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Relocation Based on Slow-Onset Climate-Induced Environmental Change in Keta, Ghana

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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Coastal indigenous communities in Keta, Ghana, are experiencing resettlement as a result of slow-onset, climate-induced flooding and erosion. Previous researchers have documented the risk of relocation from rapid-onset events, but little is known about the effectiveness of policies developed in response to slow-onset changes. This phenomenological study investigated the ongoing lived experiences of adult household members in Keta who were relocated by the government. Jun's critical theory provided a constructionist interpretive framework to determine whether Ghana's national policy on climate change resettlement adequately meets Rawls's criteria for distributive social justice. Policy documents and transcriptions of interviews with a purposeful sample of 17 family members were thematically coded and categorized into essence descriptions. Results revealed aligned perceptions of an absence of justice or fairness in the allocation of resources to households relocated by the government. Negative experiences characterized all families' resettlement processes. The government's commitment to ensuring basic community welfare was perceived to be poor. Findings highlight the need for social justice to be the primary policy consideration for future allocation of benefits to resettled households. To avoid reaching a tipping point at which prompt governmental intervention will be either compelled or impossible, quantitative studies are needed to guide policymakers in considering the real costs of relocation and the cumulative effects on families and communities. This study provides evidence for public consideration of the severe consequences of injustice in relocation and the need to prevent human rights abuse in the formulation of social, economic, and cultural policies associated with climate-induced resettlement.

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Dedication

I dedicate this dissertation to my wife and children, the entire Alhaj Salifu family,

and the unfortunate residents of Keta communities affected by rising sea levels.

Acknowledgments

Foremost, I thank Almighty Allah for bringing me this far. I know without Him this milestone would not have been achieved. Second, my profound thanks and gratitude goes to my dissertation chair, Dr. Bethe Hagens, whose excellent guidance has inspired me to keep working on this paper with alacrity. The confidence she gave me toward completing this paper is deeply appreciated. Her guidance, direction, and were phenomenal, and words are inadequate to express my gratitude. Most especially, her contribution toward the choice of theories enabled me to focus on and establish the connection between Rawls's theory of social justice and critical theory vis-à-vis my topic. I am also very grateful to Dr. Mark Stallo, my other committee member, who ensured that the content of my dissertation met the needed standards required by Walden University. Peer review is a significant requirement of a Walden University doctoral dissertation. I received consistent feedback on the research problem, literature review, methodology, results, and conclusion from my dissertation committee members, which contributed significantly to the credibility of this study. I cannot forget to extend my appreciations to Dr. Tanya Settles for the role she played as a URR member assigned to ensure my dissertation meets the requirements.

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Municipal Assembly for the valuable assistance given me. I also wish to extend my appreciation to the unfortunate residents of Keta who were affected by the devastating effects of the sea who shared their experiences with me as well as officials of the Keta Municipal Assembly, National Disaster Management Organization (NADMO), and the Ministry of Works and Housing.

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Chapter 1: Introduction to the Study

Little is known about the lived experiences of families who have been relocated as a result of slow-onset climate-induced environmental change in Ghana's Keta basin. Hence, this investigation of the lived experiences of relocated households' addressed the complexities associated with relocation and their contribution to policy development and governmental response in protecting at-risk communities. The study was designed to explore whether Keta's relocation process adequately met Rawls's (1971, 1999) criteria for social justice and lessons learned from households' lived experiences can inform policy decisions for future relocation plans. Rawls's theory of social justice and the critical theory conceptual framework of Jun facilitated an understanding of Keta's relocation process. A criterion purposeful sampling design was used to generate in-depth and information-rich data from those who had directly experienced the phenomenon. Findings revealed issues of human rights in the context of social, economic, and cultural concerns associated with resettlement, which when addressed, can contribute to positive social change.

The Keta Sea Defense Project (KSDP) began in 2003 as a response to the constant sea erosion resulting from rising sea levels, which endangered the lives of about 500,000 people over the past 40 years (Danquah, Attippoe, & Ankrah, 2014). The communities affected by the tidal waves included Horve, Havedzi, Adzido, Vodza, Kedzi, Fuveme, and some parts of Keta, which all fall under the main town, Keta, in the Volta region of Ghana (National Disaster Management Organization [NADMO], 2016). These communities have lost their buildings to coastal erosion, which has also affected natural fish landing sites and degraded the coastal environment (Oteng-Ababio, Owusu, &

Appeaning Addo, 2011). In 2000, the central government started building a sea defense

wall with the aim of reclaiming 272.2 hectares of the land lost to the sea and began to

relocate about 1,200 households within the affected communities (Danquah et al., 2014).

The first 100 housing units of resettlement were completed in 2003, long before the sea

defense wall was completed in 2014. Three of the affected communities have since been

resettled in three separate communities—Vodza, Adzido, and Kedzi—which are an

average walking distance of 1 mile apart from one another. The NADMO (2016)

indicated that 573 housing units had been constructed accommodating the same number

of households between 2003 and 2015 (see Figure 1). These new communities were

situated on part of the land reclaimed from the Keta Lagoon, about 1 mile from the coast.

The central government intends to continue the resettlement program when funds become

available (NADMO, 2016).

Figure 1. Newly relocated communities in Vodza (left) and Adzido (right). Photos by the
author.

The areas where residents previously lived have been taken over by sea-water and

a vast stretch of fallow land created through the reclamation of 160 hectares of previously

inundated coast. There is virtually no physical infrastructure: no buildings, trees,

businesses, or schools, only the abandoned buildings close to the sea, including the deteriorating Fort Prinzenstein (see Figure 2). The large family compound houses reminiscent of the older traditional dwellings, once a key feature of the landscape, are now conspicuously missing at the site.

Figure 2. Reclaimed land of former settlements previously inundated by coast (left) and deteriorated structure of Fort Prinzenstein close to the coast (right). Photos by the author.

Relocating communities from their indigenous settlements poses many challenges to the affected communities and the relocating body, the central government. Edwards (2013) suggested that relocation resulting from disasters and development-induced resettlement expose affected "communities to risks of impoverishment as a result of loss of livelihoods, resources, and human rights" (p. 53). The current study was designed to investigate the lived experiences of former residents of the affected communities in order to gain a deeper understanding of the complexities associated with relocation.

At the time these communities were relocated (2003 to 2016), the central Ghanaian government had no official policy framework on permanent relocation. The government—through the Ministry of Works and Housing, NADMO, and the Keta Municipal Assembly—managed to put together various policies, legislative acts, and plans from past resettlement efforts in Ghana caused by natural disasters such as rainstorms, flooding, and construction, such as dams and mining, to get these communities settled.

Prior to relocation, the Keta community experienced unprecedented flooding and loss of property. Following relocation, the communities experienced breaks in family and cultural ties, human rights violations, and some level of dissatisfaction with their new environment (Danquah et al., 2014), which presents issues of social justice. Maldonado, Shearer, Bronen, Peterson, and Lazrus (2013) averred that forced relocation and the inability of government to support adaptation strategies may result in loss of community and culture, economic decline, health problems, increased tribal poverty, and injustice.

The need is great to develop more comprehensive and sensitive resettlement policies in Ghana, and Keta provided a unique opportunity to gain a deeper understanding of the lived experiences of the affected communities. There were no previous first-person narratives of the relocation experiences. Based on the findings from this study, policy makers can better understand the complexities associated with climate-induced resettlement and adaptation, and assist in legislation and policy decision making on a range of appropriate adaptation strategies for future resettlement plans.

Chapter 1 includes the problem statement, the purpose of the research study, the research questions, the theoretical foundations that inform this study, the nature of the

study, and definition of terms relevant to this study. Also addressed are assumptions, scope, and limitations of the study and the significance of the study

Background

Climate change, especially rising sea levels, poses a challenge to the sustainability and livability of coastal communities globally (Appeaning -Addo & Adeyemi, 2013). More than 70% of beaches across the world are experiencing coastal erosion (Appeaning Addo, Walkden, & Mills, 2008). According to the Intergovernmental Panel on Climate Change (IPCC; 2007), sea level rise will affect low-lying coastal areas with large populations in Africa toward the end of the 21st century, and costs of adaptation could amount to at least 5-10% of gross domestic product (GDP) in affected nations. Accelerated sea level rise is, therefore, one significant coastal management challenge most coastal nations face, especially in developing countries where there is lack of geospatial data (Appeaning Addo, 2013).

From 1964 until 2003, when the first resettlement took place, tidal waves had continually wreaked havoc on Keta and its surrounding communities, submerging buildings and causing severe damage to property (Danquah et al., 2014). Erosion and flooding remain a perpetual phenomenon in the Keta area. Setrodjie (2015) reported that dozens of people have been displaced at Horve and Havedzi in Keta by tidal waves that washed away a number of homes. Appeaning Addo, Jayson-Quashigah, and Kufogbe (2011) showed that coastal erosion, flooding, and shoreline retreat are serious problems in Ghana's coastal areas. The NADMO (2007) identified the Keta area as one of the 24 coastal erosion hotspots in Ghana where erosion has persisted for more than a century without any permanent solution. Despite the need to find a lasting solution to the

problem, the government's attempts to solve the problem of flooding and erosion resulting from sea level rise were ad hoc measures that did not solve the problem (Boateng, 2012).

Keta is not the only community in Ghana facing this problem. Appeaning Addo (2013) found that climate change and accelerated sea level rise will affect the western, central, and eastern coastal parts of Accra. Several approaches to control coastal erosion have been tried, including hard engineering (revetment) and soft mitigation options such as dune revegetation. Relocation has been considered a viable alternative to either using a hard or soft engineering method (Oteng-Ababio et al., 2011). Voluntary relocation, specifically, is the willingness of the people to relocate due to worsening disaster impact scenarios (King, Millar, Boon, and Keogh, 2014). A more detailed discussion on voluntary relocation appears in Chapter 2. The NADMO (2016) recommended relocating of Horvi, Fuveme, Havezdi, and some parts of Keta (see Figure 3) that are also threatened by erosion and floods, putting lives and property at risk. Indeed, globally, "climate change will force millions of people to relocate" due to rising sea levels (Edwards, 2013, p. 52).

Reflecting Edwards's (2014) assertion, the voluntary relocation of the affected Keta communities in 2003 provides one example of a resolution to the problem of coastal erosion. Relocation, however, can result in severe stemming of social and cultural ties with neighbors (Danquah et al., 2014) and thus presents a social justice issue. Voluntary relocation triggered by slow-onset climate-induced environmental change is a new area of study lacking scholarly attention (King et al., 2014; Schenck, 2014). This study addressed the knowledge vacuum related to how local and central governments can

effectively address the needs of their communities threatened by rising sea levels based on the lived experiences of Keta residents.

Problem Statement

Little is known about the lived experiences of family households that have been relocated due to slow-onset climate-induced environmental change in Ghana. As of 2016, Ghana had no permanent national, regional, or district department or agency mandated to address the concerns of communities threatened by slow-onset climate-induced erosion and flooding. As a result, the central government undertook the voluntary relocation of the first resettlement of the affected communities of Keta as an ad hoc measure to address only this situation.

Although relocation has been viewed as one adaptation response to rising sea levels (Edwards, 2013), reports since that time have shown that some affected communities in Keta Municipality have defied calls to relocate despite having been threatened by tidal waves (Allotey, 2015). Unaddressed in literature is data on Keta citizens' experiences of the relocation process, specifically information on the lived experiences of residents that could be incorporated into desirable governmental responses to future slow-onset climate-induced displacements as well as future relocation resulting from other circumstances.
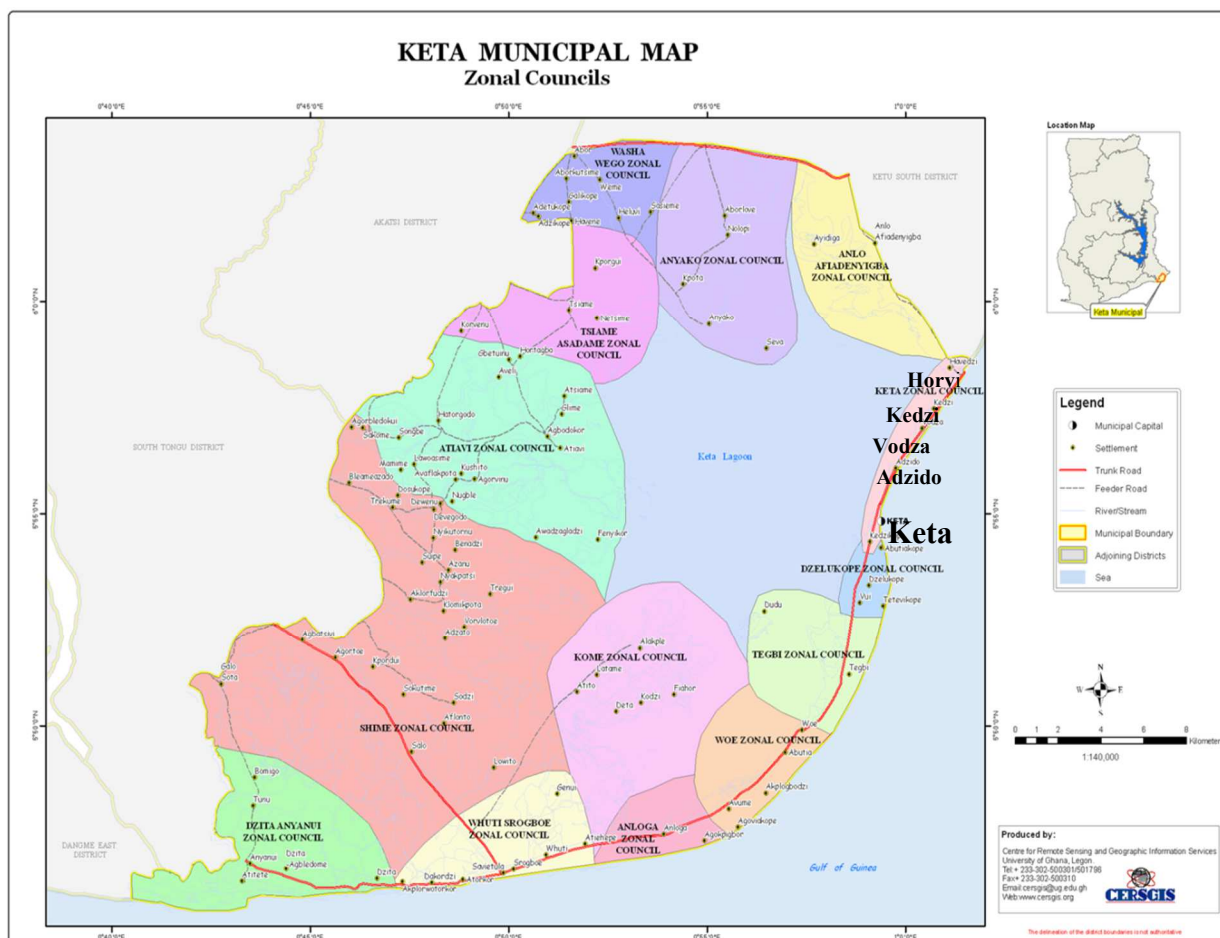
Figure 3. Map of Keta Municipal showing the research communities and other communities threatened by erosion and flooding. Source: Keta Municipal Assembly.

Climate change and human migration are two important issues that require prompt, appropriate responses from national and international authorities (Naser, 2013). The Keta area is experiencing severe environmental changes and has been considered one of the worst parts of Ghana in terms of centuries of sea erosion (NADMO, 2007). The current level of slow-onset climate-induced environmental changes presents the government with several adaptation methods, including the construction of *groynes* (protective barriers) or relocation (Oteng-Ababio et al., 2011). Warner (2009) distinguished slow-onset climate-induced environmental change from other forms of

environmental changes such as rapid on-set environmental change. A rapid onset event such as a flood or an earthquake is an observable natural disaster, while a slow onset event is a gradual process such as rising sea level, severe drought, and erosion (Warner, 2009). The differences between slow-onset climate-induced environmental change and other genres of environmental change are covered later in this chapter.

Nevertheless, migration linked to environmental changes poses challenges to institutions and policies that are not designed to cope with complex issues and uncertainties about new social, environmental, and migration patterns emerging as the result of resettlement (Warner, 2009). Because climate-induced environmental change will force millions of people to relocate worldwide (Edwards, 2013), it is significant that the Ghanaian government must rapidly adopt ways to effectively deal with the situation which is already taking place. Effective policy responses to environmental displacements and migration can only be developed if there is an in-depth understanding of the link between climate change, human environment relations, and migration (Oliver-Smith, 2012). In this regard, the only way the Ghanaian government can effectively plan for future challenges is to learn from the lived experiences of communities that were relocated due to slow-onset climate-induced environmental change, in this case, Keta. Voluntary relocation caused by disaster exposes residents to risk of impoverishment and loss of livelihoods, raises major ethical and human rights issues, and results in inequitable distribution of benefits and losses—thus resulting in issues of social injustice (Edwards, 2013; Nayak, 2015).

Effective governmental response to vulnerable communities threatened by rising sea levels in Ghana demands the coordination of various organizations. Nevertheless,

organizations working on the Keta resettlement project in 2003 including the Ministry of Works and Housing, NADMO, and the Keta Municipal Assembly have displayed a meaningful gap in literature: Governmental response to resettlement resulting from natural disasters is still poorly understood at the national level, especially by state agencies. Moreover, there is little evidence to show that the magnitude of future resettlement challenges is taken into consideration (Kolmannskog, 2012; McDowell, 2013). Although similar climate-related relocation has occurred in other parts of the world (Dun, 2011; King et al., 2014; Schenck 2014), policy makers and researchers have not examined the phenomenon from the perspectives of social construction and social justice of the relocated communities.

Purpose Statement

The purpose of this study was to increase awareness and understanding of the difficulties associated with the relocation of communities in Keta, Ghana, affected by rising sea levels. This qualitative phenomenological study investigated the lived experiences of adult family members who were former residents of the affected communities with two objectives: (a) to better understand the complexities associated with resettlement, and (b) to suggest the extent to which their experiences can contribute to policy development and governmental response in developing a national relocation plan in Ghana for communities threatened by rising sea levels in the future.

Research Questions

The central question for this study was as follows:

RQ: Does Ghana's national resettlement policy on climate change adequately meets Rawls's criteria for social justice, based on experiences of relocated adult family members of households from Keta?

Subquestions for this research were:

SQ1: What are the perceptions of adult family members of their experiences of relocation and of the situations that affected their resettlement?

SQ2: In what ways, if any, have family households experienced complexities in their resettlement?

SQ3: In what ways, if any, has the resettlement program affected family households' human rights?

SQ4: In what ways, if any, has resettlement affected family households' livelihoods?

SQ5: What are the perceptions of relocated adult family members of the challenges government faced during the resettlement process?

Theoretical and Conceptual Framework

The theoretical approach adopted for this proposed study is Rawls's theory of distributive social justice. The conceptual framework is critical theory (Jun, 2012). I explored the two ways in which Ghana's resettlement policy did or did not address the Rawls criteria for distributive social justice vis-à-vis the interpretive lens of critical theory, which focuses on public administration in the context of social construction and provides a contemporary positive social change extension of Rawls's seminal theory (Jun, 2012).

Rawls's theory of social justice (1971) was built on the premise that the rights of everyone to basic liberty must be met while ensuring equal opportunity for economic and social positions. The concept of rights is a set of principles that are universally applicable and cannot be applied differently; thus, the desire to be neutral is inextricably linked with the desire to recognize rights and freedom (Rawls, 1999). Rawls believed that social and economic inequalities must be addressed by ensuring that they meet the greatest benefit of the disadvantaged in society as well as equality of opportunities for public positions.

The theory is thus relevant to the current study because the issue of resettlement is a fundamental social justice issue that is inextricably linked with voluntary movement that affects people's social, cultural, political, and economic livelihoods. The main objective of resettlement resulting from slow-onset climate-induced environmental change is to provide affected communities with livelihoods as close in value to their former lives as possible, if not greater value. On the contrary, development projects initiated for resettlement may end up creating poverty, what is termed as "process-related poverty" or "the new poor" (Bala, 2006). The resistance and indignation of the affected communities of the Keta resettlement program (Allotey, 2015) can be characterized as a manifestation of the lack of social justice in the entire process of resettlement policy and public administration (Rawls, 1971). Detailed discussions of the characteristics of the theory are covered in Chapter 2.

Extending Rawls's (1971) theory of distributive justice to the study at hand, a successful resettlement program would be based on expanding social and economic opportunities by addressing constraints that inhibit people's choices for making a decent living. A resettlement program would thus focus on the rights of individuals and

distributive justice as propounded by the theory in order to determine the quality of life of the people.

The conceptual framework of critical theory (Jun, 2012) strongly connected to the theory of distributive social justice. Keta resettlement was undertaken in the context of national policymaking. The resettlement program epitomizes ontological and epistemological considerations that can be addressed through a critical theory approach. For this reason, I used the interpretive lens of critical theory as my analytical framework. As stated previously, Jun's (2012) focus on public administration in the context of social construction provides a contemporary extension of Rawls's seminal theory. The social construction approach depends heavily on interpretative and critical theory for studying public administration (Jun, 2012, p. 46).The interpretative perspective is another way of understanding complex phenomena based on the views of citizens by directly focusing on their experiences, dialogue, and discourse, and interpreting their language and stories (Jun, 2012). The concept of social construction is provided in detail in Chapter 2. Applying this interpretive lens to the perspectives of a sample of relocated individuals led to a deeper understanding of the lived experiences of the affected communities than would be possible with basic ethnographic descriptions of the phenomenon.

Nature of the Study

The phenomenological approach was appropriate because of its focus on describing how people experience a phenomenon by indicating "how they feel about it, perceive it, describe it, remember it, judge it, make sense of it and discuss it with others" (Patton, 2002, p. 104). Interviews with the adult family members elicited perspectives on the lived experiences of a real life situation of resettled family households affected by

slow-onset climate-induced environmental change, specifically in Keta, Ghana. The methodology and other issues related to conducting this research including data collection and analysis procedures are further discussed in Chapter 3.

Definitions

Adaptation: The adjustment in natural or human organizations as a response to climate stimuli or their effects which reduces harm or searches for beneficial options (United Nations Office for Disaster Risk Reduction, 2007).

Affected community: A total disruption in the functioning of a community, involving widespread human, material, economic, or environmental losses and effects that are beyond the ability of a community to cope using its own resources (United Nations Office for Disaster Risk Reduction, 2007).

Climate change: A change in average rainfall or average temperature of a region or city (NASA, 2015).

Coastal erosion: The removal of materials from the sea by wave action and tidal current usually causing landward retreat of the coastline (British Geological Survey, 2012).

Disaster: A sudden catastrophic event that seriously disrupts the functioning of a community as a result of human, material, economic, and environmental losses that are beyond the community's ability to cope (International Federation of Red Cross and Red Crescent Societies, n.d.).

Environmentally induced migration: People or communities agreeing to leave their original homes due to compelling reasons of rapid or continuous change in environment that severely affect their living conditions (Warner, 2009).

Flooding: A process when sea water overflows onto dry coastal land (National Geographic Society, 2015).

Groynes: Cross-shore structures designed to deflect near-shore currents within an estuary or long-shore transport on open beaches. These structures are usually used together with revetments to provide high level of erosion protection (Scottish National Heritage, n.d.)

Relocation: A process where by a community's assets, housing, and public infrastructure are constructed in another location (World Bank, 2010).

Resettlement: The reconstruction of houses and community structures and restoration of livelihoods (Edwards, 2013).

Response: Provision of emergency services and public assistance during and after a disaster so as to save lives and property, promote public health and safety, and meet the basic subsistence needs of the individuals affected (United Nations Office for Disaster Risk Reduction, 2007).

Sea defense: Measures taken to protect the shoreline using groynes and flood controls (Appeaning Addo et al., 2011).

Assumptions, Scope, and Limitations

Several assumptions are relevant to studying the entire resettlement program in Ghana. First, I assumed resettlement plans will be required for future resettlement of communities threatened by rising sea levels. As Oteng-Ababio et al. (2011, p. 431) noted, the coastline of Ghana is generally low lying and below 30m contour above sea level, making it prone to coastal erosion. The second assumption was that residents would have different experiences in terms of the severity of the shore erosion and how they perceive

their current settlement site vis-à-vis the implications for distributive social justice. Third, I assumed I could withhold bias during data gathering and interpretation phases. Fourth, I assumed that interviewed adult family members would be willing to speak to me with honesty and in accurate detail about this emotional and distressing subject matter. The ethical dimensions of the study and the intention to avoid causing any further distress or harm to the research participants are discussed in detail in Chapter 3.

The scope of the study was limited to (a) the first phase of resettlement of three communities of Keta that were affected by rising sea levels, and (b) their lived experiences after they were permanently relocated to Adzido, Vodza, and Kedzi from 2003-2016. Hence, it is not possible to generalize the findings of this study to other communities. The experiences of the resettled people, however, provided a critical framework for policy development that is likely to be transferable throughout West Africa and other parts of the world.

Boundaries

The delimitations of this research are from the first phase of relocation in 2003 until 2016. The document review was directly related to first phases of relocation. I briefly reviewed literature on other parts of the world that had experienced the same phenomenon to see how relocatees were treated, but I did not collect narratives beyond Keta. Household members had different meanings and experiences of the same phenomenon and the way they perceive social justice. Hence, my sample of nine family households allowed me to reach saturation for these particular communities.

Significance of the Study

This study was intended to bridge the gap in understanding the attendant complexities of slow-onset climate-induced resettlement. A study of the lived experience of communities affected by climate change is relatively new in the research literature. Researchers have not given critical policy attention to the sea level rise in West Africa. Because this was the first time a government in the Western Coast of Africa (Ghana) had relocated communities due to slow-onset climate-induced environmental change, this qualitative study contributes to knowledge in the field of climate-induced resettlement and adaptation. Similarly, the findings can assist policy decision making on a range of appropriate adaptation strategies for future resettlement plans, including a socially just relocation model for future relocation plans within West Africa-and Ghana, in particular. This study could serve as a yardstick for future researchers who examine the lived experiences of other communities that were permanently relocated as a result of slow-onset climate induced environmental change. Furthermore, the findings reveal issues of human rights in the context of social, economic, and cultural concerns associated with resettlement, thereby highlighting social justice as a primary consideration by government in the enactment of more positive and informed policy positions for future resettlements.

Summary

This phenomenological study of complexities associated with permanent relocation provided a better understanding of the lived experiences of communities so affected by rising sea levels. The study was built on the distributive social justice theory (Rawls, 1999) and Jun's (2012) framework of critical theory in the context of the social

construction of experienced reality. Chapter 1 consisted of a description of the study background, a problem statement, the purpose of the study, research questions, the nature of the study, and theoretical framework, and the definitions relevant to the study. Additionally, assumptions, scope, limitations, and significance of the study were addressed. Chapter 2 is a review of the relevant literature. The gaps and deficiencies in the literature are identified. Also, I examine the theoretical and conceptual frameworks that informed this study as well as the types of displacements, effects of relocation, and adaptation strategies. Chapter 3 highlights the description of the study design, the unit(s) of analysis, procedures, assessments, as well as the description of the methodology of this qualitative phenomenological study. In Chapter 4, I discuss the data analysis and results, data collection, unusual circumstance, codes to themes, research findings, discrepant cases, and evidence of trustworthiness. Chapter 5 presents an interpretation of findings, and contributions to the scholarly literature on relocation due to slow-onset climate-induced events.

Chapter 2: Literature Review

Introduction

Research Problem and Purpose

Three communities (Adzido, Vodza, and Kedzi) in the Keta Municipality comprising 573 households are the first Ghanaian settlements to be relocated due to slow-onset climate-induced environmental change (Danquah et al., 2014). Other communities, including Horvi, Puveme, Havezdi, and some parts of Keta, require relocation for similar slow-onset environmental events (NADMO, 2016). The coastline of Ghana is being affected by rising sea level due to climate change, with the Keta area identified as highly vulnerable to severe erosion (Boateng, 2009). Though permanent relocation studies appear in the literature, no researchers have addressed the lived experiences of relocated family households affected by slow-onset climate-induced environmental change in Ghana. This study was intended to bridge the research gap created by the lack of literature on this topic. The findings from this qualitative phenomenological study were anticipated to increase current knowledge and understanding of the complexities associated with relocation. In addition, findings might assist in policy development and governmental response in developing a national relocation plan in Ghana for future communities threatened by rising sea levels.

Literature Synopsis

A thorough review of existing scholarly literature was conducted on the theory of social justice with emphasis upon displaced and relocated communities. Literature on the social construction of government intervention -tipping points-was reviewed in the context of the conceptual framework, critical theory. In addition, five key concepts

relevant to the relocation process of Keta were researched: types of displacements, adaptation, effects of relocation, environmental considerations, and relocation and social justice. This literature review covers several factors that have driven relocation due to slow-onset climate-induced environmental change: erosion, flooding, and drought. According to the Intergovernmental Panel on Climate Change (IPCC; 2007), "Sea level rise will affect low-lying coastal areas with large populations in Africa towards the end of the 21st century whose cost of adaptation could amount to at least 5-10% of gross domestic product (GDP)" (p.11).

The entire relocation process of Keta was the result of slow-onset climate-induced environmental change. Warner (2009) categorized climate-induced and environmentally induced migration into rapid-onset and slow-onset displacements. Using this classification, the Keta relocation falls under slow-onset displacement. Permanent relocation of affected communities has been considered as one suitable adaptation strategy to slow-onset climate-induced environmental changes (Edwards, 2013). Internationally, far less governmental policy attention is directed toward slow-onset events, either because they are historically uncommon or because there is lack of funds to execute remediation projects or to relocate communities (Boateng, 2012).

Within the framework of rapid or slow-onset climate-induced displacements, governmental policy makers can implement three adaptation strategies including: relocation, construction of protective barriers, or no action (Boateng, 2012; Oteng-Ababio et al., 2011).Huntington, Goodstein, and Euskirchen (2012) proposed that governmental response to slow-onset climate-induced environmental change will ultimately reach a point— a tipping point—where prompt governmental intervention is

either compelled or impossible. Keta's relocation epitomizes a tipping point as governmental actions were executed only after perpetual devastations and threatening of lives.

Relocation, although significant, most often does not solve the problems of communities affected by slow-onset climate events but exposes populations to several risks. According to Burkett (2015, p. 77), the most common risks associated with displacement and resettlements are unemployment, loss of homes, marginalization, food insecurity, unavailability of common property, and social disintegration. Risks associated with resettlement are issues of social justice. As Skillington (2015) noted, there is no legal protection for people affected by climate change. This in itself illustrates global discrimination and injustice toward populations affected by climate-related events.

Chapter Preview

In Chapter 2 I discuss the literature search strategies and scholarly findings on the Rawls theory of social justice and the social construction (Jun, 2012) of critical theory. The review also synthesizes contributions from key authors on the theoretical framework of relocation and social justice and the conceptual framework of government's role in relocation vis-à-vis the tipping point. Key concepts relevant to the Keta relocation process are discussed including climate-related causes of relocation, types of displacements, effects of relocation, and relocation and social justice. The chapter concludes with an overview of the phenomenological method used in the study and a chapter summary.

Literature Search Strategy

This research topic has broad social, environmental, and political implications. Throughout my literature search, it became obvious that not much literature exists on slow-onset climate-induced events and the lived experiences of permanent relocation. As a result, gathering literature on voluntary relocation, slow-onset climate-induced environmental relocation, and the lived experiences was achieved through a holistic process. Because of the scarcity of literature on relocation due to climate-induced events, I extended my search to development-induced resettlement as well. During the literature search process, important resources both electronic and hardcopies were read and analyzed.

Within the Walden University library I searched the following databases: Academic Search Premier, Business Sources Premier/Complete, Political Science Complete, Sage Complete, Education Resources Information Center (ERIC), ProQuest Dissertation and Theses Databases, Sage Online Educational Journals, Google Scholar, PsychARTICLES, and the library subject area of policy, administration, and security to identify resources pertaining to the research topic. The key words evolved from the literature review process. For example, the use of *climate change* was broadly employed and focused on the research by using *lived experience*, *governmental role*, and *social justice*. To ensure that scholarly resources were used, searches were limited to full text and *peer reviewed*. Only publications from 2005 to 2016 were reviewed until it was clear that only small increments of new information or relevance would be gained from the search, thus reaching a point of saturation.

Theoretical Framework

The theoretical approach adopted for this study was Rawls's (1971, 1999) theory of distributive social justice. A society that protects the rights and freedom of its people and ensures the provision of greatest benefit to the least advantaged could be considered just. The theory is built on two major propositions:

1. The rights of everyone to basic liberty must be met.

2. Social and economic disparities must be arranged in a way that is expected to be to everyone's advantage, and public positions should be opened to all.

Role and Subject of Social Justice

Understanding how members of disaster-affected communities conceive social justice is of paramount importance in promoting their adaptation and disaster recovery process. Rawls (1999) described social justice as the principles that govern the distribution of rights and duties as well as the appropriate distribution of benefits and burdens of social life. Rawls's theory of social justice is built on the premise that the rights of everyone to basic liberty must be met while ensuring equal opportunity for economic and social positions. The theory was thus relevant to the current study because the issue of resettlement is a fundamental social justice issue that is inextricably linked with voluntary movement that affects people's social, cultural, political, and economic livelihoods. The main objective of resettlement due to slow-onset climate-induced environmental change is to provide affected communities with livelihoods as close to their former lives as possible, if not better. On the contrary, development projects initiated for resettlement may end up creating poverty, what is termed as process related poverty or the new poor (Bala, 2006).

The two basic propositions of the theory are built on justice and fairness. Justice is the fundamental virtue of social institutions. The justice of a social system is dependent on how basic rights and duties are apportioned and on economic opportunities and social conditions in the society. These principles regulate all agreements and specify the kinds of social cooperation and governmental establishment which Rawls (1999) labeled as *justice* and *fairness*. The principles of justice are thus the result of fairness consensus or negotiations. Hence, any theory, laws, and institutions that are not just should be reformed or abolished (Rawls, 1999). The theory postulates that every individual has inviolability about justice where the ultimate welfare of society cannot replace. To this end, justice does not endorse the loss of freedom of a population even when most of the population considers that loss to be right. Additionally, justice does not accept the merits enjoyed by the majority of the people to overshadow the sacrifices imposed on the few (Rawls, 1999). In a just society, the freedom of all citizens is considered equal and unquestionable, and the rights secured by justice should not be compromised by political negotiations or societal interests.

As the first virtues of human activities, truth and justice are inextricably linked and cannot be compromised. In a society, individuals are concerned about how the benefits produced by their collaborative efforts are distributed and thus prefer a larger to a lesser share. According to Rawls (1999), principles are needed to determine the division of advantages and consensus on proper distribution of shares. These *principles of social justice* show how rights and duties in society are assigned and define the proper distribution of benefits and burdens of social cooperation.

The voluntary relocation of Keta residents affected by slow-onset climate-induced environmental change should ensure their rights and freedom, as well as meet their social expectations. As Rawls (1999) pointed out, the plans and activities of residents need to be carried out successfully without anyone's legitimate expectations being severely thwarted.

The theory, however, has some limitations regarding rights and freedom, which Rawls (1999) agreed are inherent constraints. He recognized that the inability of one to take advantage of his or her rights and opportunities due to poverty, ignorance, and unavailability of resources, itself acts as a constraint in the realization of freedom in its true spirit.

Literature Synthesis and the Theory of Justice Applied to This Research

No literature on the theory of social justice as applied to relocation in Keta, Ghana, was identified. This gap was addressed in this study through the analysis of the only Ghanaian communities to have relocated due to slow-onset climate-induced environmental change. Though Ghana is not specifically addressed within the social justice literature, there is relevant comparative literature on the theory of social justice.

Bala (2006, p. 7) conducted qualitative reviews on several development projects in India that resulted in resettlements (construction of dams, conservation of wildlife and forests, promotion of tourism, industrial growth, and slum clearance). His objective was to find out whether the resettlement projects met Rawls's (1971, 1999) concept of distributive social justice. Bala found a combination of social justice issues that are relevant to this study. First, although there are some policy frameworks on resettlement, none of the policies addressed the issues of the rights of resettlers or fulfill the

expectations of affected people. Second, Bala found that resettlement processes led to gross injustice and social violence that affected people's rights and interests and resulted in deprivations and marginalization of the affected people.

Bala (2006) did not address the causes and types of resettlement found in Keta. The types of resettlement he analyzed in India were involuntary and resulted from development projects that displaced people. The case of Keta, Ghana, however, is voluntary resettlement resulting from environmental change. Still, Bala's work revealed that the theory of social justice was valuable in framing a public relocation process.

Rationale for the Choice of the Theory

Voluntary relocation is a fundamental social justice issue that affects people's social, cultural, political, and economic livelihoods. The main objective of resettlement due to slow-onset climate-induced environmental change is to provide affected communities with livelihoods as close to their former lives as possible, if not better. On the contrary, development projects initiated for resettlement may end up creating poverty, what Bala (2006) termed process-related poverty or the new poor. The resistance and indignation of the affected communities of the Keta resettlement program (Allotey, 2015) can be characterized as a manifestation of the lack of social justice in the entire process of resettlement policy and public administration (Rawls, 1999). To this end, extending Rawls's (1971) theory of distributive justice to the study at hand, a successful resettlement program would be based on expanding social and economic opportunities by addressing constraints that inhibit people's choices for making a decent living. A government resettlement program would thus focus on the rights of individuals and distributive justice as propounded by the theory in order to determine the quality of life of

the people. As Rawls (1999) pointed out, "The rights secured by justice are not subject to political bargaining or societal interest" (p. 4). Voluntary relocation of Keta communities was a contractual agreement between the communities and the central government. Hence, the agreement must advance the interest of the communities. According to Sementelli (2005), contractual role obligations are used in studying justice or fairness which Rawls (1999) refers to as the way parties are duty-bound to fulfill the contractual agreements.

Conceptual Framework

Key Statements and Definitions

The conceptual framework adopted in this study to interpret the concept of relocation and the theory of social justice was critical theory. Critical theory was developed in Frankfurt in the 1920s by members of the Frankfurt Institute for Social Research (Wellmer, 2014). The theory is so popularly associated with the Frankfurt school because of the association of the research group with the location (Carr, 2005). Members of the institute included Max Horkheimer, Theodor Adorno, Friedrich Pollock, Leo Lowenthal, Herbert Marcuse, Otto Kirchheimer, Erich Fromm, Franz Neumann, and Walter Benjamin (Carr, 2005).

According to Carr (2005), the propositions of critical theory as developed by the Frankfurt school follow:

- The theory acts as a guide for human actions. It helps in enlightening society to determine what their true interests are and frees society from self-frustration of conscious human action.

- The theory has cognitive content and is a form of knowledge.

- The theory differs from theories in the natural sciences. Natural science theories are objectifying while critical theory is reflective.

Critical theory is a conceptual framework that offers a theoretical lens to help in examining political, institutional, cultural, and social dimensions of complex phenomena. For this reason, it is significant to understanding the problem of public policy (Jun, 2012). Jun stated that public administration grounded in critical theory's lens supports efforts geared toward effecting fundamental institutional change and allows blending of institutional and human-value issues.

The objective of critical theory is to produce a certain form of knowledge that entails freedom of others through the assessment of perceptions and ideology which will go a long way to free people from circumstances that enslave them (Carr, 2005). To this end, the focus of critical theory is not to copy reality but change it; a theory that is critical should be explanatory, practical, and normative at the same time (Horkheimer, 1976). In buttressing Horkheimer's criteria of a critical theory, Bohman (1996) stated that a critical theory must state what is wrong with current social reality, identify actors who can change it, and provide clear issues for criticism and practical solutions for the future (p.190).

The critical theory framework holds that because the choice of a design or theory and the analysis of facts in critical theory are influenced by the personal values of the researcher's representation of social reality, it is significant to interpret data collected from the research. In this regard, the interpretative and critical perspectives are inextricably significant in contributing alternative approaches to the issues of public

policy (Jun, 2012, p.51). Also, Jun has proposed that critical theory takes into consideration the strengths and limitations of multiple explanatory perspectives and, hence, incorporates them into a broader and more inclusive interpretative framework.

The critical theory approach helps to explain complex phenomena based on the points of view of stakeholders by focusing on their experiences, values, dialogue, and discourse by interpreting their language and stories (Jun, 2012, p.46). Because the interpretive approach is well grounded in phenomenology, it offers ideas that help to understand social phenomena. Particularly, it helps explain the social world from the viewpoints of the actors in the situation. Jun (2012) suggested that understanding a social reality begins with interpretation.

The concept of social reality is well grounded in the social constructionist approach, which applies an interpretative critical theory framework to understanding public policy (Jun, 2012). The social construction approach focuses more on social reality, that is, the reality that is constructed based on people's ideas and interactions. Jun (2012) argued that there are multiple truths and realities constructed and experienced by people (p.55). Hence, social construction concerns itself with how people construct and attach meanings to their experiences and how the meanings become actualized aspects of public policy (p.55). Jun's explanation of how critical theory is intertwined with the social construction and interpretative approaches is consistent with the approach taken by Carr (2005), who suggested that critical theory rejects any self-evident nature of reality and accepts various ways in which reality is socially constructed and distorted (p. 470). A limitation of the critical theory (previously discussed in Chapter 1) is that analyzing of facts may be influenced by the researcher's subjective values.

Application of the Critical Theory/Social Justice Conceptual Framework

I was unable to identify any current literature on critical theory as applied to relocation in Keta, Ghana. Hence, this study addressed this gap, particularly as it applies to social justice issues and government policies for future Ghanaian communities to be relocated as a result of slow-onset climate-induced environmental change.

Chamberlain's (2012) research on the lived experiences of paid domestic workers in New York provided an initial framework for how this study could be organized. Using both the theory of social justice and critical theory as a conceptual framework, the research explored what ideas about justice could be learned from the experiences of these workers. Using the methodology of qualitative phenomenology in which a paid domestic worker was extensively interviewed ($N = 1$), and document review to explore the theoretical and political possibilities of the theory of justice, Chamberlain found that apart from not being adequately remunerated, paid domestic workers are verbally and physically abused. Such maltreatments are socially unjust. While Chamberlain's study in no way addressed resettlement or climate-induced environmental events, his use of the key concepts of lived experiences and the application of social justice and critical theory provided a precedent for this study.

