




# Climate-Induced Relocation and Social Change in Keta, Ghana

**Abdul-Moomin A. Salifu**, PhD

*Centre for Sustainable Communities and Climate Change, Kumasi, Ghana*

 <https://orcid.org/0000-0002-6538-8494>

**Contact:** [salmoomin@yahoo.com](mailto:salmoomin@yahoo.com)

## Abstract

In this article, I analyze the resettlement of three communities in the Keta municipality of Ghana as a result of rising sea levels that threatened life and property. Although a few studies have documented the effects of relocation because of slow-onset climate-induced environmental change, little is known about how such resettlements have contributed to positive social change in the affected communities. I used critical theory to determine whether Keta's relocation process contributed to positive social change. Transcriptions of interviews with a purposeful sample of 35 household members were coded and categorized into themes for essence description. Improved educational infrastructure for personal development, improved housing facilities, saved lives and protected culture, and improved healthcare facilities and general well-being were among the positive outcomes. Hence, through this study, I provide evidence to consider the need to prioritize the positive social change such resettlements will make in the lives of the affected populations in climate-induced resettlement and adaptation in Ghana and other parts of the world.

**Keywords:** *climate change, relocation, resettlement, social change, sea level rise, improved livelihoods*

**Date Submitted:** January 16, 2021 | **Date Published:** July 30, 2021

## Recommended Citation

Salifu, A.–M. A. (2021). Climate-induced relocation and social change in Keta, Ghana. *Journal of Social Change*, 13, 58–66.  
<https://doi.org/10.5590/JOSC.2021.13.2.05>

## Climate-Induced Relocation and Social Change in Keta, Ghana

The world is experiencing intense changes in climate, with subsequent changes in the environment (Warner, 2010). Several studies have documented the serious risks that climate change, especially rising sea levels, poses to the sustainability of coastal communities across the globe (Appeaning Addo & Adeyemi, 2013; Barnett & Campbell, 2010). According to the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report (Pachauri et al., 2014), recent climate change stressors, including warming of the atmosphere and oceans, melting ice, and rising sea levels, have reached unparalleled levels in the past years and could continue for decades.

Rising sea levels will affect low-lying coastal areas and will continue to rise throughout the 21st century and beyond with formerly rare events becoming common by 2100 (Pachauri et al., 2014). Coastal communities are vulnerable to extreme events, such as waves and storm surges, reduction in arable land, flooding and erosion,

and infrastructural damage (Nurse et al., 2014). Accelerated sea-level rise is one of the most significant challenges most coastal nations will face, especially in developing countries where there is lack of geospatial data (Apeaning Addo, 2013). A growing number of studies have indicated how the impact of climate change will influence where people live (Bettini, 2017; Warner et al., 2009). Indeed, human migration/resettlement is viewed as an adaptation response to the impact of climate change (Black et al., 2011).

## **Background**

The IPCC (Pachauri et al., 2014) stated that one of the greatest single impacts of climate change could be on human migration. Evidence suggests that, as stressors increase, there will be a corresponding increase in migration (Bettini, 2017). Climate change-related migration, therefore, has become a major concern for policy makers.

Migration affects economic well-being from changes in the environment. Slow-onset processes, such as sea-level rise, changes in rainfall patterns, and droughts, contribute to stress on livelihoods and access to food and water, and thus play an important role in households' decisions to migrate for better living conditions (International Organization for Migration, 2020). In 2003, the government of Ghana resettled three communities: Vodza, Adzido, and Kedzi; these communities were resettled after severe tidal waves had inflicted havoc, submerging buildings and causing serious damage to properties (Danquah et al., 2014). Since then, many researchers have contended that resettlement should be a strategic and sustainable adaptation response to climate change (Barnett & O'Neill, 2012; Mayer, 2014; McCleman & Smit, 2006).

For decades, erosion and flooding have been phenomena in the Keta area. Apeaning Addo et al. (2011) described coastal erosion, flooding, and shoreline retreat as serious problems in Ghana's coastal areas. For this reason, the government of Ghana initiated the resettlement of the three communities that were severely affected in 2003. Positive outcomes were emphasized by the government, including saving lives and property; preserving the local culture; improving living conditions; access to markets, hospitals, schools, and banks; and better roads (Ministry of Works and Housing, 2001). Yet most studies on resettlement have focused on the negative effects of resettlement and failed to address the positive social changes of resettlement. Positive social change is the deliberate process of promoting the worth, dignity, and development of individuals, communities, and institutions and results in the improvement of human and social conditions (Walden University, 2019). Therefore, viewing the resettlement project from this lens was the basis for this study.

## **Purpose of the Study**

The purpose of this study was to explore how the Ghanaian governmental policy of relocating three communities in the Keta municipality contributed to positive social change in the affected communities. Three research questions were asked:

1. What are the perceptions of household members about the benefits of resettlement?
2. What are the perceptions of household members about their general living conditions after resettlement?
3. How do household members assess social and infrastructural amenities in their newly resettled communities?

## **Critical Theory**

Critical theory has its origin in the Marxist tradition known as the Frankfurt School. It informs a broader range of social practices and has been the focus of dialogue among scholars in management, globalization, policy, environment, and sustainability (Jun, 2006). The dialectic aspect of the theory involves an

interdisciplinary approach through communicative action to understand the dynamics of the social world (Jun, 2006). The theory seeks human “emancipation, liberation, influence, and works to create a world which satisfies the needs and powers of human beings” (Horkheimer, 1992, p.246). Critical theorists advocate for the merger of philosophy and social science to best explore what is wrong with current social reality, identify the actors to change it, and provide both clear norms for criticism and achievable practical goals for social transformation (Bohman, 1996). Keta’s resettlement process was a public policy and a real-life social issue that infringes upon the rights of people to live safely and have access to basic livelihood facilities.

As the community members were caught in a position in which they could barely help themselves, they needed government’s intervention to transform their situation (Carr, 2005). Additionally, the resettlement process symbolizes Habermas’s (1984) approach of critical theory: Through dialogue, the people learned, accepted, and understood the possible consequences of not moving away from the devastating tidal waves. The policy makers’ vision was well communicated and shared by the communities before resettlement was finally executed. This approach further established the appropriateness of using critical theory for this study as the rationale because resettlement is encapsulated in the theory.

## Methodology

### Design and Sample

I used an explorative-descriptive qualitative design for this study. Grove et al. (2013) argued that an explorative description is appropriate when there is the need to seek the opinions of an affected group of people about a problem or an intervention. The choice of this design objectifies the aim of critical theory (Carr, 2005). In such an emotionally sensitive study of households affected by erosion and flooding, Tillman (2002) posited that qualitative methods can promote dialogue and bring out experiences, shared knowledge, and the life experiences of participants.

I explained the nature of the study to chiefs of the three communities, and they expressed their support for the study. All interviewees were adults at the time of relocation and had experienced the phenomenon. The age range of participants was 30–68 years. All participants signed a written informed consent before granting interviews.

### Measures

I gathered data through face-to-face interviews with the 35 respondents using purposeful sampling. I also observed issues of interest in the physical settings and participants’ activities in the three new settlements of Vodza, Adzido, and Kedzi to gain insight into some of the new improvements in the communities. I used open-ended questions, and each interview lasted approximately 60 minutes.

### Data Analysis Strategy

Field data of interviews and audio recordings were transcribed verbatim and reviewed for accuracy. Raw data were converted into codes and codes were organized into themes (Creswell, 2013). The themes generated were a result of coding, classification, and analytical reflection. The data analysis process ran concurrently with the field data collection. Data were analyzed using qualitative content analysis. This procedure consisted of identifying participants’ significant statements, reducing them to words and phrases, and generating meaning units while maintaining their core meaning for essence description (Moustakas, 1994; Saldaña, 2009). Codes describing similar aspects of the content were identified and formed into themes. Data saturation was reached after interviewing the final participant. Of the 35 interviewees, 29 participated in a check for data validation, and the necessary corrections were incorporated into the final data analysis. Data triangulation and saturation

were closely linked. The observation conducted in the three communities complemented the data generated from interviews.

Trustworthiness of this study was achieved through data triangulation and by relying on participants for their interpretations of the meanings of the study objectives (Denzin & Lincoln, 2011). Each participant reviewed the interview transcript to eliminate any possible errors. I kept an audit trail of the research activities and processes, emergent themes, and any other influences on data collection and analysis (Morrow, 2005). Graneheim and Lundman (2004) suggested transferability is judged by readers who can determine if findings are applicable to other participants and situations.

## Results

Four themes emerged from the data analysis: (a) improved educational infrastructure for personal development, (b) improved household housing facilities, (c) saved lives and protected culture, and (d) improved healthcare facilities and general healthcare.

### **Improved Educational Infrastructure for Personal Development**

Household members in the three communities recognized the significant role education plays in their personal development and that a strong infrastructure is key to achieving quality education. One respondent stated, “We have very nice classrooms now. Our children will no longer run home when it is threatening to rain.” Another interviewee mentioned, “With these new structures, our children are excited to attend school and can become teachers and medical doctors one day.”

### **Improved Housing Facilities for Households**

Relocation resulted in improved housing facilities. Specifically, new houses were built of concrete by the government compared to the mud and thatch houses in which residents lived in the previous communities. One participant stated, “Where I am living now is far [more] durable and nicer than my atakwame (local mud and thatch houses) that me and my family used to live in.” All respondents stated that the resettlement project improved their housing conditions. Most have water closet toilet facilities compared with their old structures where open defecation was the norm.

### **Saved Lives and Protected the Community’s Culture**

The rationale for the government’s intervention was to save lives and property as well as ensure the well-being of the affected communities. Findings corroborated that the government’s action improved their sense of safety. One respondent stated, “We used to live and sleep with fear because we did not know when the next tidal water would hit our homes and probably kill some people.”

Protecting lives indirectly protects the culture of the people as well. According to the respondents, the loss of lives was inextricably linked to the extinction of their cultural heritage. As one respondent stated, “Our culture is very important to us. Hence, once we didn’t all die, our culture remains with us.” Preserving one’s culture is of paramount importance in the interest of the group and for the sake of national heritage and cohesion. Being saved from the dangers of the sea ensures a sense of safety. As one other respondent mentioned, “We now have peace of mind. Since we came here, we never worry about water destroying our properties, homes, and killing some people.” These testimonies affirm the positive aspects of the policy intervention.

## Improved Healthcare Facilities and General Healthcare

Healthcare is the cornerstone of any healthy and livable community. Community members recounted that primary healthcare was never accessible to them before resettlement. Respondents had to walk to Keta Township to access primary healthcare. One respondent said, “We used to go to Keta any time a family member was sick in order to get treatment, but thank God, today we have a clinic here.” The provision of healthcare facilities was thus an important component to complement the life-saving goal. Respondents indicated that they now have clean drinking water, which can improve residents’ general health by preventing them from contracting water-borne diseases.

## Discussion

The results of this study demonstrate that the resettlement process, the first of its kind in Ghana, brought positive social changes to the affected communities. For instance, the role of education as an agent of social change cannot be overemphasized, as it plays a key role in personal development. Quality education, however, cannot be attained without the requisite infrastructure. Thus, the construction of concrete-block schools in the resettled communities was a step forward to improving the quality of education and motivating children to go to school, thus acquiring knowledge for personal development. This achievement was previously impossible because of the dilapidated structures that were at the mercy of rising sea waters, which frightened parents and kept children from attending school. Merrill and Eldrege (1952) asserted that social change means many people are engaged in activities that are different from those they engaged in before, as evident in the increased number of children now attending school because of improved infrastructure.

Improved educational infrastructure is the bedrock to eliminating poverty. Education promotes an improved quality of life and social equity; hence, it may not only be an outcome of social change but the reason for social change (Brown, 2017). In most predominant fishing communities in Ghana, parents use their children for labor in their fishing activities, which affects their school attendance (Ananga, 2013). The situation is compounded by poor educational infrastructures in these communities, which makes education unattractive to dwellers. However, improved educational infrastructure is a significant step toward improving their quality of life. As Brown (2017) asserted, education creates awareness for the individual to differentiate between social injustices and disparities, which may create a desire for social change that never existed before the education initiative.

The findings further corroborate the assertion by UNESCO (2015) that “there is no more powerful transformative force than education in promoting human rights and dignity, eradicating poverty, promoting sustainability to build a better future for all, founded on equal rights and social justice” (p. 4). Significantly, this approach meets the sustainable development goal, which emphasizes inclusive and equitable quality education to promote lifelong learning opportunities for all (International Council for Local Environmental Initiatives, 2015).

The improvement of housing facilities is important to the relocated communities. Before the resettlement process, one of the greatest concerns of residents was that their dilapidated houses would be washed away any time a devastating tidal wave struck. Almost all respondents indicated their satisfaction with the improved housing facilities they presently occupy. The current housing structures are located 1–2 kilometers away from the shores, thus protecting them from tidal waves. They are built more durably as well. The fishermen and fishmongers who were living in deplorable and dangerous structures exposed to rising sea waters are now living in improved accommodations. The result is reduced poverty, disease, and mortality. This approach meets the International Council for Local Environmental Initiative’s (2015) sustainable development Goal 11, which emphasizes making communities and human settlement inclusive, safe, resilient, and sustainable. This is paramount because shelter and settlement are intertwined and offer opportunity for a postdisaster recovery

process that provides protection, security, and dignity for the affected communities, which reestablishes economic well-being and guaranteed livelihoods (European Commission, 2017).

The permanent resettlement of these communities prevented deaths and injuries from the strong waves that were not under human control, as well as the ineffective structural mitigation measures and the lack of forewarning devices for early evacuation. The relocation process was described as a “life-saver” initiative by members of the three resettled communities. Until the government intervened to curtail the situation, the lives of some relatives had been lost to strong tidal waves. Apart from saving lives and property, respondents also said their cultural heritage has been preserved. Culture provides both social and economic benefits. It also promotes education and health, tolerance, and opportunities for people to come together, and culture increases quality of life and overall well-being of the individual and communities. It was not surprising, therefore, that almost all respondents stated they now enjoy more peace of mind than before. Community members can now focus on other socioeconomic activities that can improve their standards of living, which are indicators of positive social change. The resettlement process also saved the government millions of Ghana cedis spent annually on disaster relief items in support of these communities any time a strong tidal wave would strike.

People’s living standards cannot be considered improved without a high-quality healthcare system in place. Respondents indicated that access to healthcare was a problem prior to the resettlement process. Community members said they were now satisfied with their access to health facilities within walking distance. The International Council for Local Environmental Initiative’s Goal 3 emphasizes the need to ensure healthy lives and promote well-being for all. Therefore, when communities are being resettled, the residents’ well-being and increased living standards must be addressed.

## Conclusions

The purpose of most resettlements is to protect lives and property, restore or maintain the resettled community members’ livelihoods and socioeconomic conditions, or improve their present living standards. Yet most resettlements end up creating poverty, termed process-related poverty or the new poor (Bala, 2008). Resettlement resulting from slow-onset climate-induced environmental change is a life-saving process. Nicholson (2014) 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. It is imperative to note, therefore, that fortunately, the 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—did not occur in Keta (Huntington et al., 2012).

The most significant part of the resettlement was the improved infrastructure in education, health, and housing. Resettlement saved lives and brought about peace of mind to community members, thus promoting their worth, dignity, and personal development. All these associated positive social change interventions help in building resilience and adaptability to their new environment.

## References

- Ananga, E. D. (2013). Child migration and dropping out of basic school in Ghana: The case of children in a fishing community. *Creative Education*, 4(6), 405–410. <https://doi.org/10.4236/ce.2013.46057>
- Appeaning Addo, K. (2013). Assessing coastal vulnerability index to climate change: The case of Accra–Ghana. *Journal of Coastal Research*, 65, 1892–1897. <https://doi.org/10.2112/SI65-320.1>
- Appeaning Addo, K., & Adeyemi, M. (2013). Assessing the impact of sea-level rise on a vulnerable coastal community in Accra, Ghana. *Jàmhá: Journal of Disaster Risk Studies*, 5(1), 1–8. <https://doi.org/10.4102/jamba.v5i1.60>
- Appeaning Addo, K., Jayson-Quashigah, P. N., & Kufogbe, K. S. (2011). Quantitative analysis of shoreline change using medium resolution satellite imagery in Keta, Ghana. *Marine Science*, 1(1), 1–9. <https://doi.org/10.5923/j.ms.20110101.01>
- Bala, M. (2008). Theory of social justice and involuntary resettlement. *Indian Journal of Human Development*, 2(2), 1–10. <https://doi.org/10.2139/ssrn.939689>
- Barnett, J., & Campbell J. (2010). *Climate change and small island states: Power, knowledge and the South Pacific*. Earthscan.
- Barnett, J., & O'Neill, S. J. (2012). Islands, resettlement and adaptation. *Nature Climate Change*, 2, 8–10.
- Bettini, G. (2017). Where next? Climate change, migration, and the (bio)politics of adaptation. *Global Policy*, 8(S1), 33. <https://doi.org/10.1111/1758-5899.12404>
- Black, R., Bennett, S. R. G., Thomas, S. M., & Beddington, J. R. (2011). Climate change: Migration as adaptation. *Nature*, 478(7370), 447–449.
- Bohman, J. (1996). Critical theory and democracy. In D. M. Rasmussen (Ed.). *The handbook of critical theory* (pp. 190–209). Blackwell.
- Brown, M. S., & Baltés, B. (2017). The relationship between social change involvement and education. *Journal of Social Change*, 9(1), 131–140. <https://doi.org/10.5590/JOSC.2017.09.1.13>
- Carr, A. N. (2005). The challenge of critical theory and behavior: An overview. *International Journal of Organization Theory and Behavior*, 8(4), 466–494. <https://doi.org/10.1108/IJOTB-08-04-2005-B002>
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd ed.). Sage.
- Danquah, J. A., Attippoe, J. A., & Ankrah, J. S. (2014). Assessment of residential satisfaction in the resettlement towns of the Keta basin in Ghana. *International Journal Civil Engineering, Construction and Estate Management*, 2(3), 26–45. <https://bit.ly/3f6853p>
- Denzin, N. K., & Lincoln, Y. S. (2011). Introduction: The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.). *The Sage handbook of qualitative research* (4th ed., pp. 1–19). Sage.
- European Commission (2017). *Humanitarian shelter and settlements guidelines*. [https://ec.europa.eu/echo/files/policies/sectoral/shelter\\_and\\_settlement\\_guidelines.pdf](https://ec.europa.eu/echo/files/policies/sectoral/shelter_and_settlement_guidelines.pdf)
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105–112. <https://doi.org/10.1016/j.nedt.2003.10.001>
- Grove, S. K., Burns, N., & Gray, J. R. (2012). *The practice of nursing research. Appraisal, synthesis, and generation of evidence* (7th ed.). Elsevier Saunders.
- Habermas, J. (1984). *The Theory of Communicative Action, Volumes 1 and 2*. Boston: Beacon Press.

- Horkheimer, M. (1992). *Critical Theory: Selected Essays*, translated by Matthew J. O'Connell, et al., New York: Seabury Press; reprinted Continuum: New York
- Huntington, H. P., Goodstein, E., & Euskirchen, E. (2012). Towards a tipping point in responding to change: Rising costs, fewer options for Arctic and global societies. *Ambio*, 41, 66–74. <https://doi.org/10.1007/s13280-011-0226-5>
- International Council for Local Environmental Initiatives. (2015). *From MDGs to SDGs: What are the sustainable development goals?* (ICLEI briefing sheet). *Urban Issues*, 1. <https://bit.ly/3leej5h>
- International Organization for Migration (2020). *World Migration Report*. [https://publications.iom.int/system/files/pdf/wmr\\_2020.pdf](https://publications.iom.int/system/files/pdf/wmr_2020.pdf)
- Jun, J. S. (2006). *The social construction of public administration: Interpretive and critical perspective*. State University of New York Press.
- Mayer, B. (2014). “Environmental migration” as advocacy: Is it going to work? *Social Science Electronic Publication*, 29, 27–41.
- Merrill, F. E., & Eldredge, H. W. (1952). *Culture & society: An introduction to sociology*. Prentice-Hall.
- McLeman, R., & Smit, B. (2006). Migration as an adaptation to climate change. *Climatic Change*, 76, 31–53.
- Ministry of Works and Housing. (2001). *Keta Sea defense project relocation of affected communities: Final task force report, Accra*. [Unpublished manuscript].
- Morrow, S. L. (2005). Quality and trustworthiness in qualitative research in counseling psychology. *Journal of Counseling Psychology*, 52(2), 250–260. <https://doi.org/10.1037/0022-0167.52.2.250>
- Moustakas, C. (1994). *Phenomenological research methods*. Sage.
- Nicholson, C. T. M. (2014). Climate change and the politics of causal reasoning: The case of climate change and migration. *The Geographical Journal*, 180(2), 151–160. <https://doi.org/10.1111/geoj.12062>
- Nurse, L. A., McLean, R. F., Agard, J., Briguglio, L. P., Duvat-Magnan, V., