio-political dynamics. The focus on these themes therefore calls for legislation that is sustainable as well as socially responsible.

4.2.4 Sustainability and Human Security

Another recurring theme (frame) in the data collected was Sustainability and Human Security. The United Nations Brundtland Commission (UNBC) (1987) defined sustainability as “meeting the needs of the present without compromising the ability of future generations to meet their own needs”. Therefore, environmental sustainability could be defined as a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity (Morelli, 2011) given these , the theme sustainability has become an important issue of discussion for the security of the future generations in Ghana.

Environmental Sustainability featured in the videos and other documents by Citi News and Joy News as the responsibility to conserve natural resources and protect global ecosystems to support health and wellbeing, now in the future. Five (5) captions of sustainability were found under the #BanOnGalamsey posted by Joy News. Some of these captions that emphasised on sustainability were; “We need to preserve resources

for future generation,” “All institutions should come together to fight the menace,” and “We all have the responsibility to protect the integrity of Ghana”.

On the other hand, Citi News highlighted sustainability and security in the context of posts with captions under its FightGalamseyNow, such as: “Amansie west district assembly launches land reclamation programme” and “GHc 20billion required to fix damaged galamsey,” among others. Figure 4.8 depict sustainability and human security, with the President of Ghana taking the occasion to speak to the spirited public outcry to halt galamsey. The image shows how the media have had to frame the fight against galamsey as something, which is being spearheaded by the whole government machinery represented by the President.



Figure 4.8: Sample YouTube Post by Joy News addressing Sustainability and Human Security.

Sustainability in this instance refers to the achievement of profitable returns in the short run without compromising the quality of the environment in future. This theme’s meaning points to an acknowledgement that the current approach towards the environment is unsustainable. This concern is compounded by the focus on human

security, which extends it into the socio-economic realm, making viable economic activities affected by mining much a commodity to seek. Changing for the better requires solutions that would guarantee sustainable livelihoods and safety of the communities and the environment.

4.2.5 Corruption, Political Influence, and Intimidation

Corruption, political influence, and intimidation also emerged in the data collected in the study. The World Bank (2019) defines corruption as the “abuse of public office for private gain” while Transparency International (TI) (2020), views corruption as “the abuse of entrusted power for private gain”. Zahoor, Ullah, and Gilani, (2023) suggests corruption is “behaviour which deviates from the formal duties of a public role because of private-regarding (personal, close family, private clique) pecuniary or status gains; or violates rules against the exercise of certain types of private regarding influence”. Robbins’s (2000) research on the forest identifies corruption as “a system of normalised rules, transformed from legal authority, patterned around existing inequalities, and cemented through cooperation and trust”.

The theme, ‘corruption’, was evident in seven (7) video captions that were analysed in the study. For example, under #BanOnGalamsey, post on YouTube by Joy News, the following captions appeared in the videos: “Some members of operation vanguard team are corrupt,” “leaders of anti-galamsey taskforce dismiss bribery allegations,” and “Chiefs, politicians and other cited in BNI report on galamsey,” among others. Similarly, Citi News framed their videos about the illegal mining menace under its hashtag with captions such as: “Anti galamsey taskforce debunks rumours of illegal mining in Atiwa forest,” “Military high command detains three officers accused of engaging in illegality,” “Nine mining inspectors released as part of crackdown,” “We

will investigate soldiers who protect galamseyers,” among others. These themes highlighted corruption and its related activities that exist in the illegal mining sector where various individuals and groups were implicated as they abuse their entrusted power and deviate from formal duties for their private gains, which validates the assertions and description of corruption by Transparency Initiative (2020).

In Figures 4.9, Joy News frames the issue of corruption within the galamsey taskforce using connotative approach to communicate the perception of corruption in the taskforce. Although in the frame, the individual officers may not be the ones that are accused of corruption, but the fact that they are in the military uniform is used to send the message that the taskforce, comprising military operatives, is corruption target.



Figure 4.9: Sample YouTube Post relating to Corruption in the Fight against Galamsey

In Figure 4.10 the frame of corruption allegation rather features an ideological representation in which the President declares his ideological stance on not shielding any appointee engaging in the act.



Figure 4.10: Sample YouTube Post by Citi News relating to Corruption in the Fight against Galamsey.

Another issue that also recurred under the above theme is political influence, which dominated the discussion of illegal mining on YouTube platforms of the two media outlets (Citi News and Joy News) twelve (12) out of the captions could be categorised under political influence. Under Joy News #NoToGalamsey, it reported political influence in the fight against illegal mining through these captions: “Government determined to clamp down on galamsey irrespective of cost,” “the government led minister on illegal mining has demonstrated unwavering wish to deal with the issue of galamsey”. Similarly, under the #BanOnGalamsey, captions, such as: “inter-ministerial committee in a crunch meeting to determine way forward,” “Government wining fight against illegal mining,” “Government yet to announce date for lifting the ban,” “Government announce new policy framework,” and “Ministry of Natural Resources intensifies efforts to streamline operations”. On the other hand, the captions under CitiNews # FightAgainstGalamsey that exhibited political influence include: “Gov’t to announce new policy framework for mining activities,” “Ghana dares not to lose war against illegal mining,” “Government insists artisanal miners will not be affected,” and “will the war against the menace affect NPPs fortune?”

The theme of corruption and political influence dominates the discussions, with a significant portion of the reports above projecting measures to addressing these issues, notably, from government and political circles. Figure 4.11, for instance, frames the issue of corruption in how amidst the ban on small-scale mining some miners felt shortchanged and press home their right to continue mining in a protest.



Figure 4.11: Sample YouTube Post by Citi News related to Political Influence in the Fight against Galamsey

This is, perhaps, a frame to show that government is effectively implementing the ban to stop the menace. But it also shows that a section of small-miners felt entitled to operate their mine in spite of the ban by the government. It could also mean that corruption in the exertion of political influence defeats the very purpose of the rule of law since it ends up making the citizens lose their confidence in institutions. The observations, which often mention political interference, leave a hint that illegal mining continues, at least partially, due to patronage from the government structures.

The other issue that came up under the theme in the section is intimidation which featured in the illegal mining menace in Ghana. The videos presented and reported by the two media outlets (Citi News and Joy News) on YouTube had thirteen (13) captions

that indicated intimidation. Citi News used the #FightAgainstGalamsey to report and represent intimidation through a number of headings, which include: “One person killed at operation vanguard clashes with illegal miners,” “Illegal miner at Obuasi Wawase shot dead during clash with task force,” “Seven Chinese, 20 Ghanaians illegal miners arrested in central region,” “Any soldier found protecting illegal miners will be dealt with,” “We will investigate soldiers who protect galamseyers,” and “Galamsey threats won’t stop me,” among others. Figure 4.12 depicts the use of coercive power in the fight against galamsey.



Figure 4.12: Sample YouTube post from Citi News relating to intimidation in the fight against galamsey.

On the other hand, Joy News also represented and reported intimidation through several captions of illegal mining on its YouTube platform under its #NoToGalamsey, and #BanOnGalamsey, among others. These captions are as follows: “almost 700 galamsey machines destroyed,” and “I put my presidency on the line for galamsey fight,” among others. Figure 4.13 depicts that the ordinary Ghanaian bears the brunt of the unrestrained use of coercive power.



Figure 4.13: Sample YouTube Posts posted by Joy News addressing Intimidation

4.2.6 Agitation and Livelihood

Issues relating to agitation and livelihood recurred as a theme. According to Haan & Zoomers (2003), livelihood is about individuals, households, or groups making a living, attempting to meet their various consumption and economic necessities, coping with uncertainties, and responding to new opportunities. Agitation, on the other hand, is a social process that involves intense activity undertaken by an individual or group in order to fulfil a purpose which implies that purpose is central to agitation. Dissatisfaction is also central to agitations while dissent is central to protests. Agitation is manifested through activities like strikes, mass leave, rioting and picketing. It can either be organised or unorganised and is generally non institutional. Some of which were evident in the data collected in this study. Agitation and protest can be due to actual and relative deprivation of agitators /protestors or their affiliate groups. Agitations may also aim to acquire power which are usually spontaneous.

However, both protests and agitations can be institutionalised and become social movements (Plummer, 2010). Given that agitation is institutionalised in Ghana's

democratic system, there were various resistant activities including protests against the fight against illegal mining because such activities sustained the livelihood of people who are involved. There were five (5) captions that addressed the issues of agitation and livelihood in relation to the illegal mining menace. For the hashtag on the YouTube of Joy News about galamsey, the following captions were found: “It was unintentional for some to lose their livelihood,” “small scale miners unhappy-say decision is unfair to licensed firms,” “Measures in place to train miners on best practices when ban is lifted,” “All we need is for the ban on small scale mining to be lifted,” and “Government insist artisanal miners will not be affected.” Figures 4.14 and 4.15 show how small-scale miners sustain their livelihood amidst the wanton degradation of the land, and go the lengths to defend their livelihood.



Figure 4.14: Sample YouTube Post that addressed Issues of Agitation and Livelihood



Figure 4.15: Sample YouTube Post that addressed Issues of Agitation and Livelihood

Agitation and livelihood concerns reflect the socio-economic dimensions of illegal mining. This is evident from emerging reports that small scale miners are living in labor camps and are unhappy with the decision because it is unfair on licensed firms. Essential as these bans and enforcement actions regarding the environmental degradation issues are, these livelihoods are periodically interrupted leading to protest and agitation.

To fight and eradicate the practice of illegal mining, it is imperative that several strategies such as enforcement of legal frameworks, strong anti-corruption practices, creating awareness among the people and the provision of appropriate opportunities for earning their livelihood are followed. This kind of planning must involve environmental justice so that the future generations will benefit from development in an ecological way that the society will be socially, economically, and environmentally stable having regard to sustainable development.

4.3. Multimodal elements in Reporting Illegal Mining

Citi News and Joy News use YouTube to portray various pieces of news concerning illegal mining in Ghana. They use a combination of videos, audios, facts, and other information to bring out the dangers of the galamsey. These media houses prefer using the hashtags and keywords functioning as hook to attract the attention of audiences to act as environmental citizens and engage in commentary.

The application of multimodal contents or elements on YouTube mainly drives people to participate in environmental activism, either online or through physical mobilisation. This enforces the idea that new media, especially, social media needs to transform the audience's ways of thinking and mentality concerning environmental concerns. For instance, Citi News and Joy News have developed new methods of delivering news to attract people to environmental matters. The use of elements of multimedia on YouTube has a huge influence on people to participate either through online or consequently in physical mobilisation to address environmental and illegal mining issues. This is consistent with the notion of Wilkinson et al (2009), that with the media and journalistic profession undergoing a paradigm shift, it is necessary to use new media especially social media including YouTube due to their instantaneous and interactive features to change the mind-sets and attitudes of its audience, who are willing to "learn more about their environment and potential threats in different ways" (Quinn, 2009, p. 15). For example, a range of media platforms is used to develop previously untried forms of news presentation which has found its way in the Ghanaian media space. Citi News and Joy News have adopted these media forms of presentation to catch the attention of its audiences on environmental issues in the country and beyond.

4.3.1 Use of Hashtags and Keywords

To increase their coverage and involve the audience, both media use hashtags and keywords quite often. They are used to call attention and push for environmental citizenship among the audiences. The prominent hashtags include:

- #StopGalamseyNow
- #FightAgainstGalamsey
- #BanOnGalamsey
- #OperationVanguard
- #NoToGalamsey

These hashtags help attract global viewers, facilitate content sharing, and encourage public participation in the campaign against illegal mining. The study found that illegal mining campaigns especially by Citi News revolved around two major themes such as # StopGalamseyNow and # FightAgainstGalamsey. In contrast, Joy News did not feature many captions under the hashtag #StopGalamseyNow. However, regarding the hashtag #FightAgainstGalamsey, Joy News featured more articles than Citi News.

4.3.1b Themes (Frames) that emerged out of the issues

Frame 1: Dominance of Environmental Justice and Degradation

It was observed that Environmental Justice and Degradation emerged as the most frequently addressed theme, appearing in 49% of the total documents. Joy News particularly emphasized this theme, with 42% of their coverage dedicated to it.

This suggested a widespread concern in the media about the environmental and social consequences of illegal mining, highlighting the need for justice and equitable solutions. The focus on degradation underlined the media's role in raising awareness about the severe impact of illegal mining on the environment.

Frame 2: Militarism as a Significant Law Enforcement Tool

Militarism was a prominent frame, with 21% of the total coverage across both news outlets. This theme was often linked with the hashtags "#FightAgainstGalamsey" and "#StopGalamseyNow."

The consistent coverage of militarism reflected the government's strategy to use military force as a primary tool in combating illegal mining. The media's framing of militarism indicated that the use of force is perceived as necessary in the face of widespread illegal mining activities, though it may also raise concerns about the militarization of environmental enforcement.

Frame 3: Environmental Activism and Citizenship

Environmental Activism and Citizenship received 10% of the total coverage, with Joy News slightly more focused on this theme than Citi News. This frame illustrated the role of civil society and grassroots movements in fighting against illegal mining. The media's coverage of activism suggested that there is a growing public awareness and participation in environmental governance, as citizens take an active role in advocating for sustainable practices and policies.

Frame 4: Limited Focus on Sustainability and Human Security

It is observed that Sustainability and Human Security was the least covered theme, with only 2 documents (0.8% of total coverage). Neither Citi News nor Joy News prioritised this theme in their reporting. The lack of attention to sustainability and human security indicated a gap in the media's coverage, potentially overlooking the long-term implications of illegal mining on both the environment and human well-being. This could suggest that more emphasis is needed on the sustainable development and security aspects of illegal mining.

Frame 5: Corruption and Political Influence in Illegal Mining

Corruption, Political Influence, and Intimidation accounted for 17% of the total coverage. Joy News again had more coverage in this area compared to Citi News. The significant coverage of this theme reflected concerns about the systemic corruption and political interference that may be enabling illegal mining activities. The media's framing of corruption as a central issue suggested that political will and transparency are crucial in the fight against illegal mining.

Frame 6: Agitation and Livelihood as Emerging Concerns

Agitation and Livelihood were addressed in 8% of the total documents, with a slightly higher focus from Joy News. This theme highlights the socio-economic tensions and the impact of illegal mining on local communities' livelihoods. The media's coverage of this theme points to the need for addressing the root causes of illegal mining, such as poverty and lack of alternative livelihoods, to ensure sustainable solutions.

4.3.2 Impact of Multimodal Content

Social interaction on environmental issues is also greatly enhanced by the incorporation of multimedia content in YouTube as a strategic tool. It provokes offline actions and interaction online which strengthens its argument that new media particularly the social media can change the perception and attitude of the audience towards environmentalism. For example, Citi news and Joy news, two of the best media outlets, have had to incorporate new ways of delivering news that would elicit the attention of the public to environmental issues and how multimedia affects the actions of citizens. They use a combination of videos, audios, facts, and other information as is obvious in the videos of these two media outlets published on YouTube, to bring out the dangers of the galamsey.

In addition to the hashtags, these media houses performed audience analysis to identify the audience, their interests, and level of understanding, attitudes, and beliefs by examining the comments, shares and likes, among others. In the presentation of illegal mining in Ghana, Joy News and Citi News adopt the approach of using captions and imagination to attract the attention of audiences. Joy News and Citi News used the keywords to create awareness on illegal mining and feedback from comments to extend their campaigns through frames to address issues.

Again, this finding is in concordance with Wilkinson et al. (2009) and Quinn (2009) who advocate that it is necessary for journalist to use new media due to its instantaneous and interactive features because “the media and the journalistic profession is undergoing a paradigm shift. They make a point that new media such as YouTube should be adopted in this regard due to the immense advantages of new media resulting from its immediate and interactive properties when it comes to the mindset and attitude change of the audience regarding threats in the environmental front. From the two stations; Citi news and Joy news have embraced most of these new media forms which has resulted to some form of consciousness and activism in environmental issues in Ghana.

4.4 Visual Frames of Issues of Illegal Mining on YouTube

In analysing the visual framing of issues of illegal mining activities by the media outlets on YouTube, the study adopted the visual framing levels framework as proposed by Rodriguez and Dimitrova (2011) for the discussion and analysis. Rodriguez and Dimitrova (2011), proposed four levels of visual framing which are as follows:

Denotative analysis which Panofsky (1955) explained as “the original nature of a subject” by asking “who and what is portrayed in that visual”. Messaris and Abraham

(2001) noted that the first level of visual analysis is the images' analogical and indexical nature. In short, images are deemed as a reality that is captured by a tool, for example, a camera. Framing in general focuses on the underlying message, but viewers can only identify the visual input based on their knowledge and experience. Refer to Figure 4.16 for descriptions relating to denotative form of analysis.

The second is Connotative analysis which Culloty (2019) described as the meaning that individuals attach to visual objects in terms of their ideas, feelings, or critical values. Even though connotation is dependent on the existence of denotation, it is at the level of connotation that observers, including academics and researchers introduce their own interpretations of meaning. Refer to Figure 4.16 for YouTube images related to connotative analysis.

The third level is the Stylistic analysis that is visuals as stylistic-semiotic systems which refers to the role of techniques in visual portrayal such as 'close-up' shots that showed intimacy, 'medium shot' that portrays personal relationship, 'full shot' that portrays social relationship, and 'long shot' that portrays context, scope, and social distance (Berger, 1991).

The last is the Ideological analysis that is visuals as ideological representation analyses of visuals, while referring to basic principles to unearth the attitude of certain groups, races, time, philosophy, or religious stand. It combines both symbols and stylistic features of a certain image to make a statement about the image's interpretation and presentation (Rodriguez & Dimitrova, 2011). Ideological questions arise about the interests, voice, and ideas that are presented and dominated by the image. The questions are also on the correlation of a subtler nature in the cultural, emotional, psychological spheres, as well as the different ways in which these links figure into the phenomenon

of subordination and are not limited to only economic or political interests (Amores, 2019). The model is as illustrated in Table 4.2.

Table 4.2: Operationalisation of Visual Frames adapted from Rodriguez and Dimitrova (2011)

Visual framing level	Definition of the concept	Operationalisation
Denotative systems	Who or what is being depicted	Illegal mining site, illegal miners (galamseyers) The size of the group, facial expressions, actors (politicians, military, media, miners, etc.)
Stylistic-semiotic systems	The stylistic conventions and technical transformation involved in representation.	Camera shot
Connotative systems	Ideas or concepts attached to visuals. Visuals are examined more in terms of the type of sign and symbols.	Dominant frames
Ideological representations	It draws together the symbols and stylistic features of an image into coherent interpretations which provides the ‘why’ behind the representations being analysed.	Symbolic features of an image and their coherent interpretations

Source: Rodriguez and Dimitrova (2011)

Joy News and Citi News are two online news sources that were actively involved in the publication of illegal mining issues on social media (YouTube) during the campaign in 2017 and 2018. Below are some images from salient videos depicting visually frames by the two media outlets (Joy News and Citi News) on the YouTube platform.



Figure 4.16: Sample Visual Frames of Ghanaian and Chinese Nationals arrested for Galamsey

In line with Rodriguez and Dimitrova's (2011) denotative system, the images in figure 4.16 depict a group of arrested men who are perceived to be galamseyers. The images show arrested young nationals who are involved in the illegal mining activity as well as a Chinese woman who happened to be Aisha Huang—a widely known Chinese national participating in mining activities in Ghana without due recourse to the law—whose eventual arrest in relation to galamsey was publicised in the media. The media deployed means to get her glaring face in their camera to cut short her shyness of the cameras.

Like Rodriguez and Dimitrova's (2011) stylistic level of visual framing, the images in Figure 4.16 are in medium sizes, which are in close shot in their appearance. Connotatively, the images of galamsey on the YouTube platform of the selected outlets

show that both nationals and foreigners are involved in illegal mining activity in Ghana. Even though the images portray that illegal mining is an offensive act against the laws of Ghana, and anyone who gets involved could be arrested irrespective of gender, race or age, many individuals and groups, some of whom are foreigners from China, Mali and other countries participate in it. Thus, illegal mining connotes the activities of such individuals and groups in the small-scale mining sector in Ghana. Reflecting the ideological representation (Rodriguez and Dimitrova, 2011), the close shot of Aisha Huang's image links her facial identity with her participation in the illegal mining menace. The Chinese woman was portrayed as a major suspect criminal in illegal small-scale mining in Ghana.

Figure 4.17 portrays a group of individuals who are angry and wanting to speak their hearts out about the galamsey menace. The faces and hand movement of persons in the images show aggressiveness. These shots are close and tell how serious and grave their issues are. Everyone in the photo wanted to speak into the microphone.



Figure 4.17: Sample Visual Frames of Small-Scale Miners protesting the Ban on Small-Scale Mining

Similarly, Figure 4.18 discloses some unhappy small-scale miners exhibiting their disagreement with the ban on their activities with red headkerchief and neckerchief.



Figure 4.18: Sample Visual Frames of Small-Scale Miners threatening 'All Die Be Die' Demonstration if the Ban on Illegal Mining is not lifted

Consistent with the Connotative system propounded by Rodriguez and Dimitrova, their faces show agitated men who are making threatening statements. Ideologically, the issues of individuals visually framed in the galamsey menace on YouTube matter in ensuring a fair and balanced understanding of the stakes in the small-scale mining sector. This an important consideration of the media outlets leading to their capturing of the protesters in close camera shots to help convey their issues to the government and other stakeholders.

Figure 4.19 shows a group of armed military and police, as well as miners who are wearing their weapons and patrolling at galamsey sites. In one part of the figure, there is a clash of armed soldiers and illegal miners on a galamsey site.



Figure 4.19: Sample Visual Frames of Formation and Activities of Operation Vanguard

Stylistically, the images in figure 4.19 have distant shots, with only one close shot. Connotatively, the images portray that the illegal mining issue is a war. The presence of the police and the military and ammunitions portray that it is a real battle. Ideologically, most of the camera shot were distant which hid the weapons and faces of the security personnel involved in the operations. The image in close shot show that the visual is important to aid identification of the person in the military in charge the operation in the mining communities.

Figure 4.20 shows a typical galamsey site with polluted land and water. The Figures show images of some tools that are used on galamsey sites, some of them are simple tools, while others are complex tools.



Figure 4.20: Sample Visual Frames of Galamsey Sites near River Offin

Stylistically, the shots of these tools are medium and small. Connotatively, the site and the tools show how degradation of the environment occurs in communities. The number of people who are figured in the visuals portray that galamsey remains a form of livelihood for people who live around these sites. Ideologically the camera shots of the visuals portray the act of galamsey in a crude or illegal way that is punishable by the laws of Ghana.

Figure 4.21 reveals the faces of some political leaders who are interested and involved in the fight against illegal mining in Ghana. In the figure, the then Interior Minister, Dominic Nitiwu, addresses a group of people with so much seriousness on his face. In other images in Figure 4.21, a group of pundits are also in a discussion in relation to the galamsey menace. These pundits are from political parties in Ghana—the New Patriotic Party and National Democratic Congress, among others. Another image also shows the President of Ghana addressing an audience as well as Chairperson of Media

Coalition against Illegal Mining been interviewed. The images were captured at close-to medium-range shots.



Figure 4.21: Sample Visual Frames of Political Actors in the Fight Against Galamsey

Connotatively, the political figures looked worried about the illegal mining menace, which they attempt to influence people to fight against through speech act. Ideologically, the visuals with close shots, indicating the significance of opinion leaders and expert voices in the fight against galamsey.

The images in Figure 4.22 portray women's involvement in galamsey activities of which many are mothers.



Figure 4.22: Sample Visual Frames of Women at Illegal Mining Sites

Similarly, Figure 4.23 shows a relatively young woman standing in an irregular mining pit amidst young males including children.



Figure 4.23: Sample Visual Frames of a Young Women and Children at Illegal Mining Sites

Stylistically, the visuals have medium-range shots, which connotatively portray illegal mining as a form of livelihood for some people, including mothers, to enable them put food on their table. Ideologically, galamsey was visually framed in the images as a gender-related issue that must be addressed with care, as well as child right considerations that require legal clarification.

The images in Figure 4.22 show a group of activists, campaigners, and a reporter. The activists/campaigners, smeared with red and white colour on their body, are carrying plastic bottles with filthy, coloured water on their heads to demonstrate their displeasure against galamsey and how it is destroying water bodies. The reporter is also clad in red a red shirt to signify anger.



Figure 4.24: Sample Visual Frames of Citizenship and Activism in the Fight against Illegal Mining

Stylistically, the shots were medium- to close-range in appearance. Connotatively, they individuals portrayed are showing their displeasure about galamsey. The red colours symbolise protest. Given that these images emanated from actions during the media's spirited protest of illegal mining, such a symbol indicates how concerned the media are about illegal mining activities. Ideologically, the shots and colours portray displeasure, concerning which colour red is usually used to signal danger and grief, among others.

4.5 Discussions of Findings with Respect to Research Questions

In the following sections, the discussion of findings in this study is presented in respect of the research questions.

4.5.1 Research Question One – Issues of Illegal Mining covered by the Media

The analysis of 44 active video documents from Joy News and Citi News on YouTube reveals six main themes in their coverage of illegal mining: the militarism or pro war approach, environmental activism, environmental justice, and environmental degradation, sustainability and political influence. Following that, the observation and analysis of videos revealed issues with the illegal mining activities in the following aspects: militarism; environmental citizenship and activism; environmental degradation and justice; sustainability and human security; corruption, intimidation and political influence; and agitation and livelihood. The issues in the themes were highlighted through captions describing the videos and images posted about illegal mining on YouTube by Citi News and Joy News. Explicit themes identified from the documents indicated that environmental degradation was the most discussed theme in the documents, receiving coverage in 49% of the documents. This explains why the media has particularly placed a lot of emphasis on the very adverse effects that the Illegal mining, also referred to as “galamsey” has on the environment in Ghana.

The issue of militarism is present to a greater extent than the other themes; in fact, 21% of all documents discussed it, including both news media sources. This last theme is defined by the employment of military as well as police forces to tackle the same issues of illegal mining. The media on the military, especially through hashtags like #fightagainstgalamsey and #StopGalamseyNow shows their focus on utilizing military might on the fight against galamsey. Bernazzoli and Flint (2009) argue that militarism in the management of the environment is counterproductive since it escalates tensions and results in conflict and human rights abuse. Such a rationale certainly masks the requirement for a long-term and endogenous fix that ought to be the platform to lasting triumph (Bryant, 1998). From the documents, however, the media did not highlight the

concerns with the counterproductive nature of the militarism in solving the issue, except to go with the gallery in a manner that suggests that the spirited fight against the galamsey is bolstered by the militaristic approach, although issues of killings, destruction of mining machines, and corruption were reported with the military taskforce. From the documents posted by the media housed and used in the analysis, both Citi News and Joy News had 45 percent apiece of their documents contributing to this narrative on militarism.

Another major issue reported is the environmental activism and citizenship covered in 25 (10%) of the documents from both media outlets put together. This reveals the role of the media as the stimuli and the advocate for the environmentally friendly protests, against the acts of illicit mining. Joy News as well as Citi News sought to advocate for activism through their 'hashtags' and various demonstrations such as "NO to galamsey". The documents reveal Citi News's active initiative in launching protests against galamsey under their hashtag, "StopGalamseyNow". That said, Joy News had more coverage (15%) of their documents on environmental activism compared to that of Citi News (4%). Seguin, Pelletier, and Hunsley (1998) reveal that environmental activism is associated with the actions focused on maintenance or enhancement of environmental quality. This can include protest, education and/or persuasion such as lobbying. The media practices conform to this definition by presenting the civil society's fight against environmental ineptitude as active citizenship.

Environmental degradation and justice presented another issue in the analysis. The term 'environmental justice' appeared 29 times in the documents, representing 66 percent of the total documents analysed. This issue featured prominently under the hashtags StopGalamseyNow, connected mostly with Citi News, and then "NotoGalamsey"

largely publicised by Joy News. Joy News presented a bit more content on environmental justice with 73 percent of its available documents on the issue compared to Citi News' 59 percent of documents. Environmental justice is about providing measures of fairness towards people when environmental decisions are being made, especially, in the case of illegal mining. Issues of fairness were also brought to light as the media amplified calls for the inclusion of policies in safeguarding vulnerable communities against the consequences of galamsey. Environmental Justice is pertinent in protecting citizens from environmental discriminations where vulnerable groups are punished with adverse effects (Bullard, 1993). The relative focus that the media has placed on the consideration of this theme, underlines the need for fairness in addressing the challenge of illegal mining.

On the other hand, environmental degradation is an issue with the highest occurrence in the total documents analysed in this study, with 36 out of the 44 documents, representing 82 percent of all the documents, illustrating of the effects of illegal mining. The effect on environment was often described in the posted videos of both media outlets, and this included destruction of ecosystems, polluting of water sources and other vices. Environmental pollution and degradation are stated as problematic issues in numerous papers and there is a call for conscious conservation measures in the long run for the protection of the environment to continue supporting life (Khan, 2004). The media has dwelled on this theme in tune with the rest of society calling for action to address the negative impacts of soil deterioration by the vice.

Next, the issue with sustainability and human security emerged from the documents. Rightly so, on back of serious environmental injustice and degradation occasioned by galamsey, environmental sustainability measures become questionable. Captions in

some documents raised doubts whether approach to mining and the measures to address galamsey promised sustainability, especially, in the efficient usage of resources for future generations. With all the environmental issues, militarisation, injustice, and seeming counterproductive measures to end illegal mining, barring sustainability management brings an obvious threat to human security. Various definitions of sustainability provided by the United Nations Brundtland Commission focuses on ensuring that future generations will also be able to meet their own need as present generations endeavour to meet their present needs (UNBC, 1987).

Another issue raised by the media posts was corruption, political influence, and intimidation. More broadly, corruption and political influence were recurring subjects —with investigations by the media into instances of bribery, as well as political interference in the implementation of anti-illegal mining policies. This issue goes back to the question of governance conditions. Taking notice of the phrase ‘abuse of entrusted power for private gain’ in Transparency International’s definition of corruption (2020), which states ‘Corruption is the abuse of entrusted power for private gain,’ allegations of corruption and criticisms against authorities holding power in the anti-galamsey efforts, which were rife in several documents analysed, raise heightened the corruption issue. In the videos and images on illegal mining, there is great learning about political influence and corruption, and observation that such factors hinder effective policy implementation.

Also, issues to do with agitation and livelihood challenges were prevalent in the visuals analysed. The reoccurring theme of socio-economic effects the illegal mining was glaring. It concerned the impact that enforcement actions had on peoples’ livelihoods. What emerges is a tension between environmental conservation and the desire of people

to earn their living through mining. Uncertainties and economic opportunities arise from livelihood questions, according to Haan & Zoomers (2003). The coverage by the media outlets, Citi News and Joy News, highlight the policy required to balance ecological protection with supply of opportunities for impacted communities and individuals. The media outlets did so by zooming into some of the active constituents of illegal mining, which included women and children, defying the odds to step down into galamsey pits. From the images, the sheer bravado of the galamsayers in risking their lives, in carry on with degrading the environment with no concern, and in daring to voice out and face off opposition and forces tell the stakes that their mining activities hold in their livelihoods.

The findings regarding the issues of galamsey that Joy News and Citi News covered focuses on environmental degradation, activism, injustice, and militarism, including corruption and political influence, sustainability and human security, livelihoods—which are working together to take the fight against galamsey nowhere. This suggests that the media plays a clear role in putting these issues on the political and governance agenda. By paying close attention to media, there could be some promise to discover the sustainable, equitable ways forward that are needed to find solutions to galamsey's complex problems.

4.5.2. Research Question Two – Multimodal elements used by the Media

The findings demonstrate how Joy News and Citi News use multimodal elements on the Web, particularly YouTube, to cover the topic of galamsey, the illicit mining in Ghana. Multimedia such as videos, audios, facts, hashtags, and keywords play a very important role in the raising awareness and public sensitisation in fighting galamsey. Joy News and Citi News employ the social messaging platform in sharing news about

the unlawful activities in illegal mining. They combine various multimedia elements to engage their audience:

Videos and Audios

These are helpful in sensitizing participants on the effects of the vice and the fate of the affected communities. Videos come with clips of interviews, shots taken at the scene of incidences, and analysis from experts, which makes the subject more real and timely.

Facts and Information

These news outlets pick factual data use them in their multimodal formats to give a big picture on the magnitude and ramifications of galamsey.

Hashtags and Keywords

Both media houses effectively use hashtags and keywords to increase visibility and engagement. The prominent hashtags include:

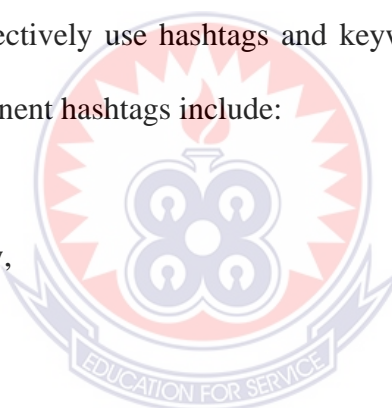
#StopGalamseyNow,

#FightAgainstGalamsey,

#BanOnGalamsey,

#OperationVanguard,

#NoToGalamsey.



These hashtags serve multiple purposes, some of which were found to be attracting attention to the issues; facilitating content sharing since the help users to extend campaigns; and encouraging public participation in fighting illegal mining. Thus, the study found multimedia content on YouTube right for social interaction. Joy News and Citi News conduct audience analysis to tailor their content. Both Joy News and Citi News spend a lot of efforts and financial resources in audience analysis to identify audience interests and receive feedback. This way, the media outlets were able to mobilise responses together with advocacy campaigns aiming for the protection of the

environment. This strategy reflects Wilkinson, et al. (2009) and Quinn's (2009) findings that, due to the characteristics of the new media, the target group has shifted perception/attitude towards the issue in question and the environment. The change in the modality of journalism and the simultaneous use of YouTube in this case helped the society to appreciate the galamsey issues.

4.5.3. Research Question Three – Visual Frames and their Denotative and Connotative Meanings

The framework for evaluating the Joy News and Citi News coverage of illegality in mining (galamsey in Ghana) on YouTube, reveals a complex approach to identify important visual frames in compliance with the levels of visual analysis by Rodriguez & Dimitrova (2011). Such an approach improves cognition and motivation towards the problem through the consideration of both the denotative, connotative, stylistic, and ideological layers of meaning.

Denotative analysis focuses on purpose of identifying persons and other objects in the visual. Panofsky (1955) described it as the concept of the figure portrayed, which means the inherent quality of a subject depicted. Examples of this as shown in the study was a picture of arrested young miners and one of the well-known Chinese named Aisha Huang, taken under the process of arresting them for conducting illegal mining. These visuals present clear images of the people conducting 'galamsey', contributing the human perspective view to the subject. Also, video clips that presented demonstrating miners against the mining ban; facial expressions and hand movement were a clear indication of their anger. By the denotative approach, Citi News and Joy News captured the truth about the issue since the images directly translates their meaning.

Connotative analysis focuses on what different people think, feel, or even consider given visuals they come across. This level is an expansion of the previous level where true and false information is provided, but it introduces subjective interpretations (Culloty, 2019). Some examples found in the study images that depicted local and foreign nationals' (Chinese) involvement in illegal mining, insinuating complex cross-border engagement issues. Also, capturing of protesting miners in close shots connoted their frustration and economic tensions looming around the galamsey issue.

Other frames include the stylistic frames, which examines the technical, stylistic rendition of the visuals, such as camera shot angles, to capture contexts and abstracts terms like relationships (Berger, 1991). Exemplifying this were close-range shots of images like Aisha Huang to create a sense of immediacy and intimacy. Protestors and group interactions were captured in medium or full shots to render the broader context of happenings. Frames portraying ideological positions synthesise meanings and implications from images (Rodriguez & Dimitrova, 2011). Example, the close-up shot of Aisha Huang connected her to her large-scale legal infringement within the mining sector, and emphasised her as an embattled figure of mining illegality. Miners with red headbands and aggressive postures convey a strong ideological message about resistance and the fight for rights and livelihoods against governmental policies. Environmental activism was shown by activists and protestors clad in red attire to signal their anger and disapproval of the environment destruction to the illegal mining. These frames expose the existing power relations, society's tensions, and the role of media in influencing the community and standing for it.

4.6 Summary

Four major themes emerge from the analysis of 60 videos from Joy News and Citi News posted on YouTube about illegal mining: environmental activism, environmental justice, militarism, and environmental degradation. With 82 percent of the documents making references to environmental degradation, it became clear that the media was emphasising the negative effects of illegal mining on Ghana's environment. Forty-five percent of the documents discuss militarism, which is indicative of the media's emphasis on police and military actions against illegal mining. The potential counter-productive nature of this strategy though was not adequately discussed by the media. The media's role in supporting environmental protection and promoting public protests on illegal mining is demonstrated by environmental activism and citizenship, which are covered in 57% of the documents. Activism was promoted by Joy News and Citi News through hashtags and protests. Sixty-six percent of the documents features environmental justice, which highlights the importance of impartiality in environmental decision-making especially when it comes to safeguarding marginalized communities from the damaging consequences of illicit mining. The study also emphasizes how Joy News and Citi News use multimedia elements, including facts, videos, audios, hashtags, and keywords to engage and raise awareness among the public on YouTube. Using Rodriguez and Dimitrova's (2011) framework the visual frames in the media coverage were examined. This revealed many levels of meaning ranging from stylistic and ideological interpretations to denotative and connotative meanings. By highlighting the Medias influence on public opinion and advocacy against illegal mining this strategy improves understanding and engagement with the issue.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

In this chapter, the summary and conclusion from the research data and analysis are made, providing some recommendations to the media, policy makers and environmental communication practitioners and academics. The chapter also discusses the limitations of the study and provides suggestions for future research.

5.1 Summary of Findings

This study sought to examine the issues of illegal mining in YouTube videos posted by Citi News and Joy News within the period January 2017 to December 2018. The study specifically analysed videos of illegal mining (galamsey) on YouTube by two selected media outlets (Citi News and Joy News) in their usage of the platform in reporting and presenting issues of illegal mining activities in Ghana. Four major themes emerge from the YouTube analysis of 44 video documents from Joy News and Citi News regarding their coverage of illegal mining in Ghana: environmental degradation, environmental activism, environmental justice, and militarism.

With 82 percent of the documents discussing environmental degradation, it became the most prominent theme highlighting the damaging effects of illegal mining or galamsey on the environment. The focus on military and police interventions against illegal mining is reflected in 45 percent of the documents that contain militarism despite criticism that these tactics are ineffective and exacerbating tensions. The potential counter-productive nature of this strategy though was, however, not adequately explored and discussed by the media (especially, Citi News and Joy News). Twenty-five percent (25%) of the documents addressed environmental activism and citizenship,

which also demonstrated the media's role in promoting environmental conservation, and mobilising support for advocacy and public demonstrations. Joy News and Citi News both promoted activism through hashtags and demonstrations. However, Joy News made slightly more coverage (59 percent) than Citi News (55 percent). The concept of environmental justice, which appears in 66 percent of the documents, emphasises the necessity of impartiality when making decisions about the environment, especially, when it comes to safeguarding marginalized communities from the damaging consequences of illicit mining effects exerted by the issues to do with livelihoods and economy, corruption and political power, and sustainability and human security, were substantial matters spread across several video documents in the analysis. According to the study, political interference and corruption obstruct the successful application of policies. The findings show that the conflict between the need for present economic welfare and environmental preservation emphasises the difficulty of solving galamsey. These issues are brought to light by the media's coverage, which also raises questions about how the media influences political and governance agendas, and may help find long-term solutions to the complex issues associated with illegal mining.

The second objective of this study focused on identifying the elements of multimodality adopted by the two media outlets in their postings onto the YouTube platform. The study looked at how Joy News and Citi News cover the topic of galamsey (illegal mining) in Ghana by using multimodal features on their websites particularly YouTube. Elements of multimodal proves to be successful in educating the public about the negative effects of galamsey and creating the desired awareness. The following were key elements of multimedia found in this study utilised in the postings on YouTube by Citi News and Joy News media:

- (1) Videos consist of expert analyses on-location video and interviews that give viewers a more immediate and tangible understanding of the subject.
- (2) Audios to complement visual data with aural or audio effect for enhanced communication.
- (3) Facts and information were used by both news outlets in their multimedia contents, providing a thorough understanding of the scope and effects of galamsey.
- (4) Hashtags and keywords, of which prominent hashtags were:

- #StopGalamseyNow
- #FightAgainstGalamsey
- #BanOnGalamsey
- #OperationVanguard
- #NoToGalamsey

These hashtags increase awareness, enhance access to contents, make content sharing easier, and motivate people to participate in anti-galamsey campaigns. A combination of these elements helps form strategies for public engagement by the media. Additionally, both media platforms make large investments in learning about the interests of their viewers and gathering feedback. They can now customise their content encourage feedback and launch environmental protection advocacy campaigns thanks to this. Galamsey is a problem that Joy News and Citi News have successfully brought attention to and stimulated social interaction around by utilizing multimedia sections on YouTube.

The final objective of the study regards the meaning, particularly denotative and connotative meaning, of the visual frames within the video documents posted on

YouTube by Citi News and Joy News. The analysis looked at the denotative, connotative, stylistic, and ideological layers of visual meaning in accordance with Rodriguez and Dimitrova's (2011) levels of visual analysis. This multifaceted approach improves awareness and interaction with the problem.

The denotative analysis showed in the identification of people and objects in visual images, just as images of prominent Chinese national, Aisha Huang, and young miners who had been arrested, highlighted their involvement in illicit mining. Another instance was images showing miners protesting the mining ban, with facial expressions and hand movements indicating anger. These images give the people involved in Galamsey a clear and accurate representation giving the problem a human face.

Connotative analysis revealed subjective meanings and emotional responses to the images. This showed in the images of local and foreign (Chinese) nationals participating in the illegal mining, and the complex border challenges it implicates. Frustration and economic tensions were connotations from the close shots of protesting miners. These explanations offer a more thorough comprehension of the psychological and social aspects of the problem of illicit mining. Added to this were stylistic frames, which speak to technical elements of the images like camera angles and shot compositions. Close-up images of people such as Aisha Huang conveyed intimacy and immediateness. Protesters in full or medium shots to convey the larger scene. Ideological frames were demonstrated in the deeper meanings and ideas behind the images. Example, miners with red headbands and aggressive postures, symbolizing resistance against government policies. Their attire in red colour signaled anger and dissent with the way illegal mining is destroying the environment. The findings showed that Joy News and Citi News cover the galamsey issue on YouTube through a

skilful use of visual frames. They successfully set the agenda for communication by fusing stylistic, ideological, connotative, and denotative meanings of the images.

5.2 Conclusion

This study investigates the efforts made by Joy News and Citi News between January 2017 and December 2018 to cover the topic of illegal mining or galamsey on YouTube. The study analyses multimedia and visual framing strategies used to improve public understanding and engagement, as well as important themes in media coverage. The results offer valuable understandings of the medias function in tackling environmental concerns and the wider socio-political ramifications of galamsey.

The media study emphasises the serious consequences of uncontrolled mining activity and the pressing need for sustainable practices to mitigate the harm galamsey mining causes to Ghana's ecosystem. The use of military tactics to deter illegal mining is meant to be effective, but it is not critically assessed for its potential to escalate conflicts. This suggests that media coverage needs to be more nuanced in its reporting and explore less confrontational alternatives. Joy News and Citi News use social media and hashtags to publicise their campaigns, demonstrating how digital platforms can spur community action. To enhance the overall communicative impact audio facts and information are used in addition to visual data. These digital tools help create a collective consciousness and encourage public participation in anti-galamsey campaigns. Through the strategic use of multimedia public education is complemented by the development of a sense of community and shared responsibility. The conclusions draw attention to how important the media is in influencing political agendas and public conversation. Joy News and Citi News support awareness-building and action-prompting by drawing attention to the social and environmental problems related to galamsey. However, the media's

emphasis on topics like militarism without providing enough critical analysis points to the need for more thorough and impartial reporting. The study emphasises how crucial visual framing and multimedia are to successful communication. When strategically applied these components can increase public awareness encourage participation and motivate advocacy initiatives. Furthermore, communities can be empowered and policy decisions can be influenced by the medias ability to draw attention to environmental justice and activism issues.

According to the study, YouTube has been a useful tool for Joy News and Citi News to promote social interaction and effectively spread the word about anti-galamsey. Both media outlets inspire collective action for environmental justice and conservation through their use of multimedia and visual frames, which also educate the public. The study suggests that a more critical and objective reporting approach could improve the media's ability to cover Ghana's intricate issues related to illegal mining. By improving their strategies and analysis over time, media outlets can turn into invaluable allies in the fight for environmentally friendly solutions and the defense of underprivileged communities.

5.3 Recommendations

Given the findings of this research, this section (5.4) attempts to provide some recommendations for the media outlets and future studies on environmental communication and media reportage of galamsey and other environmental issues. This study proposes the improvement of coverage, information and visual frames about illegal mining by the media outlets as serious threat to human lives and security especially on social networks and platforms to reach out to many people and intensify the fight against galamsey in Ghana. The study recommends the media outlets to

increase their close psychological distance and sensation of illegal mining activities as negative and dangerous, not only to garner more public support to address the menace, but also deter individuals from involving themselves in such unlawful acts.

More so, there is the need for some regulations to address issues regarding the spread of disinformed, fake and misinformed videos about illegal mining, which could magnify conflicts, tension and insecurity in communities' especially mining areas through uncontrolled online (social media) platforms including YouTube.

5.4 Limitation of the Study

Like other studies, this research also has its peculiar limitation. This study focused on the case of Citi News and Joy News which makes generalisation difficult. Therefore, findings could only be applied to these two outlets rather than other media that were not selected for this study. This study focused on only YouTube as an exemplar of social media platforms used by the media outlets to the exclusion of other platforms used by the media outlets under study. The study findings are situated in qualitative document analysis and observation, which do not include data from other research methods which may provide different or additional data to make findings and analysis more holistic. The study could not analyse all the videos on illegal mining published by the two selected media outlets as the data collected focused on Youtube posts made by the outlets in 2017 and 2018.

5.5 Suggestions for Further Studies

The study's discussions in the finding and analysis revealed various gaps relating to the environmental issues and illegal mining that could be researched. There is therefore the need for further studies into these areas that have potentials for research. The findings of this study could serve as the basis for further research into the use of social media in

reporting and framing environmental issues. Other researchers can study the use of social media in addressing other environment issues including deforestation, and pollution of water bodies, among others. Further studies on illegal mining could be conducted using quantitative methods to include more media outlets to be able to make concrete generalisation of result findings and data.

More so, further studies could also be conducted on how environmental issues including illegal mining activities reported on social media especially YouTube influence audiences of messages and information through quantitative methods such as surveys. Other studies on the environment and illegal mining activities in the future could also focus on other forms of news media especially newspapers and television to compare how they presented and visually framed issues related to the menace in Ghana.



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APPENDIX A
DESCRIPTION OF DATA

Media outlet	Hashtag/document	Main Themes			
		Militarism	Environmental activism	Environmental justice	environmental degradation
	StopGalamseyNow				
Citi News	Military storms galamsey areas in special enforcement operation	√	√	√	
Citi News	Our men were on legal assignment at GPS mining site legally	√		√	
Citi News	One dead, two injured after driving into abandoned galamsey pit	√	√		√
Citi News	Occupy Ghana wants charges against Aisha Huang reviewed		√	√	
Joy News	media coalition launches campaign to end galamsey		√		√
Joy News	operation vanguard launched	√		√	√
	Fight Against Galamsey				
Joy News	One person killed as operation vanguard clashes with illegal miners	√		√	
Citi News	Illegal miner at Obuasi, Wawase shot dead during clash with taskforce	√		√	

Citi News	Seven Chinese, 20 Ghanaians illegal miners arrested in central region			√	
Joy News	Gov't to announce new policy framework for mining activities			√	√
Joy News	Ghana dares not to lose war against illegal mining	√	√		
Joy News	Amansie west district assembly launches land reclamation programme	√	√		
Joy News	Is the battle against illegal mining a political suicide	√			√
Citi News	Will the war against the menace affect NPP's fortunes in 2020			√	√
Citi News	4 Chinese, 5 Ghanaian illegal miners arrested		√	√	√
	Notogalamsey				
Joy News	13 remained trapped in the Prestea Nsuta pit		√		√
Joy News	Anti galamsey campaign impacting positively on water bodies in Ghana	√	√		√
Joy News	Media coalition against illegal mining intensifies		√	√	√
Joy News	Media coalition declares today RED FRIDAY against illegal mining		√	√	√
Joy News	Forestry service request military and police assistance to curb influx of illegal mining	√	√	√	√

Joy News	Government determined to clamp down on galamsey irrespective of political cost	√		√	√
Joy News	The government led minister on illegal mining has demonstrated his unwavering wish to deal with the issue of galamsey		√	√	√
	BanOnGalamsey				
Citi News	Inter-ministerial committee in a crunch meeting to determine way forward		√		√
Citi News	Measures in place to train miners on best practices when ban is lifted		√		√
Joy News	Reason for delay in lifting ban not known		√	√	√
Citi News	13 illegal miners at Duori in the Upper West arrested	√	√	√	√
Joy News	The impact of galamsey on the residents living in affected areas	√	√		√
Joy News	Government winning fight against illegal mining	√			√
	Others				
Joy News	Government yet to announce date for lifting the ban	√	√		√
Citi News	Team lead, volunteer against environmental degradation		√		√
Citi News	Almost 7,000 galamsey machines destroyed	√		√	√

Citi News	All we need is for the ban on small scale mining to be lifted	√			√
Joy News	Ban on small scale mining has not achieved much; water bodies not clear	√			√
Joy News	Some members of operation vanguard team are corrupt		√	√	√
Joy News	Inter-ministerial taskforce arrest two illegal miners			√	√
Joy News	Government to announce new policy framework			√	√
Citi News	We must exclude politics in new policies		√	√	√
Citi News	It was unintentional for some to lose their livelihood	√		√	√
Citi News	Four Chinese nationals arrested in Ashanti region			√	√
Citi News	Minister of Natural Resources intensify efforts to streamline operations	√	√	√	√
Citi News	I put my presidency on the line for galamsey fight			√	√
Citi News	We need to preserve resources for future generation		√	√	√
Citi News	All institutions should come together to fight the menace		√	√	√
Joy News	We all have the responsibility to protect the integrity of Ghana		√	√	√
Total	44 documents	20 documents	25 documents	29 documents	36 documents

APPENDIX B

KEY INSIGHTS

1. Militarism:

- Total: 20 documents
- Predominantly covered under the hashtags "Fight Against Galamsey" (6 documents), "StopGalamseyNow" (5 documents), and "Notogalamsey" (5 documents).
- Indicates a strong emphasis on military and law enforcement involvement in combating illegal mining.

2. Environmental Activism:

- Total: 25 documents
- Highest coverage under "Notogalamsey" (8 documents) and "Others" (8 documents).
- Reflects a significant focus on grassroots and community-driven efforts to address illegal mining issues.

3. Environmental Justice:

- Total: 29 documents
- Most prominent under "Notogalamsey" (7 documents) and "Others" (7 documents).
- Suggests a substantial concern for fair treatment and involvement of all stakeholders in addressing the impacts of illegal mining.

4. Environmental Degradation:

- Total: 36 documents
- Consistently covered across all hashtags, with the highest numbers in "Notogalamsey" (8 documents) and "Others" (7 documents).
- Highlights the widespread recognition of the environmental damage caused by illegal mining activities.

APPENDIX C

SUMMARY OF THEMES BY HASHTAG

1. **StopGalamseyNow:**
 - **Militarism:** 5 documents
 - **Environmental Activism:** 4 documents
 - **Environmental Justice:** 4 documents
 - **Environmental Degradation:** 4 documents
2. **Fight Against Galamsey:**
 - **Militarism:** 6 documents
 - **Environmental Activism:** 3 documents
 - **Environmental Justice:** 4 documents
 - **Environmental Degradation:** 4 documents
3. **Notogalamsey:**
 - **Militarism:** 5 documents
 - **Environmental Activism:** 8 documents
 - **Environmental Justice:** 7 documents
 - **Environmental Degradation:** 8 documents
4. **BanOnGalamsey:**
 - **Militarism:** 2 documents
 - **Environmental Activism:** 3 documents
 - **Environmental Justice:** 3 documents
 - **Environmental Degradation:** 5 documents
5. **Others:**
 - **Militarism:** 2 documents
 - **Environmental Activism:** 8 documents
 - **Environmental Justice:** 7 documents
 - **Environmental Degradation:** 7 documents