Rationale for the Choice of the Critical Theory Conceptual Framework

The current study benefited from the critical theory conceptual framework as it offered a theoretical lens that helped to understand complex social phenomena and the problems of public policy as well as support efforts geared toward effecting fundamental policy changes (Jun, 2012). The ontological and epistemological considerations exemplified by this study can only be addressed through a critical theory approach. A

critical theory conceptual framework is inextricably linked with the social construction and interpretative approaches. The social construction approach focuses more on social reality based on the experiences of people and how people construct and attach meanings to their experiences. To this end, the social construction approach was valuable in framing the lived experiences of the relocated Keta communities.

In the same vein, the interpretive lens of critical theory was useful as an analytical framework for this study. As discussed previously, the social constructionist approach depends on the interpretative approach. The interpretative perspective is "another way of understanding complex phenomena based on the views of people by directly focusing on their experiences, dialogue, and discourse and interpreting their language and stories" (Jun, 2012, p. 46). The analysis of literature clearly showed that neither the critical theory nor the theory of social justice alone could capture the lived experiences of relocated communities of Keta, but each complemented the other to enhance the understanding of lived experiences of the relocated communities due to slow-onset climate-induced environmental change.

Key Constructs

Climate-Related Causes of Relocation

The purpose of this phenomenological study was not to increase knowledge of climate change per se but to understand the lived experiences of relocated residents of Keta affected by climate change. The IPCC (2007) projected that climate change will cause large-scale displacements of populations worldwide, with Africa and Asia being the worst affected. Several studies have shown that climate change is the cause of slow-onset displacements, as is the case in Keta (Assan, 2012; Danquah et al., 2014; Oliver-

Smith, 2012). A growing body of literature has shown that the coastline of Ghana has significantly changed over the years in response to climate and resulting flooding and erosion; the worst affected area is Keta (Anim, Nkrumah, & David, 2013; Boateng, 2006; Oteng-Ababio et al., 2011). If the climate change variables of erosion and flooding persist, several towns similar to Keta could be severely affected.

In 2012 Boateng conducted case studies of coastal erosion of the coastline of Ghana and found high rates of coastal erosion widely spread along the coastline of Ghana. Significant damages occurred to settlements on the eastern coast of Keta. Boateng found that 4,974 hectacres (ha) of land was lost in the 107 years from 1895 to 2002, equivalent to an average rate of loss estimated to be about 46.5 ha per annum and an average rate of recession estimated at 3.9m ± -0.4m per year. Although his research focused on large scale assessments, Boateng showed that changes in the coastline of Ghana (including Keta) resulting in erosion, flooding, and accretion are a reality. In addition to Keta, these changes could affect other communities considered as hot spots in Ghana.

The climate change variables of erosion, flooding, and accretion identified by Boateng (2012) are strongly linked with the shoreline changes analysis of Appeaning Addo et al. (2011). Appeaning Addo et al. (p. 4) conducted a 25-year quantitative analysis of shoreline changes in Keta from 1986 until 2011 using medium resolution satellite imagery. The authors found that there had been significant changes along the entire coast over the 25 years, and the Keta shoreline had an average rate of erosion estimated to be about 2m/year ±0.44m with some individual rates reaching as high as 16m/year. The combined strengths of Boateng (2012) and Appeaning Addo et al. (2011)

are that the data gathered in the research covered 107 and 25 years respectively and were

specific to Ghana and Keta. Although their findings of the average rate of erosion showed

slightly different figures (3.9m/year and 2m/year), the results validate the magnitude of

erosion and the degree of loss of Ghana's coastline settlements. Building on Boateng and

Appeaning Addo et al., the current study provided a much-needed in-depth understanding

of the lived experiences of the relocated adult family households in Keta, which can serve

as a benchmark for future relocation policies.

Based on the literature, the likelihood that climate change will continue to have

adverse effects on coastal communities in Ghana is high. Appeaning Addo (2013)

conducted a case study of the climate-change-induced coastal vulnerability of Accra. The

purpose of the research was to estimate the coastal vulnerability index (CVI) of the city

as a result of climate change driving factors that would likely affect the coastal

environment. The entire coast of Accra is vulnerable to climate change and rising sea

levels, with the western part likely to be the worst affected area because of its high CVI

value of 9.0 compared to the eastern (7.3) and central (4.8) parts (Appeaning Addo,

2013). The rate of erosion in Accra is also estimated to be about 1.13 m/yr. ± 0.17

m/year, with historic events of incidents of floods and erosion, especially in some

communities of the western part (Appeaning Addo, 2013). Although there are slight

differences in the rate of erosion values between Accra and the Keta, Appeaning Addo's

2013 findings are consistent with Boateng (2012) and Appening et al. (2011), who found

that the eastern coastal area of Ghana (i.e., the Keta area) had a high rate of erosion. All

the key findings of Appeaning Addo (2013) were relevant to the case of voluntary

relocation in Keta related to climate change. Also, although Appeaning Addo's (2013)

research was not specific to Keta, the findings within the Accra coastal area climate change literature are generalizable to all of Ghana (including Keta). The value of Appeaning Addo's (2013) research to this study was that it is specific to Ghana. It suggests that the entire eastern coast of Ghana (including Keta) is most vulnerable even if just the risk factor variables used to estimate the CVI of Accra are involved. While my study was based on slow-onset environmental factors, other types of environmental displacements may trigger voluntary migration elsewhere in Ghana.

Types of Environmental Displacements and Voluntary Migration

The need for temporary or permanent relocation is usually triggered by economic or environmentally-induced displacements. People usually embark on migration as a strategy when faced with environmental changes (Assan, 2012). There are three categories of environmental migrants: (a) people who are temporarily displaced but can return to their original places when the environmental damage has been rectified, (b) people who are permanently displaced and have resettled elsewhere, and (c) people who migrate from their homes in search for a better quality of life because environmental conditions do not support their basic needs (El-Hinnawi, as cited in Boano & Morris, 2008, p. 7).

According to Warner (2009), environmentally induced migration can be categorized as either rapid or slow-onset events. A rapid onset event such as a flood or an earthquake is an observable natural disaster, while a slow onset event is a gradual process such as rising sea level, severe drought, or erosion (Warner, 2009). In the case of slow-onset events, the factors that prevent or enable people to return are more complex, and the urgency is less than with rapid onset events because the rate of environmental change

is slower (Warner, 2009). The coastal communities of Keta experienced rising sea levels, floods, and erosion; hence, they will be categorized as having experienced a slow onset event (Danquah et al., 2014; Patel, Sliuzas, & Mathur, 2015).

Taking an approach somewhat different than Warner (2009), Naser (2013) categorized environmentally induced displacements into *forced* and *voluntary displacements*. Forced displacement occurs following rapid and sudden-onset disasters such as floods and hurricanes, where the affected people might return home when the danger is over (Naser, 2013). Conversely, voluntary displacement is a result of slow-onset disasters such as rising sea levels and desertification, where the people displaced are not likely to return home due to loss of basic services that support their livelihood (Naser, 2013). According to Naser, displacements could be either internal (i.e., displacements within states) or external (i.e., crossing an international border).

Taking an approach similar to Naser (2013), King et al. (2014) classified environmentally based displacements as either forced or voluntary displacements. Forced migration occurs when people are compelled to leave their homes because of disaster damage and loss (King et al., 2014). Voluntary displacement, on the other hand, is the willingness of people to relocate voluntarily due to worsening disaster impact situations. The relocation policy for voluntary migration is based on two elements of risk reduction: (a) restrictions on further and new developments in the hazard-prone areas, and (b), the abandonment of the residential area, especially when direct structural damage occurred during a disaster (King et al., 2014). For such a policy to be successful, households must be willing to relocate not necessarily due to a policy arrangement-but as the result of a broader attitude supporting adaptation through relocation (King et al., 2014).

The Keta relocation of 2003 was based on collaboration between the affected communities, the Keta Municipal Assembly, and the government of Ghana. Based on the classifications of Naser (2013) and King et al. (2014), Keta's relocation is the first (and as of 2016, the only) slow-onset climate-induced voluntary relocation to take place in the history of Ghana. The classification of Keta as slow-onset voluntary relocation, however, places these resettled communities in a significantly different set of circumstances than relocations described in the literature as being the result of human disasters, natural disasters, and voluntary displacements resulting from economic development and the lack of certain social services (Dun, 2011; Patel, Sliuzas, & Mathur, 2015). While displacements have occurred across human history, especially rapid-onset displacements, slow-onset climate-induced displacements are new to the literature.

Synthesis and Relevance of Slow-onset Displacements and Voluntary Relocation

This study on Keta's relocation was designed to help to bridge a gap in the current literature on slow-onset displacement and voluntary relocation. Dun (2011), for example, conducted a scoping study on the Mekong River delta in Vietnam affected by slow-onset environmental factors, including erosion and flooding. Dun's purpose was to determine whether flooding is the cause for migration and displacement specifically, whether people make either forced or voluntary decisions to migrate from their original places of residence due to environmental factors.

Using a qualitative approach in which experts and migrants were interviewed, Dun (2011) found a combination of slow-onset environmental factors similar to those affecting Keta (including flooding and erosion). The impact of flooding from the Mekong delta can result in increased displacements leading to temporary and permanent

migrations regionally. The Mekong delta, however, is significantly different from Keta in that, during seasonal flooding in the Mekong delta, people usually move to urban centers to work as seasonal labors to meet their livelihood needs or relocate permanently when their lands are adversely affected (Dun, 2011). The displacement adaptation strategy employed by the Mekong delta residents is not possible in Keta because there are no urban centers in the Keta Municipality into which citizens can move when their houses are affected by environmental conditions. Also, the Mekong delta flooding is seasonal and predictable, whereas the flooding in Keta can happen anytime. Although some specific findings and the sample size of Dun's study were different from the key variables in Keta's relocation, the framework of slow-onset displacement and voluntary migration were valuable in framing this study of the relocation process in Keta.

Stal (2011) conducted a somewhat similar study on flooding and relocation in the Zambezi River valley of Mozambique. The purpose of his research was to understand the impact of extreme weather events on displacement and migration. Stal used a mixed method approach in which migrants and experts were interviewed and found a combination of factors such as rising sea levels, flooding, coastal erosion, and drought as causes of displacement and migration. Stal's findings differ from those of Dun (2011). Although both researchers found that recurrent flooding of a major river was responsible for displacements and migration, Stal further found seasonal drought as a major cause of displacement and migration in Mozambique.

Conditions along the Zambezi River valley in Mozambique are clearly different from those in Keta. The flooding of the Zambezi River is triggered by extreme weather resulting in drought or continued flooding of the river. The coastal flooding in Keta is

mainly caused by rising sea levels. Nonetheless, Stal's (2011) concepts of climate-induced environmental change and resettlement were valuable in framing the relocation process of Keta.

Schenck (2014) conducted a case study of Newtok, AL—the first settlement in the United States to be relocated due to slow-onset climate-induced environmental change. His research sought to identify the lessons that could be learned from a multi-disciplinary planning group's response to this voluntary relocation.

Schenck used a qualitative approach in which he interviewed three different constituencies (politicians, the Department of Defense, and the Newtok planning group). While the Department of Defense was totally involved in Newtok's relocation plan, the federal and state agencies (politicians) viewed Newtok's relocation expenditure as waste of resources. Thus the lessons from the NPG clearly showed the need for a national framework for relocation of villages threatened by slow-onset environmental events in the United States. Although Schenck's purpose and several findings varied dramatically from the relocation of Keta, the framework of slow-onset climate-induced environmental change and voluntary relocation were valuable in pointing out some of the challenges faced by governmental agencies and the communities during the resettlement process.

In their research to find out whether people or households will relocate from their communities if faced with extreme weather events, King et al. (2014) conducted a survey with 1,463 individuals and households on voluntary relocation as an adaptation strategy in Australia. The study addressed extreme weather events including rising sea levels, drought, and wild fires. King et al. found that the decision to voluntarily relocate depends on weighing up the risks, costs, and benefits as well as the social and lifestyle logic.

Several findings of King et al. may apply to the relocation process of Keta as household are most likely to weigh the risks, benefits, and costs before deciding whether to relocate. While the findings of King et al. may not be specific to Keta's relocation process, the framework of voluntary relocation was valuable in assessing which issues households of Keta communities considered before deciding to relocate and whether the authorities have advanced their interests during the resettlement process.

Despite the various prior studies outlining resettlements due to rapid-onset and slow-onset climate-induced environmental change and the way affected people were treated, I was unable to identify any studies that looked at the topic from the perspective of social construction and social justice. For this research to properly address the issue of social justice resulting from resettlement, it is important to explore the effects of relocation vis-à-vis social justice.

Effects of Relocation

Development projects and most recently, climate-induced environmental factors such as rising sea levels and drought, have forced millions of people to relocate thus creating severe economic, social and environmental problems for the affected people (Mishra, 2014; Stal, 2011).

Tabucanon (2014) conducted a case study on the protection of minority rights of the environmentally displaced Banabans in Fiji. Using documents review, Tabucanon (2014) found that the issue of cultural preservation remains critical. The resettled Banaban's community in Fiji is at the verge of losing its cultural, social, legal, economic, and political rights and has been discriminated against in terms of certain social interventions. The type of displacement the Banabans faced is different from that of Keta.

The Banabans' resettlement was caused by the long-term effects of phosphate extraction that resulted in external displacement (Naser, 2013). Although the specific findings and the framework of Tabucanon might have been different from what has happened in Keta, the key concepts of social, cultural, and other rights of resettled community were valuable in framing the relocation process of Keta.

Ackuayi, Godsway, and George (2014) studied mining-induced displacement and resettlement in Tarkwa-Nsuaem Municipality of Ghana and the effects of the livelihoods of mining communities. Using a mixed-method approach in which households' members and the company staff were interviewed *(N*=289), Ackuayi et al. found a significant reduction in agriculture activities because of land scarcity, which affected resettled communities' income levels as well as a breakdown of social cohesion. The Ackuayi et al. finding on the breakdown of social cohesion due to resettlement was consistent with the findings of Burkett (2015) and Tabucanon (2014).

Ackuayi et al. (2014) findings were relevant to this study as the research was specific to Ghana, and the findings of land scarcity and breakdown in social ties could be generalizable to other resettlement programs in Ghana, including Keta. At the same time, Ackuayi et al. based their study on development-induced displacement and involuntary resettlement as a result of mining in contrast to climate-induced voluntary resettlement process in Keta. Although the findings of Ackuayi et al and the sample size might have been different, the concepts of displacement and resettlement are valuable in framing the current study.

The attendant effects of resettlement are paramount in determining the success or failure of a resettlement program. Pushpalal and Danar (2014) explored social, cultural,

economic, and policy issues that affected the resettlement process in Banda Aceh, Indonesia, and in Minamisanriku and Natori in Japan following resettlements resulting from tsunami and earthquake disasters. Using a qualitative approach, the authors interviewed members of the affected communities. Pushpalal and Danar found that relocation processes usually raise issues of disagreement because the entire process affects people's lives—socially, culturally, economically, and politically—and determines the ultimate success or failure of a resettlement process. Though the relocation process in Minamisanriku was successful because it favored their social, cultural, economic, and political needs, the same factors made resettlement in Banda Aceh a failure and that of Natori disordered (Pushpalal & Danar, 2014, p. 495).

The weakness of Pushpalal and Danar (2014) was that the study failed to explain why the resettlement processes in Banda Aceh and Natori failed. The failures could have been due to the absence of social justice in the distribution of benefits and burdens. While the resettlement processes in Indonesia and Japan were caused by rapid-onset events that resulted in involuntary resettlements differing dramatically from the slow-onset event affecting Keta, Pushpalal and Danar's conception of effects of resettlement was valuable in framing the relocation process of Keta.

Edwards (2013) conducted a case study on climate-induced resettlement in Carteret Islands, Papua New Guinea. Using a qualitative ethnographic approach in which community members were interviewed, Edwards found that climate-induced resettlement does not only affect land scarcity leading to food insecurity, but the socio-economic, traditional, and cultural lives of the people as well.

Edwards' (2013) findings were consistent with those of Pushpalal and Danar (2014) except that Edwards' framework was based on a slow-onset event whereas Pushpalal and Danar studied rapid-onset events. Although some of the specific findings of Edwards might differ, the framework for a slow-onset event was valuable in framing the relocation process of Keta

In summary, despite several previous studies (Ackuayi et al., 2014; Burkett, 2015; Edwards, 2013; Pushpalal & Danar, 2014; Tabucanon, 2014) examining the effects of voluntary and involuntary resettlement due to rapid and slow-onset events, none have looked at the topic from the perspective that these effects of relocation are issues of social justice.
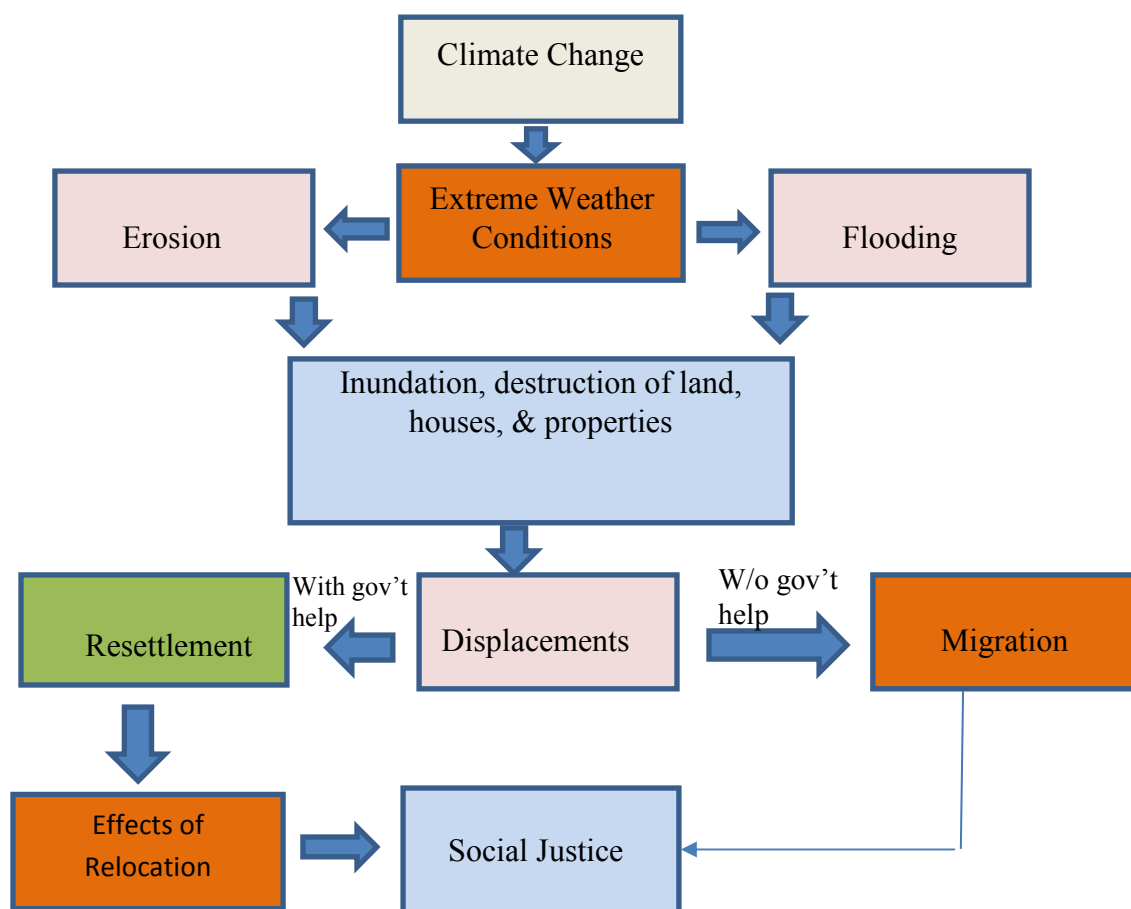
Figure 4. Framework of climate-induced displacement and migration.

Relocation and Social Justice

The effects of climate change such as flooding, drought, and storms are devastating to vulnerable human populations and will compel some to migrate globally; yet there is no legal protection for such people as there is for those affected by conflicts and violence. This reality is a stark example of global discrimination and injustice against populations affected by climate-related events (Skillington, 2015). Climate-induced and development-induced effects of resettlements are issues of social justice.

Nayak (2015) conducted research on development-induced displacement following construction of the Kaptai dam in Bangladesh, which resulted in resettlement of the affected tribal communities. The research question was whether resettlement projects ensure equitable distribution of development benefit and losses. Using a document review, Nayak found that the government did not resettle all the families affected by the dam's construction, which resulted in a violation of human rights, impoverishment, social exclusion, loss of citizenship, and armed conflicts—all of which raise major questions of social justice and equity.

Unlike in Keta, the displacement in Bangladesh was caused by a development-induced project (dam construction). Nonetheless, Nayak's discussion of the key concepts of human rights, social justice, and equity were valuable in framing this study.

In relation to development-induced displacements that do not ensure social justice for the affected communities, Behera (2014) assessed whether benefits sharing resulting from development-induced displacement in India were just. Using a document review and interviews, Behera found that displaced people usually face deteriorating socio-economic conditions, which negate the "principle of development with social justice" (p. 150). Behera's findings were consistent with Nayak (2015). Both authors found that unequal compensation of tribal communities affected communities' socio-economic, cultural, and human rights were negatively impacted by displacements and present issues of social justice.

Behera (2014) considered only development-induced displacement, a factor not present in the climate-induced displacement affecting Keta. Although Behera's specific findings might be different from this study, his framework for social justice, in which

displaced people are left to face deteriorating socio-economic conditions and human rights issues, were valuable in framing the relocation process of Keta.

In a related study, Maldonado et al. (2013) conducted case studies on the effects of slow-onset climate change on the U.S. tribal communities of Kivalina, Isle de Jean, and Newtok, Alaska. Using a qualitative approach of document review and workshops, Maldonado et al. found that there is poor legal and human rights protection both in the United States and internationally for communities forced to relocate due to climate change stressors, which further worsens tribal impoverishments and injustice. These findings also supported those of Behera (2014) and Nayak (2015) on injustice meted out to tribal groups as a result of development-induced displacement. Thus far, the literature on a wide variety of displacements and resettlements had shown that issues of social justice are well substantiated. The key concepts of slow-onset events and social justice were valuable in framing this study even though the specific findings of Maldonado et al. might be different.

As discussed earlier, while there is substantial body of literature on resettlement and social justice, almost all of which is based on development-induced displacement and displacements caused by conflicts and violence, the literature has not addressed the issue of resettlement and social justice caused by slow-onset climate-induced displacement.

Adaptation Strategy

The vagaries of climate-induced rapid and slow-onset environmental factors such as hurricanes, floods, erosion, and drought call for immediate intervention in order to protect life and property of vulnerable communities. One emerging strategy for addressing slow-onset climate-induced environmental events is adaptation. For the

purposes of this research, adaptation refers to the lived experiences of Keta residents and how they are coping with the first phase of relocation as a result of the effects of climate change. The range of governmental adaptation responses to slow-onset environmental events includes the construction of groynes (protective barriers), relocation, or no action (Boateng, 2012; Oteng-Ababio et al., 2011). According to Paskoff (n.d.), the appropriate actions to minimize the threat of sea-level rise include no action, changing the land use pattern, evacuation, protective barriers (engineering structures), and counterattack (combination of protection and reclamation). Adaptation strategies are, however, dependent on economic, technical, institutional, cultural, and social factors (Boateng, 2012; Oteng-Ababio, 2011; Pushpalal & Danar, 2014). Although using protective barriers is common in protecting coastal communities from rising sea levels, relocation due to climate change is globally uncommon and has not been adopted in Ghana (Oteng-Ababio et al., 2011).

Olympio and Abanyie (2013) conducted a case study to assess the effects of shoreline erosion on buildings and infrastructure and recommend adaptation strategies in Nkontompo, Ghana. Using a mixed-method approach in which community members were interviewed (*N*=14), Olympio and Abanyie found that erosion had severely affected the community for more than 26 years and had resulted in erosion mitigation and adaptation measures, such as using rock revetments, a sea defense wall, and relocation of some residents. This research was specific to Ghana and likely generalizable to other coastal areas. Also, the conditions are similar to those affecting Keta and its environs. Although some specific findings of Olympio and Abanyie might be different, the key concepts and framework were valuable to this study. First, results helped explain

community members' experiences of having to live with such destructive events. Second, the study helped to unearth how relocation as an adaptation process has affected the communities' livelihood needs.

Role of Government in Relocation

The issue of relocation became more prominent in Ghana during the construction of the Akosombo dam in 1964 when many communities were resettled; at the same time, many other resettlements took place due to development projects such as mining (Danquah et al., 2014). The NADMO, under the Ministry of Interior, is the only governmental organization in Ghana responsible for managing disasters and similar emergencies in the country. Established by an act of parliament (ACT 517) in 1996, NADMO came into being as a result of the conference on Natural Disaster Reduction in Japan in 1994 that mandated each country to establish a permanent disaster management organization (NADMO, 2015). Although disasters are specifically defined by the legislative instrument, the category does not include slow-onset climate-induced environmental changes such as sea level rise, steady erosion, and drought. This example illustrates the paucity of governmental policies that protect climate-induced environmental migrants. As McDowell (2013) asserted, many nations do not have resettlement legislation that protects the resettled populations and ensures their rehabilitation in a new environment.

Nicholson (2013) argued that climate change is a growing concern and a prominent political and economic issue that has forced policymakers to focus on developing both mitigative and adaptive actions. Nicholson's assertion contradicts that of Martin (2010), who suggested that policymakers have been slow in developing national,

regional, and international laws, policies, and organizational responsibilities to manage climate-induced environmental migrants. By the year 2000, the problem of flooding and erosion in Keta had become so devastating that the central government could no longer ignore the situation and had to identify mitigative and adaptive measures. Huntington et al. (2012) termed this a *political tipping point*—a point at which governmental response is forced or impossible.

As noted earlier, with respect to a climate tipping point causing a political tipping point, Huntington et al. (2012) conducted case studies of three Alaskan villages affected by climate change. Their research sought to determine whether there will be major changes that cannot be reverted but will create a new stable system in the political-economic response to global warming. Using qualitative analysis consisting of document reviews and interviews, Huntington et al. stated that both the federal and state governments were responsible for establishing and providing infrastructure for the relocation of communities; however, the economic cost of relocating villages could result in passing a political tipping point where villages' relocation would not be executed by government. They predicted that the disappearance of villages due to erosion will decrease the number of future villages and increase the size of the regional hubs, which will likely be a permanent shift. Climatic conditions in the Huntington et al. study in Alaska differed dramatically from those in Ghana. The study did not also include an analysis of relocation as an adaptation response. The Huntington et al. study was useful, however, in framing this research by contributing to an understanding of how the lived experiences of climate affected communities can result in governmental tipping point in Ghana for the protection of future communities threatened by rising sea levels.

Nuttall (2012) took a somewhat similar but more general approach than that of Huntington et al. (2012) in his qualitative case study of fishing, hunting, and herding in northern, southern and eastern Greenlandic communities in order to better understand the concept of tipping point. Nuttall found that Greenlandic communities believe in absence and anticipation—in a time where everything about nature which is inherent in their daily lives, social and cultural practices will change. The author considered how this belief can be significant in the development of a local strategy of adaptation. A weakness of Nuttall was that the study failed to indicate what adaptation strategy would likely be suitable for those communities.

Furthermore, Walker (2006) took a similar approach to Nuttall (2012) in considering the concept of tipping point, when a tipping point might be reached, and whether the tipping point is a point of no reversal. Walker reviewed various scientific and political publications about thin ice, changing winds, and cracking up in the Arctic and Greenland. This study showed negative changes affecting the climate, including remarkable heat-waves due to less sea ice (thin ice), drying of certain areas due to change in winter storms, and speedy melting of the glaciers. Walker concluded that a tipping point is usually reached when internal dynamics begin to force a change initially driven by external forces, but the role of humans in global warming makes the human tipping points more important than the natural ones. Although Walker did not analyze any adaptation strategy that could be used when the tipping point is reached, his findings were valuable to this study through his indication that human causes of climate change are more devastating than the natural forces. This could provoke debates allowing policymakers to do more about mitigating climate change.

In sum, the definition of the term tipping point varies. In sum, the definition of the term tipping point varies. Walker (2006) viewed tipping point as a change in climate internal dynamics which propels a change initially driven by external forces. Nuttall (2012) defined tipping point as a rare phenomenon that becomes common (p.97). Huntington et al. (2012) suggested that a tipping point cannot be defined and depends on the situation in which governmental action becomes necessary.

A key concept shared by Nuttall (2012), Huntington (2012), and Walker (2006) that was significant to this study was that a tipping point is a point in time at which governmental intervention is necessary. For surrounding communities of Keta, passing a tipping point would mean that no relocation would have been possible as an adaptation response, leaving only other adaptation options to slow-onset environmental events such as protective barriers or no action. When slow-onset adaptations fail due to the severity of environmental impacts, rapid-onset policies may be implemented which may result in the disappearance and loss of the culture of a community (Schenck, 2014). The concept of tipping point thus indicates how significant governmental intervention is in mitigating slow-onset environmental events.

The central government of Ghana took up the construction of the Keta Sea Defense Project (KSDP) as a political response to a long-term, unattended environmental and social catastrophe. As discussed previously, Keta is not the only community facing slow-onset climate-induced environmental events in Ghana. Ghana is only one among many nations that do not have a national relocation plan for communities threatened in the future by rising sea level. According to McDowell (2013), little evidence exists to show that governments have considered additional resettlement challenges to involve

laws and policies to ensure resettlement meets international standards. In order to develop effective policy response to environmental displacement and migration, there must be an in-depth understanding of the lived experiences of those relocated (Oliver-Smith, 2012) to serve as a benchmark for future resettlement policies and plans. This study's question specifically addresses whether Keta's relocation process adequately meets Rawls's criteria for social justice and, if not, what lessons can be learned from Keta's relocation process that will be significant in informing future policy decisions elsewhere.

Qualitative Phenomenological Literature

The methodological approach of this study is extensively described in Chapter 3. The literature provided a fundamental justification for choosing qualitative phenomenology to conduct this research. The aim of phenomenology is to gain an in-depth understanding of the nature or the meaning of people's lived experiences (Patton, 2002). According to Creswell (2013), there are two types of phenomenology: hermeneutic phenomenology and empirical/transcendental phenomenology. Hermeneutical phenomenology is geared toward the lived experiences of people and interpreting the text of their narratives (van Manen, 1990). In hermeneutical phenomenology, the researcher writes a description of the phenomenon by immersing himself/herself into the phenomenon of inquiry, describes, and interprets the meaning of the lived experiences of the individuals (van Manen, 1990). Transcendental phenomenology, on the other hand, pays less attention to interpretations of the researcher and more to the description of the experiences of the individuals (Moustakas, 1994). Researchers using a transcendental phenomenological approach set their experiences aside (bracketing) in order to get fresh perspectives on the phenomenon being

investigated although this is rarely achieved (Moustakas, 1994). Although this study of Keta's relocation falls within the hermeneutical phenomenological perspective, the research question was consistent with both the hermeneutical and transcendental phenomenology perspectives.

Taking a different approach, Patton (2002) classified phenomenology into three types: transcendental, existential, and hermeneutical. Transcendental focuses on the significant meaning of individual experiences; existential describes the social construction of group reality; and hermeneutical emphasize the language and structure of communication (Patton, 2002). Despite these different approaches, Patton acknowledged that they share a common understanding: how individuals make sense of experiences and transform the experiences into awareness with personal and common meaning (p. 104).

Creswell (2013) stated that a phenomenological study depends on a single phenomenon to be explored with a group of individuals who have experienced the phenomenon. The current study revealed how the lived experiences of individuals have both subjective and objective aspects of these experiences in common with other individuals. The rationale for a phenomenological approach to this study of Keta's relocation process was consistent with the views of Creswell. First, the lived experiences of the relocated communities were explored to better understand the complexities associated with their relocation. Second, there were both objective and subjective meanings given by the communities' members.

Summary and Conclusions

The literature review showed that climate change, especially rising sea levels, is negatively impacting Ghana's coastal areas. Devastating effects on the eastern coast of

Keta, where erosion and flooding are most pronounced, were the stimuli to relocate the affected communities (Danquah et al., 2014). The surrounding communities of Keta are the first Ghanaian settlements to relocate due to slow-onset climate-induced events. Most of the current literature addressed rapid-onset events and development-induced resettlements. Dun (2011) effectively considered how slow-onset environmental events can cause relocation, but the research was not conducted in Ghana. Similarly, Boateng (2012) and Appeaning Addo et al. (2011) effectively documented how erosion and flooding are affecting coastal communities of Ghana and prescribed the construction of protective barriers. Nevertheless, these studies failed to analyze how relocation could be used as an effective adaptation strategy to climate change.

Other research (Ackuayi et al., 2014; Edwards, 2013; Mishra, 2014; Pushpalal & Danar, 2014; Stal, 2011;Tabucanon, 2014) found that relocation due to development-induced, rapid-onset, or slow-onset events has negative ramifications including abuse of human rights; political, cultural, and social disintegration; land scarcity; and severe economic, and environmental problems for the affected people. No studies have been found that have analyzed the implications of these effects for social justice.

Behera (2014) and Nayak (2015) addressed relocation and the lack of social justice, but focused mainly on development-induced relocation and not slow-onset environmental events. Also, their researchers did not analyze the lived experiences of resettled communities or the implications of their relocation in terms of social justice.

The objective of this qualitative phenomenological research was to better understand what is not known about the social justice implications of relocation due to slow-onset climate events based on the lived experiences of the relocated communities of

Keta, Ghana. The current gap in the literature on slow-onset climate-induced displacement was addressed through a qualitative phenomenological study design that is described in Chapter 3. Van Manen (1990) would categorize this phenomenological approach to the lived experiences of Keta relocation as hermeneutical phenomenology; Moustakas (1994) would classify it as empirical transcendent phenomenology. The synthesis of these two types of phenomenology was relevant in answering the unknown problem of relocation and social justice based on the lived experiences of Keta residents.

Chapter 3: Research Method

Introduction

The purpose of this qualitative phenomenological study was to gain an in-depth understanding of the lived experiences of adult family members of relocated Keta households and to suggest how their experiences could contribute to policy development and governmental response in developing a national relocation plan in Ghana for communities threatened by rising sea levels. To that end, in Chapter 3 I describe the research design and rationale, sampling strategy, and participant selection; the central phenomenon; role of researcher; data collection procedure; details on data analyses and interpretation; ethical considerations; and my potential bias. I also discuss saturation and sample size relationship, trustworthiness (internal and external validity), and informed consent procedures. The chapter concludes with a summary.

Research Design

A qualitative phenomenological approach was used to interview adult members of family households who were 18 years and above at the time of relocation ($N = 17$) about a phenomenon they personally experienced, the relocation of the communities of Keta in 2003. The following primary research question and subquestions directly addressed the gap in the literature (Behera, 2014; Maldonado et al., 2013; Nayak, 2015) on social justice and the lived experiences of communities resettled as a result of slow-onset climate-induced environmental change.

Research Questions

The central question for this study was as follows:

RQ: Does Ghana's national resettlement policy on climate change adequately

meets Rawls's criteria for social justice, based on experiences of relocated adult

family members of households from Keta?

Subquestions for this research were:

SQ1: What are the perceptions of adult family members of their experiences of

relocation and of the situations that affected their resettlement?

SQ2: In what ways, if any, have family households experienced complexities in

their resettlement?

SQ3: In what ways, if any, has the resettlement program affected family

households' human rights?

SQ4: In what ways, if any, has resettlement affected family households'

livelihoods?

SQ5: What are the perceptions of relocated adult family members of the

challenges government faced during the resettlement process?

Rationale for the Qualitative Phenomenological Design

Qualitative phenomenology was the appropriate method for examining the lived

experiences of the relocated communities of Keta because of its direct practical

application to real-life experiences (Pascal, Johnson, Dore, & Trainor, 2010). Qualitative

researchers study a phenomenon in its natural settings -and make sense of or interpret the

phenomenon in terms of the meanings participants hold about the phenomenon (Denzin

& Lincoln, 2011). The characteristics of qualitative research include a natural setting; the

researcher as a key instrument; multiple methods (triangulation); inductive and deductive data analysis; participants' meaning; emergent design; interpretation; reflexivity (presence of the researcher); and holistic account (Creswell, 2013, pp. 45–47); Denzin & Lincoln, 2011; Patton, 2002). Each of the characteristics of qualitative research outlined above was present in this study and, as such, was important for generating data that addressed the research questions.

A phenomenological design was considered the most suitable qualitative method of exploring the central phenomenon of this study. Phenomenology describes the common meaning individuals share about their lived experiences of a phenomenon or concept by describing how they perceive it, feel about it, judge it, and make sense of it (Moustakas, 1994; Patton, 2002, p. 104). The basis of this study was that the relocation of Keta's communities represented a phenomenon that required an in-depth understanding of the lived experiences of the affected communities. To answer the research question, I interviewed the people who had directly experienced the phenomenon rather than relying on second-hand descriptions (Patton, 2002).

Methodology specialists (Creswell, 2013; Denzin & Lincoln, 2011; Moustakas, 1994; Patton, 2002) have identified several features of phenomenology:

- an emphasis on a single concept,

- an exploration of the concept with a group of people who experienced the phenomenon,

- a focus on individuals' lived experiences and how they have objective and subjective experiences of a common concept,

- bracketing by the researcher to get fresh perspectives of the phenomenon,

- data collection through interviews, and

- data analysis through description and interpretation.

Three philosophical paradigms addressed the research questions: (a) interpretivism, (b) constructivism, and (c) pragmatism. Interpretivism focuses on how researchers interpret their findings in order to make sense of the meanings participants have about the phenomenon being investigated (Denzin & Lincoln, 2011). The constructivism paradigm states that individuals have different and multiple subjective meanings about their experiences of a certain phenomenon, which allows inquirers to look for the complexity of opinions rather than narrowing the meanings into a few ideas (Denzin & Lincoln, 2011). Pragmatism refers to the use of multiple methods to collect and analyze data that answers the research question as well as focusing on the practical implication of the research. Data collection thus involves asking respondents open-ended questions and observing issues of interest in real world settings (Denzin & Lincoln, 2011; Moustakas, 1994; Patton, 2002).

Constructivism was particularly pertinent to this study because the relocation process of Keta was based on ad hoc measures. Moreover, the people had different subjective meanings of the relocation process. As a researcher, my role was to rely on the respondents' views of the relocation process and unearth the meanings they ascribed to the situation. Therefore, the findings based upon lived experiences were significant in identifying social justice issues and making recommendations toward the development of a national relocation plan for the future. Data analysis went beyond mere description and

hence, the need for interpretivism. A relocation process is complex and requires a pragmatic approach. Pragmatism was equally necessary as data collection was based on multiple methods.

While I chose a phenomenological design for this study, other methods of qualitative inquiry were considered but deemed less effective in addressing the lived experiences of communities affected by slow-onset environmental events. For example, I considered narrative research, which seeks to report the stories of experiences of a single individual, several individuals, or a blend of autobiographical materials (Riessman, 2009), but as a methodology it fell short in describing the common meaning of several people of their lived experiences of a phenomenon.

Similarly, ethnographic research was considered. This methodology focuses on describing and interpreting the shared values, beliefs, and behavior of a social setting or entire culture-sharing group in order to understand and write about them (Creswell, 2013; Sands, 2013). With regard to this study, the population I studied no longer resides physically together in their old communities as a result of their relocation. As such, an ethnographic design was inappropriate.

I also considered grounded theory, a method of developing a theory through systematic collection and analysis of data (Charmaz, 2006). It was not appropriate because the purpose of this study was to understand the lived experiences of resettled communities and not to generate a theory.

Role of the Researcher

My role as a researcher was focused on collecting data objectively and avoiding the use of either body language or tone of voice that could influence participants to

respond inappropriately to the interview questions. I conducted observation in all the

three communities of Adzido, Kedzi, and Vodza. My observation focused on physical

settings, participants' activities, and interaction. For example, as a way of providing

evidence on the resettled communities' sources of livelihoods, I observed the daily

livelihood activities in which community members were engaged. This was relevant in

confirming or disconfirming whatever participants said in the interviews. Second, I

observed the quality and adequacy of their housing vis-à-vis their family size to

determine whether residents were satisfied with the type of accommodation they had

been provided. I also observed the availability of social infrastructure and amenities such

as schools, hospitals, shops, access to drinking water, and public transportation as a way

of determining whether any of their rights of access to these amenities have been

infringed upon in one way or another.

As a researcher, I was the main instrument involved in the observation process.

Observation was important because it allowed me to gain firsthand experience with the

communities and the people, as well as to explore and discover certain information

without relying on prior information or literature about the settings (Patton, 2002).

Through observation, I was able to see and hear things that escaped the awareness of

participants during interviews and discover things participants did not pay attention to but

which were useful to this study. Furthermore, observation allowed me to learn things

participants were not willing to discuss during interviews, which enhanced the credibility

of the study. I conducted observation as a visitor to the communities and did not collect

any information on identifiable individuals in the study. I was fully engaged with the

people I observed, which allowed me to establish greater rapport and got information-rich

data. As Sands (2013) stated, this approach is consistent with a qualitative field data collection process.

As a researcher, I had no professional relationship with the study communities or any member of the communities. Similarly, I had no financial interest in the findings of this study apart from the knowledge that was gained from the conduct of this study. Prior to beginning the interviews, I spent 2 weeks talking informally with community members, officials, and political, and opinion leaders in order to build trust and familiarize myself with their culture. This approach facilitated my data collection process and led to the collection of information-rich material. Consistent with a phenomenological approach, my role as a data collection instrument enhanced data richness and depth more effectively than would a quantitative approach where instruments are used and the researcher is mostly separated from the process. I did not completely detach myself from the participants as this could limit my openness to receiving in-depth information. To avoid bias, I bracketed out my own experiences and views (Moustakas, 1994) when collecting data from participants on their lived experiences.

Ethical Issues

The respondents in this study were adult males and females who were 18 years and above at the time of relocation in 2003 and who were free to decide whether to voluntarily participate in the study. This study has no ties to my professional work in the United States. There was no imbalance of power, and no gifts were given to participants. There were no known harms associated with participating in this study. Each participant

was made to complete the informed consent form before being interviewed. Also, the confidentiality of all participants has been strictly protected in this study.

Research Methods

Sampling Strategy and Justification

The choice of a sampling strategy, the interviewees, and the sample size depends on previous decisions about the appropriate unit of analysis and whether the sampling strategy is consistent with the approach of the qualitative inquiry being adopted by the researcher (Creswell, 2013; Englander, 2012; Patton, 2002). In this regard, purposeful sampling was consistent with the phenomenological research design and the need to get thick, rich answers to the research questions. Purposeful sampling involves identifying and selecting individuals that have experienced the phenomenon of interest (Creswell & Plano Clark, 2011; Englander, 2012).

Within the purposeful sampling strategy, I used a criterion sampling technique as a way to select the participants to be interviewed. A criterion sampling technique involves looking for cases or individuals who meet a certain criterion (Palys, 2008). The justification for using criterion sampling is that it enabled me to understand in-depth, information-rich cases that revealed major system weaknesses for improvement (Patton, 2002).

Participant Selection and Recruitment

Only individuals who experienced the phenomenon being investigated were recruited for the study (Englander, 2012). In this regard, all the participants shared common experiences of the phenomenon but gave different accounts of the events. I selected two adult members (a male and a female) from each of the nine family

households ($N = 18$) who previously lived in the Keta communities that were affected by rising sea levels and have been relocated. (One person eventually declined to be interviewed). This provided a balanced perspective of how the communities experienced relocation. The criteria for selecting participants were as follows:

- Selected participants were permanent residents in their communities.

- Selected participants lived in one of the previously affected communities, experienced flooding and erosion, and had been relocated.

- Selected participants were 18 years or above at the time of relocation in 2003 and were willing to participate in an interview for 60–70 minutes.

- Selected participants were willing to grant me the right to audio-record and publish the data in my dissertation and other publications.

- Two adults in each of the selected household agreed to participate in the interview.

After Walden University IRB approval was granted (no. 05-23-16-0304096), I sent written notifications (letters) to opinion leaders (chiefs & political leaders) of the communities of Adzido, Kedzi, and Vodza informing them of the nature and purpose of my research, and requesting permission to conduct the study in the communities (see Appendix A). By tradition, the chiefs are the custodians of the communities, while the political leaders are the local government's representatives of the communities—who all serve as gatekeepers for the communities. Informing these opinion leaders about the research study facilitated my research process by alleviating any fears of family households' members about participating in the study. The assemblyman of Adzido and

Vodza gave me an approval letter (see Appendix B) to conduct the study, which strongly facilitated my data collection process. Participants were recruited by physically visiting the communities and purposefully selecting households who met the criteria. I explained the nature and purpose of my study to each interviewee, and, when agreed upon, a meeting time suitable for both of us was scheduled for the actual interviews. Participants were given a consent form to sign before the commencement of each interview. Two adult family members were proposed to be interviewed from three purposefully selected family households in each of the three communities of Adzido, Kedzi, and Vodza (see Table 1), but one person later declined the opportunity to take part in the interview (see Table 3).

Table 1

Planned Interviewee Recruitment Strategy

Community	Households to be interviewed	Number of individuals
Adzido	3	6
Kedzi	3	6
Vodza	3	6
Total	**9**	**18**

Relationship Between Saturation and Sample Size

Saturation is the point at which the collection of new data does sheds no further light on the issue under investigation (Ritchie, Lewis, & Elam, 2003). Saturation is used to determine sample size in most qualitative studies, which explains why samples in qualitative studies are usually smaller than those in quantitative studies (Mason, 2010).

Ritchie et al. (2003) stated that there is a point of diminishing return in qualitative sampling where more data does not necessarily lead to more information. Mason (2010) suggested that a qualitative data sample should be large enough to capture most or all of the perceptions of participants, but he cautioned researchers that too much data leads to repetition and redundancy. To this end, a small sample size with a reasonable claim was needed to achieve saturation faster than a larger sample size with an ambitious claim (Charmaz, 2006).

Although the sample size in qualitative research is important, there is no prescribed formula to use in calculating sample size as there is in quantitative research. Patton (2002) stated that determining a sample size depends on "what one wants to know, the purpose of the study, what will be useful, credible, and the available time and resources" (p.2 44). Other researchers, however, have offered guidelines for qualitative samples. For example, Charmaz (2006) recommended that 25 participants are adequate for a small qualitative project. Retchie et al. (2003) proposed that a qualitative sample should "lie under 50" participants (p. 84). The smallest acceptable sample (Bertaux, 1981) is 15 participants, though Moustakas (1994) argued that samples as small as six were acceptable, depending upon the depth of the interview probes. Beyond all these guidelines on sample size, the agreed upon guiding principle should be saturation.

As discussed previously, I expected household members to have different meanings and experiences of the same phenomenon. Therefore, the proposed sample of nine family households (18 participants) was manageable and allowed me to reach saturation as well as address the research questions of the central phenomenon being investigated. The minimum number of interviews to reach saturation was set at a sample

size of nine families (18 participants—two members of at least three families from each of the three communities). The sample size was sufficient to get in-depth, extensive, very valuable and rich-information from participants.

<div align="center">**Interview Protocol**</div>

Basis and Source of Interview Protocols

Based on the guidance of Giorgi (2009) and a broad review of literature on strategies for the qualitative interview, I developed an open-ended interview protocol (see Appendix C) and descriptive questions, which elicited some demographic information not generated from the research questions. The objective of the interview in a phenomenological research study is to find out and understand those things that one cannot directly observe such as feelings, thoughts, intentions, and meaning which are made explicit through others' perspectives (Patton, 2002). Within the interview procedure, I used the standard open-ended interview technique. The purpose of qualitative open-ended interviews was to get the views of respondents and to capture the complexities of their individual perceptions and understanding by encouraging them to express their own meaning in their own words (Patton, 2002). The open-endedness allowed participants to contribute more detailed information as they wished, which in turn enabled me to ask probing questions as a means of follow-up (Turner, 2010). The open-ended interview technique elicited understanding and the meanings of participants' lived experiences. The technique was especially advantageous in this qualitative research because it minimized variation in questions posed to respondents, and facilitated data analysis through the comparison of easy to find responses (Patton, 2002).

I guided respondents through the same sequence and asked them the same questions in the same order to ensure consistency. The two selected adult family members were interviewed separately. The initial part of the interview involved establishing rapport and signing of the informed consent form. The research questions (Appendix C) were constructed to avoid ambiguity. This protocol allowed me to probe further for more understanding in order to obtain in-depth and rich information to better address the research questions. I was highly focused during each interview to ensure efficient use of the interviewee's time.

Observation Protocol

Observation allowed me to gain firsthand experience with the communities and the people, as well as explore and discover certain information without relying on literature (Patton, 2002). I observed the physical settings and participants' activities and interactions in Adzido, Kedzi, and Vodza. First, I observed the daily livelihood activities the selected community members engaged in as a way of providing evidence on communities' sources of livelihoods. Second, I observed the quality and adequacy of their housing vis-à-vis their family size to help determine whether residents are satisfied or not with the type of accommodation government provided them. Also, I observed the availability of social infrastructure and amenities such as schools, hospitals, shops, access to drinking water, and public transportation to determine whether any of their rights of access to these necessities had been infringed upon in one way or the other. As stated previously, I was a visitor to the community, and no identifiable names came out of these observations. I did use the time to establish greater rapport and to get information-rich data.

Documents Selection and Justification

Archival records constitute an important source of rich information in qualitative studies (Patton, 2002). I reviewed official public documents such as minutes from meetings on Keta resettlement, communities' layout plans, records of housing distribution, and compensations payment. These official documents were collected from the Ministry of Works and Housing, NADMO, and the Keta Municipal Assembly. The documents were important for triangulation during the data collection process.

Procedures for Recruitment, Participation, and Data Collection

I conducted face-to-face interviews in the three communities of Adzido, Kedzi, and Vodza in the Keta Municipality ($N = 17$). The time and location of interview were determined according to the convenience and preference of the interviewee. I interviewed the two adult household members separately, which allowed me to get different subjective meanings each had about a phenomenon they both experienced. I spent 2½ months in Ghana for field data collection, which took into consideration any time constraints that affected scheduled interview times. This approach facilitated the data collection process through the criterion sampling technique. It also permitted recruitment of additional interviewees if a selected participant withdrew from participating in the interviews. All the interviews were conducted in person. Each interview session lasted an average of 55 minutes. All interview responses were captured through hand-written notes and by digital recording. Notes were read, and digitally recorded interviews were transcribed immediately after each interview and stored on a password-protected laptop. A copy of each interview transcript was returned to the interviewee for review and to

make any changes required as a way of confirming the respondent's validation (see

Appendix D).

Data Analysis Plan

The process of data analysis involved making sense out of the text and image data

collected from the field (Creswell, 2009). The analysis of interviews, observations, and

documents was as challenging as representing data in tables, matrices, and narratives

(Creswell, 2013). Raw field notes and precise transcripts formed the "undigested

complexity of reality," which needed to be simplified to make sense out of the

complexity through analysis (Patton, 2002, p. 463). The process of data analysis involved

conducting a preliminary reading through of everything I had collected; converting raw

data into codes; and organizing codes into themes, representations of data, and

interpretations of themes (Creswell, 2013). Data analysis was a concurrent process that

ran through the collection of field data and on through the establishment of files and

coding of field notes (Frankfort-Nachmias & Nachmias, 2008). Although there is a

generic process of qualitative data analysis, this phenomenological research analysis used

significant participants' statements and reduced them to words and phrases, generated

meaning units, and developed essence descriptions (Moustakas, 1994; Saldana, 2009).

Connection of Interviews and Observation to Research Question

The data analysis process involved converting raw field data from the interview

and observation protocols and the documents review into findings that addressed the

research questions. The interview and the observation protocols were designed to

generate themes on the lived experiences of Keta resettlers caused by slow-onset climate-

induced environmental change and whether that was executed on the basis of social

justice or not. Document analysis of minutes and relocation reports was also intended to

answer questions on livelihood options and clarification on the challenges the central

government faced during the relocation process.

Procedure for Coding

Coding involves the use of a "word or short phrase that symbolically assigned a

summative, salient, essence-capturing, and/or evocative attribute for a portion of

language-based or visual data" (Saldana, 2009, p. 3). Before coding, I developed an

initial descriptive coding list of six categories known as Master Coding List (MCL) and

assigned short labels or codes (see Appendix E). I precoded by highlighting and

underlining key words or phrases in the text that stand out upon first reading. I

categorized the codes into several words and phrases during my second reading of the

database to make sense of the interviews. Finally, I reduced and combined codes into the

six themes initially established. The precoding MCL was developed from the theoretical

framework and research questions in line with qualitative tradition. But an emic

perspective allowed modification of the preestablished codes by dropping two codes that

irrelevant to the data analysis.

The main objective of precoding was to establish a structure that could facilitate

differentiation of data by assigning particular section of data to a code linked to a broader

conceptual framework. As Patton (2002) noted, classifying, identifying, and coding are

necessary in data analysis to avoid confusion. Thus, the MCL served as a node from

which similar codes were analyzed. The MCL was subject to modification based on the

information that emerged from the field. Origin of the code names was a combination of

names I considered to best describe the information and in vivo codes; that is, names that were the exact words used by respondents (Creswell, 2013).

I addressed the problem of convergence and divergence of codes during coding and classification. Within convergent codes, I looked for internal homogeneity (the extent to which data in one category was consistent) and external heterogeneity (the extent to which differences among categories were conspicuous) (Patton, 2002, p. 465). With regard to divergence, I considered information already known, and linked different types of information as well as new information that fitted the central phenomenon of the study until saturation was reached. I aggregated code segments to describe information that could be used to form themes. The themes established were an outcome of coding, classification, and analytical reflection (Saldana, 2009).

Use of NVivo

The use of software for qualitative data management and analysis has been extensively discussed. Using computer software for data analysis provided an organized way of storing data and facilitated quick and easy access which was stored in one place. Drisko (2013) indicated how computer software could facilitate the immediate ability to explore, code, and organize large amounts of data and efficiently back-up up files. Further, computer software helped me identify and retrieve electronic files.

Although in quantitative studies statistical software generates analytical data, qualitative computer software does not assist in analytical decisions such as identification of meaning and codes (Drisko, 2013). Qualitative software is also increasingly generic in function and its use has been challenged in research approaches such as ethnography, case study, narrative, and so forth (Drisko, 2013). The inability of such software to

automatically reduce a researcher's bias or to improve reliability or credibility was recognized by Drisko (2013), who identified these issues with examples from several types of computer-assisted qualitative data analysis software (CAQDAS) including Nvivo.

Despite the demerits associated with qualitative computer software, my use of NVivo was appropriate for managing data because it allowed me to organize and analyze large amounts of data. In addition, it permitted me to better synthesize the multiple types of phenomenological data I collected that were needed for triangulation. NVivo was helpful in exploring and coding data and sped up the marking and retrieval of meaningful segments of my data.

Treatment of Discrepant Cases

Identifying convergent and divergent data during coding was highly significant in revealing discrepant (deviant) data that did not fit the dominant identified patterns (Patton, 2002). I analyzed and incorporated discrepant cases that ran counter to the themes established within this research, enhanced my understanding of patterns and trends and explained why the data did not fit but could still be valuable. Discussing contrary information increased the credibility of the research (Creswell, 2009).

<div align="center">Issues of Trustworthiness</div>

Trustworthiness was important in this qualitative research as I relied on participants for their interpretations of the meanings of the central phenomenon being investigated (Denzin & Lincoln, 2011; Moustakas, 1994). Establishing strong rapport with the interviewees facilitated the generation of in-depth and information-rich data. The interviewees understood my need to collect factual and authentic data and trusted the

protections in the consent agreement to the effect that participation in the study would not cause them any harm (Creswell, 2013; Lincoln & Guba, 1985; Rubin & Rubin, 2005). To ensure trust, I spent 2 weeks talking to participants prior to the actual interview, which offered an opportunity to establish trust with them through introduction and giving a clear explanation of the purpose of the study. Additionally, I built trust with participants by explaining to them how the answers they provided could lead to a better outcome in the future of communities relocated due to environmental events. Furthermore, I explained that the findings of the study could reveal pertinent problems and increase public discussions that could contribute to policy improvement. I sought permission to record the interview and reminded them that participation was voluntary as well as assuring them of strict confidentiality. As much as possible, I remained neutral during data collection and analysis, allowing findings of the study to be shaped by the participants' own words and not my own bias, motivation, or interest (Lincoln & Guba, 1985).

Trustworthiness was also achieved through data triangulation. Triangulation ensured that an account was rich, robust, comprehensive, and well-developed (Lincoln & Guba, 1985). I analyzed archival documents such as official government records and reports on Keta relocation from the Ministry of Works and Housing, NADMO, and the Keta Municipal Assembly.

As an outsider, I faced the challenge of ensuring trustworthiness. The problems of cross-cultural and cultural differences with the population of study are common in qualitative research. As such, I talked to participants during meetings prior to the actual interviews, which enabled me to build trust with the people. This was necessary because, in Africa and Ghana in particular, there are many ethnic groups with diverse cultures.

Hence, as someone from a different ethnic extraction, I needed to familiarize myself with the culture of the study communities to facilitate data collection.

Internal Validity

The internal validity of this phenomenological study was achieved by my adequately addressing triangulation, participants' validation, saturation, negative case analysis, member-checking, persistent observation, and prolonged engagement (Lincoln & Guba, 1985). Addressing these enhanced the credibility of this study. Similarly, I used rigorous methods to collect high-quality data that I systematically analyzed to promote issues of credibility. Through triangulation, saturation was reached based on convergence.

I spent $2^{1/2}$- months as an interviewer and an observer in the field to get an in-depth understanding of the central phenomenon of the study in order to achieve credibility. Spending prolonged time with the participants greatly increased credibility of the study (Creswell, 2009), and participants had the opportunity to both review (and augment) the transcripts of their interviews for accuracy. In these ways, internal validity was achieved through prolonged engagement with respondents, continuous observation in the field, use of my dissertation committee as peer reviewers, member-checks, and analysis of discrepant cases (Morrow, 2005).

External Validity

To achieve generalizability, the researcher should be able to provide sufficient information about the researcher as an instrument, the context of the study, methods, and respondents to allow others to determine how the findings might be transferred (Morrow, 2005). The rationale for addressing the external validity of this phenomenological study

with regard to transferability was to determine whether the conclusions might apply to other coastal areas of Ghana. I gave thick descriptions to enhance the richness of the findings, and the description was based solely on criterion-sampled participants. Other relocated Keta adults might have had different experiences. Thus, although the findings of the study make generalization to all relocated adults unfeasible, they may be transferable to relocated adults from other coastal areas similar Keta. The nature of qualitative phenomenology is such that findings are not generalizable in the conventional sense common to quantitative research (Morrow, 2005).

Dependability

Each interview transcript was reviewed by the participant, thus eliminating errors and illustrating the dependability of any common findings among the community members. Data were compared with codes to ensure consistency (Creswell, 2009); triangulation provided a check for dependability and consistency across sources. Again, I explicitly outlined all processes through which findings were derived, a protocol that could be repeated. I kept an audit trail – a detailed and chronological account of the research activities and processes, emergent themes, and any other influences on data collection and analysis (Morrow, 2005).

Confirmability

The main purpose of this phenomenological study was to study the experience of relocation from Keta while remaining as objective as possible. Findings were generated from interviews with a purposeful sample of people who had experienced this relocation rather than from my own subjectivity. I remained neutral during data collection and linked the findings of the study to the research problem and the data collected from the

field. Since the integrity of the research findings depended on the data, I tied together the analytical procedures for handling data with the findings to assure confirmability of adequacy of the findings (Morrow, 2005). Additionally, my audit trail further promoted confirmability.

Ethical Procedures

Agreements to Gain Access to Participants

Gaining permission to the research site was facilitating key aspects of data collection. As previously discussed, I established rapport with political and opinion leaders who served as gatekeepers of the communities to facilitate my data collection process. Since this qualitative research mainly involved the study of human subjects, the Walden University Institutional Review Board (IRB) required a current certificate verifying my completion of the National Institute of Health (NIH) course called "Protecting Human Research Participants." Participants were made aware of any risks associated with the study and their rights to participate or withdraw voluntarily. I acquired signed informed consent from all participants before interviews were conducted. By obtaining approval from the IRB and ensuring voluntary participation, ethical issues were mitigated.

Description of Ethical Treatment of Human Participants

Research using human subjects can sometimes result in a quandary for researchers if due process was not followed (NIH, 2011). In this regard, it was important to value the rights and welfare of individuals participating in the study by showing respect which was embedded as a core principle for ethical research. As a requirement of the IRB, this principle in human subject research included beneficence, respect, and

justice. Beneficence involves protecting research subjects from harm and helping them secure their well-being (NIH, 2011). Respect is about granting the individual participants the autonomy to consider their opinions or choices without me in any way influencing the person's actions (NIH, 2011). Justice entails the assurance of fair procedures and outcomes in the selection of participants with its attendant fair distribution of benefits and costs to all the research participants (NIH, 2011). I adequately addressed all the concerns of the IRB by incorporating this core principle into my methodology.

The principle of beneficence required the acknowledgement and attempt to address as fully as possible any potential physical, psychological, economic, social, and legal risks. Although this researcher did not anticipate any risks, participants were given the opportunity to exit the research at any time they wished if they anticipated any risk or discomfort. The interviews were also open, voluntary, and convenient to participants such that they did not pose any psychological or physical stress to participants apart from that of normal life experience. The language of the interview protocol was not offensive, threatening, stigmatizing, or degrading and did not negatively affect participants in any way. No physical risk was expected in this study; however, research benefits in the form of enhancing knowledge of the phenomenon being explored were highlighted in the consent form.

Ethical Concerns with Description and Treatment of Data

I protected the research participants, built trust, and avoided any type of research misconduct (Creswell, 2009). One significant area of data treatment was to ensure there was no difference in the research purpose contained in the informed consent form and the actual purpose statement of the study. The Informed Consent Letter was another way of

expressing the principle of respect for participants. The participants' letter was developed using the guidelines of Walden University's IRB. As a standard, the content of this letter was non-coercive, non-threatening, and without attached conditions for participation in the research. The informed consent letter was explicit in stating why and how participants would participate in the research.

Data Treatment

All data collected from the field were kept confidential. All digitally recorded and written interview transcripts were safely stored electronically and non-electronically in a password-protected computer and a locked file cabinet in my home office and will be safely secured for a period of 5-years after the study is completed. Pseudonyms were used for all participants and their residences in order to protect interviewees' anonymity and confidentiality. After interviews were transcribed, I personally did a face to face member-checking for all participants who have no email addresses and delivered email to each interviewee a transcript of their interview and a member-check form for accuracy.

Upon my completion of the dissertation, each community (chief) will receive a copy of a brief summary of the findings of the study. The American Psychological Association (APA, 2010) recommended sharing research data with colleagues to promote advancement in the field of investigation. Loshin (2002) argued that data have both intrinsic and added value as a by-product of information processing whose degree of ownership depends on the value each interested party derive from using that information. Before the interviews, I delineated the rights, roles, and expectations of participants by clearly outlining what I could use the findings of this study for and the portion of the

study participants could benefit from in the inform consent form. This approach would put to rest any problems that may emanate in terms of data ownership in the future.

Personal Ethical Issues

As a researcher, I also played the role of an insider in the entire process of data collection, analysis, and interpretation. I had no financial interest in the findings of this study but sought to gain knowledge in addressing the research problem and questions. I reduced issues of conflict of interest by accurately reporting research findings, member-checking and generating rich and in-depth description of the findings.

<div align="center">

Summary

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The objective of Chapter 3 was to justify, analyze, and describe the use of a qualitative phenomenological design, the methods and methodology, and data analysis plan. A phenomenological design was the most suitable method that could generate rich information and in-depth understanding of the research problem. The research question probed whether Keta's relocation process due to slow-onset climate-induced change adequately met Rawls's criteria for social justice, and if not, what lessons could be learned that would be significant in informing policy decisions for future relocation plans.

The research design connected the relationship between research question, interview questions, data collection and analysis, and how saturation could be achieved. The data collection method was selective and focused on generating data through interviews with participants chosen using a criterion-based purposeful sampling technique. Data drawn from observation, interview, and documents review were organized, coded, and interpreted using Nvivo data management software. Ethical issues

were addressed in each component of the research design and described in detail the ways in which this study would adhere to ethical standards established by the NIH and the Walden University Institutional Review Board.

In Chapter 4 I discussed the data analysis and results including settings, demographics, data collection, recording of interviews, variations in data collection, and unusual circumstance. I also provide codes to themes, research findings, discrepant cases, and evidence of trustworthiness.

Chapter 4: Data Analysis and Results

The purpose of this qualitative phenomenological study was to gain an in-depth understanding of the lived experiences of adult family members of relocated Keta households, and to suggest to what extent their experiences can contribute to policy development and governmental response in developing a national relocation plan in Ghana for communities threatened by rising sea levels. The central government's resettlement program aims to ultimately resettle 1,200 households within the affected communities (Danquah et al., 2014). The first 100 housing units of resettlement were established in 2003, and as of May 2016, 573 housing units had been constructed and allocated to 573 households (NADMO, 2016). After completing this first phase of resettling the three communities, the central government intended to continue the resettlement program when funds become available (NADMO, 2016).

Research Questions

The central question for this study was as follows:

RQ: Does Ghana's national resettlement policy on climate change adequately meets Rawls's criteria for social justice, based on experiences of relocated adult family members of households from Keta?

Subquestions were:

SQ1: What are the perceptions of adult family members of their experiences of relocation and of the situations that affected their resettlement?

SQ2: In what ways, if any, have family households experienced complexities in their resettlement?

SQ3: In what ways, if any, has the resettlement program affected family households' human rights?

SQ4: In what ways, if any, has resettlement affected family households' livelihoods?

SQ5: What are the perceptions of relocated adult family members of the challenges government faced during the resettlement process?

This chapter begins a brief summary of the setting in which data were collected, demographic characteristics of participants, number of participants, and location, duration, frequency, recording methods, variations, and unusual circumstances of the study. Next, I explain the data analysis process and how the and the coded interviews evolved from precoded themes. Discrepant data, evidence of trustworthiness, and research findings are addressed. Chapter 4 concludes with a summary.

Settings

The research communities, Adzido (A), Kedzi (K), and Vodza (V), are located close to one another. Adzido and Vodza are adjoining communities separated by a road, while Kedzi is only about one mile away from Vodza. The people speak Ewe, English, and Twi, which made it possible for interviews to be conducted in English or Twi. The closeness of the three communities and houses made it easy to interview many participants in a single day. The proximity of the communities did not affect interviewees' responses, which varied from community to community, or the interpretation of the results.

Demographics

Age, gender, race, and occupation were recorded during field data collection. Community members were predominantly fishermen and fishmongers with a few traditional cloth weavers. Men and women (see Table 2) were interviewed to get a balanced perspective of how the communities experienced relocation. Most of the population originated from the Ewe tribe, and the remaining few were migrant settlers from other tribes.

Table 2

Gender Distribution of Participants

Name of Community	Male (M)	Female (F)
Adzido	M2	F1
	M4	F3
	M6	F5
Vodza	M9	F7
	M10	F8
	M12	F11
Kedzi	M14	F13
	M15	
	M18	F17

Data Collection

Data collection for this research involved interviews with participants, documents

review, and observation. Although six participants were initially proposed to be

interviewed from each of the three communities, one person in a household in Kedzi

declined to grant me an interview after initially signing the consent form to participate.

Table 3 compares the proposed and actual number of participants interviewed.

Table 3

Proposed Versus Actual Number of Participants Interviewed

Name (A, V and K - Community)	Proposed interviewees (M – Male) (F – Female)	Actual no. interviewed (M - Male) (F – Female)	Duration of interview in minutes
A- Adzido	AF1	AF1	62
	AM2	AM2	60
	AF3	AF3	54
	AM4	AM4	52
	AF5	AF5	64
	AM6	AM6	51
V- Vodza	VF7	VF7	50
	VF8	VF8	55
	VM9	VM9	56
	VM10	VM10	54
	VF11	VF11	60
	VM12	VM12	49
K- KEDZI	KF13	KF13	53
	KM14	KM14	57
	KM15	KM15	60
	KF16		
	KF17	KF17	48
	KM18	KM18	51
TOTAL	18	17	M = Mins

Though three different communities were involved, I used only one interview

protocol (see Appendix C), and each of the 17 participants was interviewed just once, at

an average duration of 55 minutes. All the interviews were conducted in the interviewees'

own houses at times agreed upon by both parties. Interviews were either conducted in the

interviewee's living room, in the porch, or at a business location. All interviews were

conducted in the last 2 weeks of May 2016. One person who initially agreed ultimately

declined to participate in the interview. I was not able to replace her but did achieve data

saturation. Prior to beginning the interviews, I spent 2 weeks talking informally with

community members and officials in order to build trust and familiarize myself with their

culture.

I also contacted some institutions that were involved in the relocation process to

acquire relevant documents. A total of four documents were collected from relevant

government institutions including NADMO, the Ministry of Works and Housing, and the

Planning Department of the Keta Municipal Assembly. Table 4 summarizes the

documents I collected.

Table 4

Summary of Documents Collected

Topic of Document	Source	Date Created
Minutes of meetings on Keta resettlement	Keta Municipal Assembly/Ministry of Works and Housing/	August 2000 to June 2001
Communities layout plan	Keta Municipal planning office/Ministry of Works and Housing	September 2001
Records of housing distribution	NADMO Keta Municipal office	May 2016
Compensations payments	Ministry of Works and Housing	November 2001

Recording of Interviews

During all 17 interviews, I made handwritten notes of the interviews on paper scripts and created audio recordings using a Sony voice recorder and a Samsung Galaxy S5 smartphone. Interviewees were notified about the interview through personal visits, and consent forms were given to each interviewee to provide a fair idea about what to expect in the interview prior to the actual interview. Consent forms were immediately verified and signed prior to the start of each interview, and interviewees were notified that interviews would be audio recorded.

Variations in Data Collection

Only one of the 18 participants selected finally declined to participate in a Kedzi community interview, explaining that the spouse who is the family head knows all that she knows about the relocation process and was in the best position to speak for both of them.

Unusual Circumstances in Data Collection

Having followed all the data collection procedures described in Chapter 3, certain unusual circumstances occurred during interviews. One such deviation was that lights went out when I was in the middle of an interview, which distracted the interviewee's attention. I immediately stopped the recorder and interview for 37 minutes until the lights came back on. Another unusual circumstance occurred when a participant was granting me an interview and a neighbor came in and interrupted us by greeting the interviewee. He stopped granting the interview and responded to the greetings. I quickly paused my recorders and stopped the interview until they finished exchanging pleasantries. Similarly, a particular household demanded I pay money before they could grant me an interview, but when I explained that my study was purely academic and no financial benefits were associated with the study as clearly stated in the consent form, the potential participants still refused. I replaced these persons with two people from another household who were willing to grant me an interview. Despite these unexpected interruptions, they do not appear to have had any negative impact on data collection.

<div align="center">

Data Analysis

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Overview

The data analysis process began by my moving inductively from the MCL (see Appendix E) generated from initial synthesis of concepts and theories (etic approach) to the themes generated from the participants' words and perspectives (emic approach). The process involved converting raw field data into transcripts and reducing participants' sentences into words and phrases. These words and phrases were uploaded into Nvivo 11 on a community-by-community basis for coding and analysis. The data collected from

the four governmental documents (see Table 4) were converted into document summary

and used to corroborate or disconfirm data generated from interviews and observation.

Even though the data collection occurred before data analysis, at some point in the

field, the two processes occurred concurrently or overlapped when interviews were

transcribed and sent back to interviewees for validation (member-checking). The criterion

sampling technique in the research design was intended to reach saturation. Saturation

was clearly manifested after I interviewed the 17th participant. I determined that sampling

more participants would not lead to more information related to the research questions.

Interview transcripts also showed interviewees' responses were consistent apart from a

few discrepant cases.

From Codes to Themes

The coding process began with an emic approach where I converted participants'

statements in the interview transcripts into words and phrases. I did the initial Nvivo 11

coding in nodes from the words and phrases generated from each community. This initial

round of coding generated the results shown in Tables 5, 6, and 7, which provide a

breakdown of the initial coding results from each of the three communities. The sources

indicate the data are from interviews of one community and the references represent the

member of interviewees who brought up the topic.

Table 5

Initial Coding Results of Adzido Community Interviews

Topic Word /Phrases	Source	References
Verbal abuses	1	4
Un-scattered families	1	1
Trauma	1	5
Transport Difficulties	1	4
Scattered Families	1	5
Safety	1	3
Refused to move	1	1
Poor education	1	1
No jobs	1	4
No compensation	1	3
No freedom	1	3
No difficulty	1	1
Loss of Properties	1	6
Lack of funds	1	1
Inconvenience	1	1
Inadequate Space	1	8
Improved Infrastructure	1	11
Freedom	1	2
Fair treatment	1	3
Dusty environment	1	1
Available jobs	1	1

The data shown in Table 8 show the results of reviews of four primary documents (see Table 4) as well as my observation of physical settings, participants' activities, and households' livelihood activities. The results were arrived at by determining the number of times the words and phrases corresponding with the initial master code list occurred in each document and the observation field notes.

Table 6

Initial Coding Results of Kedzi Community Interviews

Topic Word /Phrases	Sources	References
Verbal abuses	1	1
Unfair treatment	1	5
Trauma	1	7
Transport difficulty	1	3
Temporary settlements	1	4
Spiritual effect	1	1
Scattered families	1	5
No jobs	1	5
No idea	1	1
No funds	1	1
No freedom	1	2
No compensation	1	1
Loss of properties	1	8
Lack toilets	1	2
Lack of water	1	2
Inadequate space	1	5
Improved infrastructure	1	2
improved house before	1	2
Blood pressure	1	3

Table 7

Initial Coding Results of Vodza Community Interviews

Topic Word /Phrases	Sources	References
Unsatisfied with present job	1	5
Unfair treatment	1	4
Traumatic	1	11
Transport difficulty	1	4
Temporary Settlements	1	7
Scattered families	1	5
Safety	1	6
Lack of water	1	2
No jobs	1	9
No idea of government challenges	1	2
No funds	1	1
No freedom	1	3
Loss of property	1	8
Inadequate space	1	5
Improved infrastructure	1	3
Freedom	1	1
Dusty environment	1	1
Blood pressure	1	1

The research evolved into an etic orientation after the initial coding (see Tables 5, 6, 7, and 8) where I categorized the codes using the MCL (Table 9). I dropped two codes (*Background and Problem*) from the preliminary MCL because they did not arise anywhere in the data collected. Using an insider approach, I inductively coalesced second-level Word/Phrases (Table 10) from topic word/phrases and number of references displayed in Tables 5, 6, 7, and 8.

Table 8

Initial Coding of Results from Documents and Observations

Topic Word /Phrases	Sources	References
Lack of water	2	11
Shrines	2	10
Destruction	2	19
Loss of property	2	42
Improved housing	2	15
Compensation	1	16
Temporary settlements	2	18
No jobs	3	17
Inadequate space	2	17

Table 9

Initial Master Code List

Description	Code
Perspective (What are people's lived experiences of relocation and any situation that affects relocation?)	PER
Justice (How do people perceive the fairness of the way they were treated during relocation?)	JUS
Challenges (What are people's perceptions of the bottlenecks of relocation?)	CHA
Relationship (How does relocation affect people's connection with socio- cultural ties?)	REL
Livelihood (How does relocation affect people sources of meeting daily needs?)	LIV

Table 10

Word/Phrase Frequency

Word/Phrase	Frequency
Verbal abuse	5
Trauma	23
Scattered Families	15
Transport difficulty	11
No jobs	35
Lack of water	15
No freedom	8
Shrine	11
Loss of properties	64
Inadequate space	35
Improved infrastructure	31
Fair treatment	4
Unfair treatment	12
Temporary settlements	29
Blood pressure	4
Compensation	16
Safety	6

I used Nvivo 11 to analyze each of the word/phrases in Table 10 and the MCL in Table 9. Three themes emerged: no clear justice and fairness in the allocation of resources, household's relocation process was characterized by negative experiences, and governmental approach to relocation process was poor.

No Clear Justice and Fairness in the Allocation of Resources

The word/phrases *unfair treatment*, *inadequate space*, *no jobs*, *no water*, *transport difficulty*, *no compensation* and *poor septic facilities* all depict the lack of justice and fairness in the allocation of resources. From the Nvivo analysis of the phrase *unfair treatment*, 12 of the interviewees (AF5, AM6, VF7, VF8, VM9, VM10, VF11, VM 12, KF13, KM14, KM15, and KF17) stated that their relocation process was saddled with injustice in the allocation of benefits. KM4 specifically stated, "We heard about blankets, lanterns, mattresses, and clothes that were supposed to be given to us, but we did not see anything." Similarly, for the phrase *inadequate space*, 14 interviewees (AF3, AM4, AF5, AM6, VF7, VF8, VM9, VM10, VF11, KF13, KM14, KM15, KF17, and KM18) stated that they currently do not have enough space to accommodate their families as they used to have before. Additionally, *no jobs* was a serious concern to interviewees. Though 10 interviewees (AM4, AM6, VF7, VF8, VM10, VM12, KF13, KM14, KF17, and KM18) stated that they do not have jobs here, VM10 was emphatic when he stated, "I used to be a fisherman, but now I have no job and have to buy water from Keta to sell for a living." For the phrase *no water*, two respondents (VM9 and VM10) stated, "Water is a serious problem for us in this community. We don't have water." In the case of *transport difficulty*, VF8 stated, "the government gave some people money for transportation but we didn't get anything so we suffered a lot to bring our

belongings here." For the phrase *no compensation,* VM12 stated "The government didn't

compensate us for our old houses and lands which makes the entire process unfair."

VM9, VF11, and VM12 provided information that connects the phrase *poor septic*

facilities to the theme *no clear justice and fairness in the distribution of resources* in

agreeing that "some people have fully completed septic facilities. We were told to do it

ourselves, but we don't have the money to make toilets."

Negative Experiences of Households' Relocation Process

The finding of the theme that negative experiences characterized households'

relocation process was revealed by the word/phrases *loss of properties, trauma,*

hypertension, scattered families, spiritual effects, *effects on festivals patronage*, and

temporary settlements. In the case of the phrase *loss of property*, KF13 stated, "I am now

indebted to the bank because I lost all my properties including goods I borrowed money

to stock my shop." In a related story, KM14 told the story of "a retired teacher while

living in a temporary structure watched his house consumed by the sea and he collapsed

and died instantly." For the word *trauma*, VF8 described relocation as a "traumatizing

and painful process because we didn't know what was going to happen the next day."

Concerning the word *hypertension*, four respondents (VM9, VM10, KF13, and KF17)

stated that the loss of their properties to the sea coupled with relocation difficulties have

caused them to develop hypertension. With regard to the word/phrase *scattered families,*

three interviewees (VF7, KF13, and KM15) mentioned that some of their family

members have moved out of the community either because they could not withstand the

stress of living in temporary structures, inadequate space, or the lack of jobs in the

communities. About *spiritual effects*, KM18 stated, Relocation has affected us spiritually

because I no longer have any shrine and cannot treat people suffering from different ailments in our communities." In the case of *effects on festivals*, VM12 stated, "We used to have many people coming for our festival. But since we came to this new place the number has reduced drastically." For the phrase *no freedom*, eight interviewees (AM6, VF7, VM9, VF11, KF13, KM14, KF17, and KM18) mentioned, "We don't have freedom here because *here* is considered to be a well planned community so we are not allowed to make noise or play beyond some level." With regard to *temporary settlements,* AF5 stated, "I moved from one temporary structure to another and will you believe this is my fifth settlement? Such unstable life has affected every facet of our lives." The information provided by AF5 connects the word/phrase *temporary settlements* to the theme *households' relocation was characterized by negative experiences.*

Governmental Approach to Relocation Was Poor

The theme that the governmental approach to relocation process was poor is associated with the word/phrases *official abuses*, *people's refusal to move*, *no funds*, and *lack of education*. With respect to *official abuses*, VF11 indicated, "Government officials were hooted and demonstrations held against them by some community members due to failed promises." In the case of *people refusal to move,* VF7 described how people were skeptical about moving because "they didn't trust the government to fulfill its promises as such didn't want to be stranded after leaving their old houses." Within the phrase *no funds*, VM9 stated, "The central government has no funds to provide all our needs that is why some of us are still suffering." The information provided by four participants (AM4, AM6, VF11, and KM14) links the phrase *lack of education* to the theme *governmental approach to relocation process was poor* when they stated that their "communities were

not properly informed about how this relocation thing was about until we ended up here with nothing to do."

Discrepant Cases

Discrepant data are any data that do not fit or run counter to the themes established within this research. Patton (2002) described the significance of discrepant data as data very important in revealing deviant data that do not fit the dominant identified patterns. The analysis and discussion of discrepant data increases the credibility of the researcher's account (Creswell, 2009). Discrepant data are applicable to these research questions because there was evidence of data that contradicted two themes established within this research to be thoroughly discussed in the Research Findings sub section of this chapter.

Evidence of Trustworthiness

Credibility

The credibility or internal validity of this research depended on data saturation, triangulation, rigor, prolonged engagements, observation, participants' validation (member-checking), inclusion of discrepant cases, and peer review by Walden University scholars.

Significant engagement with community and interviewees was discussed in detail in Chapter 2. Saturation (also discussed in Chapter 2) was achieved by way of the narrow focus on the same research questions for all 17 participants of the three communities. The rich descriptions in interviews enabled an in-depth understanding of the central phenomenon of this study and enhanced the credibility of this research. Still, the methodology somewhat restricted transferability. The study incorporated all the views of

the interviewees from the three communities in response to the research questions. Criterion sampling adopted in this research increased credibility by allowing me to replace two household members who declined to grant me an interview in the early stage of data collection.

Saturation and triangulation were closely linked. A review of four critical policy documents along with participant observation in the three communities complemented the interview data by providing corroborative details from alternative sources. The three data sources provided convergent conclusions, thus leading to the achievement of triangulation. The use of multiple sources for triangulation enhances rigor—which is another characteristic of credibility justifying how researchers arrive at it (Gasson, 2004). This study thus has credibility due to the rigor from triangulation. Credibility was further enhanced by the prolonged engagement I had with the community members and each of the participants during interviews. Before the actual data collection started, I developed strong familiarity with the community members and their culture by having several preliminary meetings with them that facilitated the establishment of trust between us.

Field observations of the physical settings of the communities, participants' activities and interactions, communities' sources of livelihoods, size of houses, and social infrastructure provided rich data that buttressed what participants stated in interviews. Direct observations also added new information that was not provided by participants, which further enhanced the credibility of this research.

In the same vein, member checking also enhanced credibility (Table 11).

Table 11

Member Checking

Participant	Date interviewed	Member checking date	Date returned	Modification needed
AF1	May 24	May 25	May 25	No
AM2	May 24	May 26	June 17	Yes
AF3	May 24	May 25	May 25	No
AM4	May 24	May 25	May 25	No
AF5	May 26	May 25	June 5	No
AM6	May 26	May 27	May 27	No
VF7	May 26	May 27	May 27	No
VF8	May 26	May 27	May 27	No
VM9	May 28	May 29	June 15	No
VM10	May 28	May 29	June 15	No
VF11	May 28	May 29	May 29	No
VM12	May 28	May 29	June 10	No
KF13	May 30	May 31	May 31	No
KM14	May 30	May 31	June 11	No
KM15	May 30	May 31	June 5	No
KF17	May 31	June 2	June 15	No
KM18	May 31	June 2	June 2	No

One participant (AM2) made a correction to his initial statement that "I am a member of the Keta resettlement Task Force" to "I was a member of the Keta resettlement Task Force." No other participant made any changes to the originally transcribed interviews given to them for review. I used a face-to-face approach for member checking for nine participants (AF1, AF3, AM4, AM6, VF7, VF8, KM18, VF11, and KF13) who did not have email addresses. Eight participants (AM2, AF5, VM9, VM10 VM12, KM14, KM15, and KF17) returned their member checking forms via email. My assumption is that the extremely minor modification made to one member checking form did not affect the credibility of this research.

The inclusion of discrepant cases strengthened the credibility of this research. As will be discussed below, analyzing discrepant data such as *fairly treated*, *no transport difficulty, available jobs, adequate space, un-scattered families,* and *dusty environment* that run counter to or do not fit the themes established within this research significantly increased credibility. Creswell (2009) would support the findings of this research by arguing that discussing contrary information increases the credibility of the researcher's account.

Finally, the use of my dissertation committee as peer reviewers makes this research highly credible. Within Walden University's peer review process, the University's dissertation committee guided by the chair, member, and university research reviewer's (URR) specialized areas of expertise helped guide the research throughout. Both the content and methodology of this research fit into the areas of expertise of the committee members. Even within the research process, there was the need for validation of prospectus, the dissertation proposal (with oral defense), Institutional Review Board's

(IRB) approval of field interviews, and the completed dissertation (with oral defense). All these processes required revisions with the aim of ensuring that the completed research was credible. Morrow (2005) would support the outcomes of this research by arguing that the credibility of research can be achieved by saturation, prolonged engagement with participants, member checking, persistent observation, peer reviewers, and negative case analysis.

Transferability

Although this research is highly credible, transferability is limited. Despite my having provided thick description of the findings, these descriptions are based solely on criterion-sampled participants. Other relocated Keta adults might have had different experiences, and so the findings of this research make generalization to all relocated adults unfeasible. The findings of this research should be transferable to relocated adults in other coastal communities similar to this study's participants. Morrow (2005) would support findings of this qualitative phenomenological research by arguing that the findings are not generalizable in the conventional sense.

Dependability

As discussed in Chapter 3, this study was designed such that participants had the opportunity to review their interview transcripts to eliminate any errors and thus ensured the outcomes of this research are reliable. I paid adequate attention to details during the research design, data collection, and data analysis processes thus improving the dependability of this study. By maintaining trustworthiness with the research design execution, a different culturally-situated researcher could replicate this research with similar results. As explained, no modifications were made in the research design and only

minor procedural details in selection of participants were required. These modifications strictly adhered to ethical principles described in Chapter 3. As discussed in recommendations in Chapter 5, this research design is very likely to be useful in assessing the lived experiences of relocation in other coastal communities similar to Keta.

Confirmability

Morrow (2005) suggested that the integrity of research findings is dependent on the data; hence, the researcher needs to adequately tie together the data and analytical procedures for handling data with the findings to assure confirmability of the findings. To this end, I addressed any concerns regarding my role as a researcher that could restrict confirmability through strict adherence to ethical requirements, rigorous research design, and neutrality in the field. Though an insider, I converted all the raw field data into findings with special care to avoiding bias. I also gave a detailed and rigorous chronological account of all the research activities and procedures including the themes that emerged as well as discrepant cases.

Research Findings

No Clear Justice and Fairness in the Allocation of Resources

This study shows that relocation of the three communities of Keta resulting from slow-onset climate-induced environmental change showed no clear justice and fairness in the allocation of resources. This inequity has contributed to an unequal standard of living amongst community members. AF5 and VF7 stated. "We were not fairly treated at all in the allocation of everything necessary for life with some getting everything and others getting nothing." In a related story, VM12 said, "This houses allocation thing is not fair at all because we know some people who originally are not from here and were not affected

by the sea destruction but they managed to get houses here whereas some of us still don't

have places to sleep."

The lack of clear justice and fairness in resources allocation has had significant

ramifications for various facets of these Keta communities' livelihoods. One such

difficulty is the lack of adequate space for relocated households. VF7 stated, "We pack

ourselves in the night like sardines because we do not have enough space and this is

leading to poor living conditions and major health implications." The overall goal of

relocation is to provide affected communities with livelihoods close to their former lives

or better. The present houses do not, however, fully meet the expectations of the majority

of the households in terms of the ability to accommodate families and visiting relatives.

Findings from interviews and field observation revealed ongoing extension works in

some houses in order to increase the number of rooms. These households have the means

to add a few more rooms, but those who do not have the means have to manage with

what they already have.

Documents review at the Ministry of Works and Housing showed that a task force

was set up for the Keta resettlement project. The final task force report indicated that

determining the types of houses to be constructed for individuals who previously owned

houses was based on weighted factors of values of the houses, the number of rooms per

each house, and the materials used in constructing the houses. Houses were thus

categorized as follows: Class A, four rooms; Class B, three rooms; Class C, two rooms;

and Class D, one room. The report further clarifies that individuals were not allowed to

put up their own houses to suit individual tastes because of fear that the new settlement

would degenerate into slums. This clearly contradicts the anticipations of households that their family sizes were going to be the basis for the allocation of houses.

The central government did not provide job opportunities for resettlement communities. As a result, the unemployment rate is high in the communities. As VM10 stated, "I used to be a fisherman, but now I have no job and have to push my truck to Keta to buy water to sell for a living." In another development, AF5 stated, "I used to be a fishmonger but due to relocation am now far from where I used to get the fish rendering me jobless." The fact that jobs were not created for household members who are fishermen and fishmongers makes them face challenges in meeting their daily livelihood needs and thus presents a clear case of lack of justice and fairness in the relocation process. Interviewees believed that the problem of joblessness could have been reduced if the central government had created alternative livelihood opportunities for the affected communities.

According to the Ministry of Works and Housing (2001), the present communities' layout plans were to include the provision of schools, hospitals, rural banks, hotels, playgrounds, markets, churches, tourist villages, police post, cemeteries, fish processing, and net mending sites. The analysis of field interviews and observation revealed, however, that only two schools with playgrounds and a health post have been constructed in the three communities. None of the remaining projects earmarked in the government's final task force report on Keta relocation has been provided. The proposed amenities in the communities' layout plans, if provided, could have created or facilitated the creation of many jobs for the affected communities thus reducing the current high unemployment rate in the area.

Another difficulty that epitomizes no clear justice and fairness in the allocation of resources is the scarcity of running potable water in the communities. As VM9 put it, "Water is very necessary for our lives, but as you can see there is no water, no pipes in these communities, our wives and children are bringing water from the seaside everyday which is not even drinkable because of the salt." During the interview, VM9 drew my attention to women and children carrying water from the seaside (see Figure 5A) as a way of buttressing his perception of the unavailability of water in the communities. My field observation of the three communities equally showed the lack of running water in the communities. I saw several dugouts at the seaside (Figure 5B) where residents fetch water for use on daily basis. The Keta resettlement task force final report indicates that the central government did not make provision for the supply of running water in the communities: "Four housing types have been proposed to be built for the resettlement option, electricity and running water system are excluded" (Ministry of Works and Housing, 2001, p. 7).

Similarly, the availability of transport for the evacuation of people and their properties to the new settlement constitutes an important factor in a relocation process. KF13 stated, Thee government gave some people money for transportation but we didn't get anything so we suffered a lot to bring our belongings here. I had to use a canoe and at some point my head to carry my load because I didn't have the money to hire a car.

Allocating resources to disaster stricken communities should be done with fairness where all victims benefit equally. The central government's decision to give money to some community members for transport to relocate while denying others does,

however, constitute a clear case of no clear justice and fairness in the allocation of resources.

<div align="center">A   B</div>

Figure 5. Author's photo showing a woman and two children carrying water from the beachside (A) and dugouts at the beachside where they fetch water (B).

In addition to transport difficulty, this research found that no compensation for community members' old properties is another case of no clear justice and fairness in the allocation of resources. VM12 stated, "The government did not compensate us for our old houses and lands, which makes the entire process unfair." In this instance, participant interviews contradicted the review of the final task force report document on Keta resettlement (Ministry of Works and Housing, 2001). The report indicates that the task force did not recommend cash compensation to individuals who originally owned houses because of fear that the claimants might use the money for other pressing family needs and refuse to build thus rendering them homeless. In addition, claimants might accept the

cash compensation but refuse to vacate their old homes threatened by sea erosion. Based on the disadvantages associated with cash compensation, the task force recommended the construction of affordable houses for the affected households using the values of the houses, the number of rooms per each, and the materials used in constructing the houses. On the issue of no compensation for old lands, the task force identified and recommended the payment of compensation only to owners of empty/vacant plots (Ministry of Works and Housing [MWH], 2001, p. 49). The government also directed that all land resulting from the reclamation belongs to the central government and that any individual who needs a parcel of land for development should follow due process to acquire it (MWH, 2001).

One potential reason stands out for the communities' claim there was no compensation paid to them for their old houses and lands: The task force in charge of the resettlement process failed to explain to them how it arrived at the decision to construct new houses for them without cash compensation for their previous property. A list of all beneficiaries of such compensations is contained in the task force report. No proof could be located that those recommended for compensation did actually receive their monies, however.

Furthermore, the decision of the government to provide septic facilities to some community members whereas others did not get them is an observable case of no clear justice and fairness in the allocation of resources. AM6 stated, "The government constructed full toilets for some people in Adzido but told us there is no money so we should do by ourselves. Because of this some people go to the beachside to defecate." The field observation I conducted buttressed the interview findings as a few households

have toilet facilities, but some other people choose to use the beachside for excretion. Nowhere in the Keta resettlement final report does the document mention provision of septic facilities for households. The inability of the government to provide septic facilities to all households could lead to deteriorating living conditions and health hazards.

Negative Experiences of Households Relocation

Several factors contributed to the negative experiences that characterized households' relocation process. Amongst some of these detrimental experiences is the *loss of properties*. KM14 stated, "Some of us do not have anything today because we lost our properties to the sea, or through the temporary settlements because we could not carry many things and sometimes through burglary at the temporary sites." The loss of properties supports the assertion by Burkett (2015) that one of the most common risks associated with resettlements due to natural disasters is loss of properties.

In like manner, *settlement in temporary structures* is a negative experience that characterized households' relocation process. As VF8 stated, "This is my fourth settlement. I have moved from one temporary structure to another before finally settling here. Sometimes we slept by the roadside outside with our belongings, stayed in tents, with families and friends, and even in government buildings like schools, it was just not easy."

The findings from interviews and documents review of this research showed that temporary settlements exposed households to many risks including loss of properties, poor living conditions, and physical and psychological exhaustion. Review of documents of the Ministry of Works and Housing (2001) on Keta resettlement indicated that initial

design of the Keta Sea Defense Project (KSDP) was reclamation of the land and did not address the relocation issue. Thus, funding for relocation was not provided. Relocation was therefore an afterthought when the sea defense project was about to start, and no proper planning for relocation was put in place. This explains why the resettlement process was shrouded with complexities as found in the interviews.

Additionally, *trauma* was one of the complexities that affected households went through during the resettlement process. VF8 described relocation as "traumatizing, suffering, and a painful process because we didn't know what was going to happen the next day." Relocation does subject people to physical and psychological stress. Hence, it is significant that the process be well planned to mitigate the stress affected communities go through in the name of relocation. These physical and psychological stresses, if not mitigated early, may lead to health implications including psychologically induced hypertension.

Some household members have developed psychologically induced hypertension from the relocation process. As KF13 stated, "I now have hypertension because I used to think about all the things I lost and all the stress I went through with my children from one temporary structure to another until now." The complexities associated with resettlement require that the health status of resettled communities be assessed to ensure they are safe from any stress and psychological related diseases. To the contrary, my research suggests that the government has conducted no voluntary health screenings since the resettlement process to assess the health status of affected households.

Another negative experience that characterized households' relocation process is *scattered families*. KF13 stated. "Most of my family members and neighbors have left the

communities for Accra and other places. If we need them for family meetings we call them sometimes they do not even come because is far." As discussed earlier, this research found from the interviews that some members move out of the communities due to inadequate space or in search of jobs. VM9 narrated how the movement of some members out of the communities is having a telling effect on their culture: "We used to have a traditional dancing group here but now is difficult to organize our members because most of them are out of the community." VF7 said, "My brother just returned from Accra where he now works as a store-keeper. How could he get that job if he had not moved out? Most of our people are scattered, and it affects us in some way and also benefits us in so many ways."

Spiritual effect is another issue that exemplifies negative experiences that characterized households' relocation process. As KM18 stated, "Relocation has affected us spiritually because I no longer have any shrine and cannot treat people suffering from different ailments in our communities." Shrines are the spiritual backbone of the three relocated communities as they consider them as part of their culture. My review of the Ministry of Works and Housing (2001) final task force report indicates that 20 shrines were recognized and recommended for payment of compensations to shrine owners in the communities. These shrines are constructed in some designated areas of the community which are considered sacred places where the chief priest acts as the head of the shrine. During field observation, I did not see a single shrine in any designated area in any of the three communities. It is therefore difficult to ascertain whether shrine owners collected compensations but failed to put up the shrines or the government did not pay them the compensation to reconstruct the shrines.

Furthermore, *effect on festivals* is one other negative experience that characterized households' relocation process. VF11 stated, "Since we came here, patronage of our festivals has gone down because when our relatives come they do not get places to sleep so they choose not to come or come briefly and go back. Research identified a festival in Vodza community called "Dunenyo-za," meaning *festival for development* in the local parlance. Interview findings showed that there had been a low patronage of the festival since the relocation process, which affects not only the development of their culture but businesses as well.

Finally, *no freedom in their current location* exemplifies another negative experience that characterized households' relocation process. VM9 stated, "Since we came to this new place, traditional entertainment is almost dead because we are not allowed to make noise and the excuse is that, this place is a well planned community." Throughout the days I lived in the communities, I did not witness any traditional entertainment activities that customarily characterize rural households in Ghana.

Governmental Approach to Relocation Process Was Poor

Many factors indicate that the governmental approach to the relocation process was poor. Official abuse was one of the issues that characterized the relocation process. VM12 highlighted how some community members demonstrated against government officials because of unfulfilled promises: "They did not give us what they promised us so some people demonstrated against them, others insulted them." Relocation is a social justice issue that requires providing affected communities with the appropriate amenities necessary for living (Rawls, 1999): hence, any promises made by government that it fails to fulfill can result in dissatisfaction among community members leading to attacks on

officialdom. Findings from interviews, documents review, and observation showed several projects earmarked in the communities' layout plans that were not in evidence during field observation. These unfulfilled promises support the claim by Nayak (2015) that government inability to fulfill promises made to disaster victims could be a recipe for conflicts between the victims and the government.

In the same fashion, people's refusal to move from their old houses to the new settlements demonstrates that the governmental approach to relocation was poor. VF7 stated, "People were skeptical to move because they did not trust the government to fulfill its promises and did not want to be stranded after leaving their old houses." In corroborating VF7's story, AM2 said, "It was difficult moving people because they thought the government was deceiving them." Trust is an important factor in facilitating the adaptation and recovery process of disaster stricken communities. As discussed previously, the government had failed to provide relief items to some of those who were affected by the sea erosion thus adding misery to the already traumatized population. Asking them to move out of their old houses to pave the way for reclamation of land by the government was therefore viewed as a way of compounding their situation since they had experiences of unfulfilled promises. Field observation revealed a few people who defied all odds to move although their area was not part of the reclaimed site.

Lack of funds is one factor that contributed to the poor governmental approach to the relocation process. VM9 believed that "the central government had no money to provide all our needs and that is why some of us are still suffering." As discussed earlier, a review of the Ministry of Works and Housing (2001) document on the Keta resettlement task force final report showed that relocation of communities was not part of

the initial Keta Sea Defense Project: hence, funding was not provided. According to the report, the relocation of the communities was considered the responsibility of the government. The construction of houses in phases, as well as the inability of government to provide certain amenities including septic facilities and running water to all the households, demonstrates the lack of funds and poor approach to the entire resettlement process.

In summary, the lack of proper education of households is another factor that might have led to the poor governmental approach to the relocation process. VF11 stated, "Our people did not know what the whole relocation process was about, all we heard was government was going to send us to a different place as to how and where I did not know until I got here." With proper education, some of the negative experiences that characterized households' relocation could have been mitigated. Again, households' complaints such as inadequate space, no water, and poor septic facilities among others could have been avoided if government officials had educated the community members what they should expect and why certain amenities could not be provided. Similarly, the official abuses and demonstrations against government officials could have been alleviated if proper education was given to community members regarding their benefits and burdens. Nowhere in the Ministry of Works and Housing (2001) review of the Keta resettlement task force final report the education of community members on the relocation process ever mentioned. This, therefore, gives credence to the findings that government officials did not give proper education on the relocation process.

Discrepant Cases

Discrepant data are applicable to the research question since there was evidence of data that contradicted two themes established within this research, as well data that did not fit into the RQ. Within the theme of no clear justice and fairness in the allocation of resources, a majority of the participants stated the lack of fairness in the allocation of resources. AF1 stated the contrary: "I was fairly treated because I got everything I needed." Evidence shows that the communities resettlement process was done in phases and those who were among the first phase of settlement got almost all the facilities provided in their houses. Hence, the assertion of AF1 could be correct because AF1 was resettled in the first phase of the project. It is, however, uncertain why government provided some facilities for others but not all.

Whereas most households complained about inadequate space, VF7 stated that "we have enough rooms and space and my family is okay without complaining about overcrowding." As previously discussed, the number of rooms a given household could get depended on the valuation of that household's previously owned old house. It could be that VF7's old house qualified for a Type A house.

Similarly, despite that a majority of household members complained about transport difficulty during relocation, three participants indicated there was no transport difficulty. P4 stated, "The government gave me money for transport so I did not have any problems bringing my belongings here."

Lastly, though the unavailability of jobs was immediately apparent in the community, with the overwhelming majority of community members complaining of no jobs, VM2 held a different opinion that there are jobs. He stated, "I am now running a

business office, as you can see, so there are jobs." Research revealed that VM2 was a local government representative and a member of the resettlement task force at the time of the relocation process and could use his influence to get certain things.

Within the theme *negative experiences characterized households' relocation process*, although the majority of the participants indicated that the relocation process caused some of their family members to move to other communities and cities, AF5 stated that "the relocation process has no effect on my family size, all of us are still together here." Findings show not every family lost members to other communities or cities, and AF5's family could be one of those whose members did not leave the community to settle elsewhere.

Apart from data running counter to the themes established within this research, *dusty environment* is an example of collected data that do not fit into any of the themes the research established. VF7 stated, The major problem we face here during *harmattan* season is where the whole place is dusty and our eyes are full of sand." The research findings showed that the current place where the three communities are settled was reclaimed using sand from the Keta lagoon, thus making the land sandy and without vegetation. The dusty environment exposes the communities to other health hazards, including respiratory diseases.

Summary

This phenomenological study assessed the lived experiences of Keta communities' voluntary relocation resulting from slow-onset climate-induced environmental change. Three key findings were established. First, there was no clear justice and fairness in the allocation of resources to household members. The research

identified unfair treatment, inadequate space, no jobs, no water, transport difficulty, and uneven distribution of septic facilities as issues that constitute the lack of clear justice and fairness in allocating resources to household members. Second, negative experiences characterized households' relocation process. Negative experiences, including loss of properties, temporary settlements, trauma, hypertension, scattered families, spiritual effects, effects on festivals, and no freedom, characterized households' relocation process. Third, the governmental approach to relocation was poor. Issues of official abuses, refusal to move, no funds, and no education are issues that led to the poor approach of government to the relocation process. Cases of discrepant data were also identified and addressed.

Chapter 5 presents a review of the research questions, an interpretation of findings, contributions to the scholarly literature on relocation due to slow-onset climate-induced events and the theory of distributive social justice, limitations of the study, recommendations for further research and action in public policy and administration, and the positive social change implications of the findings.

Chapter 5: Discussion, Conclusions, and Recommendations

The rationale for this qualitative phenomenological research was to increase the awareness and understanding of the difficulties associated with the relocation of communities in Keta due to slow-onset climate-induced environmental change, and to suggest ways their experiences can contribute to governmental response in developing a national relocation plan for future at-risk communities in Ghana. The Keta resettlement program which began in 2003 aims at relocating 1,200 households within the affected communities (Danquah et al., 2014). The first 100 housing units of resettlement were built in 2003, and as of May 2016, 573 housing units had been constructed accommodating 573 households (NADMO, 2016). After completing the resettlement of the three communities, the central government intends to continue the resettlement program for other communities when funds become available (NADMO, 2016).

Research Questions

The central question for this study was as follows:

RQ: Does Ghana's national resettlement policy on climate change adequately meets Rawls's criteria for social justice, based on experiences of relocated adult family members of households from Keta?

Subquestions for this research were:

SQ1: What are the perceptions of adult family members of their experiences of relocation and of the situations that affected their resettlement?

SQ2: In what ways, if any, have family households experienced complexities in their resettlement?

SQ3: In what ways, if any, has the resettlement program affected family households' human rights?

SQ4: In what ways, if any, has resettlement affected family households' livelihoods?

SQ5: What are the perceptions of relocated adult family members of the challenges government faced during the resettlement process?

This study used interviews (*N*= 17), a review of four documents, and observation to better understand the attendant complexities household members faced during relocation. Three key findings and a few discrepant cases were generated from this research.

1. Households' relocation process showed no clear justice and fairness in the allocation of resources that created inequality in terms of households' living conditions.

2. Many negative experiences characterized households' relocation process. These negative experiences might have contributed partly to a decline in their living standards as well as having both physical and psychological effects on household members.

3. Governmental approach to the relocation process was poor.

Findings show that most of the issues constituting lack of justice and fairness in the allocation of resources, and the negative experiences households went through were due to poor handling of the relocation process by the central government.

Despite this, in several discrepant cases a few household members thought the relocation process did not affect them in any way.

Interpretation of the Findings

The findings confirmed and increased current knowledge on relocation as an adaptation to slow-onset climate-induced environmental change. Significantly, the findings underlined the negative experiences that characterized households' relocation process, affirming the Pushpalal and Danar (2014) claim that the relocation process affects social, cultural, economic, and political aspects of people's lives. Also, the findings underscored that the governmental approach to relocation was poor, thus corroborating Martin's (2010) assertion that policymakers have been slow in developing policies and assuming organizational responsibilities to address slow-onset climate-induced environmental events. This study extends Rawls's (1999) theory of distributive social justice and Jun's (2012) critical theory framework to slow-onset climate-induced environmental change by presenting an in-depth understanding of the lived experiences of relocated coastal communities in Keta, Volta Region, a previously unaddressed area.

Climate Related Causes of Relocation

Findings show that community members believe that climate change can still cause future relocation in Keta. AM2 indicated that climate change will cause relocation for some years to come: "We are not far from the sea. It was like that some years back before we were inundated by water." KM14 corroborated AM2's assertion by stating how town people were "far away from the sea some years back and nobody ever thought their houses and lands would have been taken over by water one day." Both believe it can happen again.

Documents reviewed showed that NADMO has earmarked some parts of Keta and three more communities (namely, Horvi, Fuveme, and Havedzi) for relocation

because of persistent erosion and flooding in these areas. At least one NADMO choice was corroborated in a Setrodjie (2016) that high waves had destroyed homes and properties at Fuveme in the Keta Municipality. The assertions of AM2 and VM14 confirm the broad consensus that the coastline of Ghana has changed significantly over the years as a response to climate change, and the worst affected area is Keta (Anim et al., 2013; Boateng, 2012; Oteng-Ababio et al., 2011).

Effects of Relocation

Interviews and observations showed that climate-related events have had negative effects on community members. One such negative effect is the lack of employment for members of resettled households, resulting in poverty. This finding confirms Bala's (2006) claim that resettlement may end up creating poverty, termed *process-related poverty* or *the new poor*. VM10 stated, "There are no jobs here for us to do, and that makes life difficult because we cannot get money to buy what we want." KF13 corroborated that by stating, "I lost my properties including goods I borrowed money to stock my shop." The assertions of VM10 and KF13 confirm the claim by Burkett (2015), who suggested that some of the most common risks associated with resettlement are unemployment and loss of properties. Interview findings revealed that the loss of properties was not only caused by sea erosion but also by burglary at temporary settlements. Against this background, the central government would have been expected to take steps in providing affected communities with the needed security to ensure that they did not further lose their properties for reasons other than sea erosion.

The assertions from VF7, VM9, VF11, and KM18 confirmed Edwards's (2013) assertion that climate-induced resettlement affects traditional and cultural lives of the

people. VF7 stated how relocation has caused some of his family members and neighbors to move to other communities. VM9 indicated that the lack of freedom in the communities restricts their access to traditional forms of entertainment. As disaster-stricken communities, they should have access to varieties of entertainment that will enable them to temporarily forget about what they went through. Putting restrictions on their way of life will not, however, facilitate the adaptation and disaster recovery process of the trauma they experienced during relocation.

VF11 said that festival patronage has gone down in the face of inadequate space to accommodate relatives and friends, which has affected businesses and social life. Similarly, KM18 lamented the inability to treat people suffering from various ailments because of the absence of shrines in the community. The responses of VF7, VM9, VM10, VF11, KF13, and KM18 confirmed the general consensus in the environmental- and climate-related literature (Burkett, 2015; Edwards, 2013; Mishra, 2014; Pushpalal & Danar, 2014; Stal, 2011; Tabucanon, 2014) suggesting that climate-induced resettlement leads to unemployment, causes social disintegration, and affects the socioeconomic, traditional, and cultural lives of the people. The current research also extends knowledge suggesting that relocation can lead to trauma and the development of psychologically induced diseases such as potentially fatal hypertension.

Relocation and Social Justice

The dissatisfactions expressed by AM4, VF8, VF11, and VM12 confirmed the claim by Nayak (2015) that resettlement does not ensure equal compensation and distribution of benefits. AM4 indicated how their current houses are inadequate to accommodate their families compared with where they lived previously. VF8 pointed out

how family members encountered transportation difficulties because they were not given money whereas others were given money for transportation. VF11 mentioned that some households were provided with septic facilities while the majority of the households did not have septic facilities. Additionally, VM12 described how the lack of compensation for their old houses and lands has affected their socioeconomic lives. AF5 confirmed the assertions of AM4, VF8, VF11, and VM12 by stating that they were not fairly treated in the allocation of resources necessary to ensure a meaningful living standard.

Furthermore, the research findings extended knowledge in the field of relocation from slow-onset environmental events by revealing that a basic necessity for life such as water was not adequately provided in the relocation process. VM10 mentioned how the lack of running water in the communities forces women and children to draw water each day from dugouts from the seaside. Water is a basic need and a human right issue, and any resettlement process that does not include a provision for potable water is a violation of human rights and presents a social justice issue. As Rawls (1999) pointed out, the plans and activities of residents need to be carried out successfully without anyone's legitimate expectations being severely thwarted.

Another strengthened knowledge area was the effects of relocation on job loss. AM6 described how the loss of jobs has made life difficult for them and their inability to fulfill their needs and wants. The unavailability of jobs and inadequate supply of water in relocated communities are human rights and social justice issues that can affect the adaptation and disaster recovery process of these disaster stricken communities. The broad consensus from Bala, (2006), Behera (2014), and Nayak (2015) that resettlement projects result in inequitable distribution of benefits, violation of human rights, and

deterioration in socioeconomic conditions resulting in social justice and equity issues was
confirmed by the responses of AM4, AF5, VF8, VF11, and VM12.

Role of Government in Relocation and Adaptation

Despite the challenges that households have faced and the lack of a national
relocation blueprint, the government has for the first time completed the first phase of
relocating the three communities of Adzido, Kedzi, and Vodza. The government's ability
to complete the relocation process confirms Nicholson's (2013) claim that climate change
is a growing concern and a prominent political and economic issue that has forced
policymakers to focus on developing both mitigative and adaptive actions. Completion of
the first phase of the relocation process suggests that Huntington et al.'s (2012) warning
of passing a political tipping point—a point at which governmental response is forced or
impossible, and where economic cost of relocation could result in the government's
inability to relocate villages—has not yet occurred in Ghana. Significantly, this finding
has implications for policymakers who may consider the relocation of villages such as
Horvi, Fuveme, and Havedzi (see Figure 3) as an adaptation measure. This research
suggests that relocation is still possible in Keta Municipality and, more broadly, Ghana,
because the tipping point has not been passed. Still, although the tipping point has not
been passed, relocation of the three communities in Keta does not guarantee that tipping
point cannot be passed in the future. The findings also extended Nicholson's (2013) claim
that climate change forces policymakers to make policy decisions on mitigative and
adaptation measures. The completion of the first phase of the Keta relocation process
confirms that a climate tipping point did not cause a political tipping point where the
relocation of communities could not have been executed by government.

Despite the completion of the three communities' relocation process, the governmental approach to relocation was poorly planned and executed. The findings thus confirm Kolmannskog (2012) and McDowell (2013), who asserted that governmental response to resettlement due to natural disasters is still poorly understood, and little evidence exists to show that the magnitude of future resettlement challenges is taken into consideration.

Theoretical and Conceptual Frameworks

The central phenomenon of this research was to determine whether Keta's resettlement met Rawls's (1999) criteria for social justice. Findings show that the Keta relocation process did not meet these criteria. First most household members were treated unfairly in the allocation of benefits, had inadequate space to accommodate families, and no freedom to engage in traditional forms of entertainment, which were considered a nuisance in the new settlements. These findings thus provide evidence that Rawls's (1999) first proposition, the rights of everyone to basic liberty, was not met

Second, the findings revealed no clear justice and fairness in the distribution of basic amenities such as water, transportation, septic facilities, and creation of jobs. The Keta process violated Rawls's (1999) second proposition: Social and economic disparities must be arranged in a way that is expected to be to everyone's advantage. Keta policymakers did not adhere to Rawls's (1999) interpretation of social justice as the principles that govern the distribution of rights and duties as well as the appropriate distribution of benefits and burdens of social life. In disaster affected communities, under Rawls's criteria, all benefits should have been appropriately distributed amongst the victims to facilitate their adaptation and disaster recovery process. The current situation

of the communities does not only fail to meet Rawls's criteria for social justice, but has adversely affected the adaptation and the recovery process of the communities.

The critical theory conceptual framework served as an analytical framework for understanding and interpreting the research findings. It provided the basis for the analysis and understanding of households' social and cultural experiences, as well as an evaluative framework for the governmental institutions' approach to the relocation process. Research findings therefore confirm Jun's (2012) assertion that the critical theory conceptual framework offers a theoretical lens that helps in examining political, institutional, cultural, and social dimensions of a complex phenomenon. The social construction approach of critical theory (Jun, 2012) focuses more on social reality constructed in light of people's ideas and interactions. The constructionist approach was thus evident in the findings of this research, as participants attached meanings to what they experienced and how these meanings could become objectified aspect of public policy.

Limitations of the Study

The scope of this research was limited to the three communities of Keta relocated due to climate-induced environmental events between 2003 and 2016. Hence, generalizability to other communities, such as Fuveme, Havedzi and Horvi, is not possible unless the environmental conditions of such areas are analyzed separately. The experiences of the three resettled communities provide a critical framework for policy development that is likely to be transferable throughout West Africa and other parts of the world.

Another limitation of this study is that adaptation responses cannot be rated such as groynes (protective barriers), counterattack (combination of protection and reclamation), no action, and relocation depends on technical, economic, institutional, cultural, and social factors. Therefore, the specific nature of the central phenomenon of Keta relocation process limits any comparison of different adaptation responses. To this end, this research may not help policymakers in determining whether relocation is the best adaptation option to slow-onset climate-induced environmental events than the other adaptation responses.

Recommendations

This research is limited to transferability. Knowledge of the lived experiences of Keta relocation due to slow-onset climate-induce environmental events would profit from successive studies that examine a different community other than the three communities and compare the results possibly using a mixed-methods research approach.

Because I found that negative experiences characterized Keta communities' households' relocation and adaptation process, I recommend that future should address effects of relocation on household members. In this regard, I recommend a quantitative study on the effects of relocation on household members of Keta. This approach may extend the findings from this research that negative experiences characterized Keta households' members' relocation process.

As it stands now, it is difficult to propose to policymakers which adaptation response is better suited for communities threatened by slow-onset climate-induced environmental events than the other. In view of this, I recommend a similar study to be conducted in a community where a different adaptation response, such as groynes, has

been used and compare the findings. That approach could contradict the findings from this study and improve our understanding of which adaptation responses can assist policy decision making on a range of appropriate adaptation strategies for future resettlement plans. Additionally, a quantitative study should be conducted to analyze the economic cost of relocation per household to enable policymakers to understand the cost of relocation in order to make informed decisions on which adaptation response is feasible. Moreover, policymakers would better understand how the economic cost of relocation may not result in passing a political tipping point where villages' relocation would not be executed by government.

Lastly, subsequent examination of the three communities of Keta relocation process could provide significant input for the development of a national relocation framework in Ghana for future communities threatened by slow-onset environmental events.

Implications

Positive Social Change

The goal of this research as I explained in Chapter 1 was to help fill the knowledge gap on the attendant complexities of relocation as an adaptation response to slow-onset climate-induced environmental change. I also aimed to suggest how extent the experiences of relocated households could contribute to policy development and governmental response in protecting future at risk communities. This knowledge could lead to the prevention of human rights abuse in the context of social, economic, and cultural concerns associated with relocation, thereby highlighting social justice as a primary consideration by government in the allocation of benefits to resettled households

in the future. This knowledge could also lead to the establishment of measures by the central government aimed at mitigating the negative experiences that characterized current and future households' relocation process. The lack of understanding of relocation as an adaptation response to slow-onset climate-induced environmental events coupled with passing a tipping point could result in uncontrollable environmental catastrophes resulting in the disappearance of some villages and their cultures in the Keta area of the eastern coast of Ghana. This research thus represents several steps toward the enactment of more positive and informed policy positions in developing a national relocation framework for future resettlements in Ghana.

Methodological and Theoretical Implications

The findings that no clear justice and fairness in the allocation of resources and negative effects characterized Keta households' relocation process constitutes an important contribution to the development of components in an efficacious relocation process. The study's conclusions have implications for how researchers may apply the theoretical framework of distributive social justice in evaluating the results of other efforts toward relocation due to slow-onset environmental events. Almost all the existing theoretical literature on relocation as an adaptation response to slow-onset events focuses on the effects relocation has on the victims of climate change and the organization responsible for relocating them. This study's unique contribution to research is its focus on the victims of the government's relocation policies, - in this case the relocated household members of Keta who are important to the success of the relocation process.

Creswell (2013) asserted that a qualitative phenomenological study depends on a single phenomenon to be explored. To this end, in order to address the issue of a slow-

onset climate-induced environmental event passing a tipping point, a different research design should be used to study the same phenomenon to increase the knowledge and understanding of relocation as an adaptation response to slow-onset climate-induced environmental events. This design could be a quantitative or mixed-methods design employing inductive and/or deductive reasoning.

Recommendation for Practice

The Keta area is currently experiencing climate change. Although 573 households have been relocated between 2003 and 2015, the communities of Horvi, Puveme, Havedzi, and some parts of Keta are seriously threatened by erosion and flooding and require immediate relocation (NADMO, 2016). A recommendation of this study is that policymakers should choose one community for relocation. The knowledge gained through the relocation of the three communities of Adzido, Kedzi, and Vodza can serve as a bench-mark for a successful relocation process. Knowledge gained will facilitate any relocation process to be less demanding and well planned.

To ensure that relocation process is properly executed, the current support a strategy in which the central government establishes an organization responsible for relocation of communities because of climate-induced events. Although climate change is not yet seriously impacting the rest of the country, the eastern coast of Ghana is feeling its devastating effects. Despite the lack of funds for relocation, I recommend the remaining communities under threat be relocated in order to protect lives, property, and the culture of the people. Knowledge gained from relocation of other communities can increase our understanding of the complexities associated with relocation as an adaptation response due to slow-onset climate-induced environmental events. Relocation

in the eastern coast of Ghana can be used as baseline for what will impact Ghana in the future.

The proposal to relocate one additional community in the Keta area could benefit and test the findings of this study. First, the approach to distributing resettlement benefits should be just and fair thus reducing inequality in the allocation of resources. Second, pragmatic measures should be taken by government to ensure that the negative situations associated with relocation are mitigated. Third, the governmental approach to relocation should be structured in a way that does not subject the victims to undue circumstances culminating in the abuse of government officials due to failed promises. Lastly, policymakers can use the three communities and the next community's relocation experience to develop a national relocation framework for Ghana, given that many communities are experiencing climate change.

Conclusion

The findings of this qualitative study show that relocation can be a successful adaptation response to slow-onset climate-induced environmental change in the eastern coast of Ghana. Relocation can, however, result in lack of justice and fairness in the allocation of benefits and negative experiences of victims. The findings led to the proposal of a pragmatic governmental approach to developing a national relocation framework that ensures a successful resettlement process with key emphasis on appropriate distribution of benefits and burdens of social life as well as mitigating negative experiences of victims. Though relocation of three communities has been completed, the additional relocation of other communities identified by the central government must depend strongly on addressing the findings and recommendations for

social justice in relocation, adaptation, and disaster recovery processes in order to not

repeat the extremely negative experiences of the three Keta communities.

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Appendix A: Letter Requesting Permission to Conduct Study

Date:

Request to conduct a research study on the relocation of Keta residents in Ghana as

a result of climate-induced environmental change

Dear _____:

I am writing to inform you and your community about my intention to conduct a

scholarly study on the above stated topic. I am a PhD candidate in the Public Policy and

Administration program of Walden University and have successfully completed all of my

coursework. This study constitutes the final part of my academic requirements to be

awarded the doctor of philosophy degree.

The purpose of this study is to gain an in-depth understanding of the lived experiences of

relocated Keta households threatened by rising sea levels, and to suggest ways forward

for policy development and governmental response in the future.

Research findings could be important for the future of Ghana by addressing any needs of

these resettled households and to construct enhanced resettlement plans for coastal

communities threatened by rising sea levels in the future.

By this letter, I wish to humbly and formally inform your royal high office and ask for permission to conduct interviews in your community. I want to take this opportunity to assure you that the findings of this study will not be used for any purpose other than its intended purpose. Your office will be provided with a brief summary of the findings of this study after it is completed.

Thank you very much, in anticipation of your favorable response,

Abdul-Moomin Ansong Salifu

Telephone # ████████████████████████████

Appendix B: Approval Letter of the Assemblyman of Adzido/Vodza

OFFICE OF THE ASSEMBLY MEMBER

VODZA – ADZIDO ELECTORAL AREA
P. O. Box 195
Vodza – Keta
Mobile: 0242649276/0209162492

Your *Ref*: .... Our *Ref*: .... Date 20/04/2016

I, Christopher Mensah Assemblymember of the above electoral Area and the power of Torgbui Kuluku or III, hereby authorised the bearer of this note by name Mr. Abdul-Moomin Adsong Salifu, A student PHD student of public policy and Administration in Walden university, Minnesota, United states as the introductory letter stated, freely conduct a research on reclaimed lans, new apartments (Due to the Keta Sea Defence Project) and livelihoods in this electoral area.

I beg of you to supply with him the necessary information to enable him have a successful research at the end.

Thank you.

Yours faithfully

Hon. Christopher Mensah

Received 28/04/2016

Appendix C: Interview Protocol

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

Position of interviewee:

(Brief description of project)

Research Questions (in bold) *and* Numbered Interview Question Probes

What are the perceptions of adult family members of their experiences of relocation and of the situations that affected their resettlement?

1. What is your experience with relocation?

2. How will you describe your mental image of your relocation experiences?

3. What feelings come to mind/do you have about relocation?

4. What meaning does relocation have in your mind?

5. Tell me about what situations affected your relocation?

6. How did these situations affect your relocation?

7. How could you have avoided those situations affecting your relocation?

In what ways, if any, have family households experienced complexities in their resettlement?

1. What difficulties did you face during the relocation process?

2. How will you describe these difficulties?

3. How did these difficulties affect your life and or your relocation?

4. How could these difficulties be avoided during your relocation process?

5. What benefits did you derive from the relocation process?

6. How will you describe these benefits?

7. Why do you consider them as benefits?

8. How did these benefits affect your life and or your relocation?

9. How can these benefits be enhanced in the future?

In what ways, if any, has the resettlement program affected family households' human rights?

1. What factors affected you personally during the relocation process?

2. How will you describe how relocation affected your culture and family ties?

3. How has relocation affected your social inclusion and or citizenship?

4. How does relocation affect your social position?

5. How will you describe your accommodation now compared with where you lived in your previous community?

6. What concerns do you have about your present accommodation?

7. Do you feel you were treated fairly during the relocation process?

8. How will you describe your ability to do whatever you want (freedom) in your former community compared with your present community?

9. What positive factors can you recall about your relocation process?

10. Why do you consider them as positive factors?

11. What benefits has relocation had on your culture and family ties?

12. How did relocation your social inclusion and citizenship?

In what ways, if any, has resettlement affected family households' livelihoods?

1. Please describe what economic activity/income generating activity (ies) you engage in to earn a living?

2. How do you feel about what you do now to earn a living?

3. What is the difference between what you do now compared with what you used to do in your previous community?

4. Describe what differences your present livelihood activity (ies) make in your life?

5. How do you think relocation has changed what you do to earn a living?

6. Were there alternative choices to be made, and why, if there were, did you choose this one?

7. How will you describe your satisfaction with what you chose?

What are the perceptions of relocated adult family members of the challenges government faced during the resettlement process?

1. Could you please describe some of the challenges you think the central government faced during Keta's relocation?

2. Why were these considered challenges?

3. How did these challenges affect you?

4. How do you think these challenges affected government?

5. Do you think government could have avoided these challenges?

Appendix D: Respondent Validation Form

Date, 2016

Dear………………………………………………..

I want to thank you very much for the insightful and educative interview you granted me. I have attached here a draft transcript of your interview. Please read through it for accuracy and to assure me that your responses were reported correctly. Kindly feel free to contact me at ███████████████████████ for any questions or concerns you may have and wish to discuss with me.

Sincerely,

Abdul-Moomin Ansong Salifu

Appendix E: Initial Master Code List

Description	Code
Background (general information about relocation context)	BAC
Problem (how do people understand Keta's relocation process)	PRO
Perspective (what are people's lived experiences of relocation and any situation that affects relocation)	PER
Justice (how do people perceive the fairness of the way they were treated during relocation)	JUS
Challenges (what are people's perceptions of the bottlenecks of relocation)	CHA
Relationship (connection with socio-cultural ties)	REL
Livelihood (sources of meeting daily needs)	LIV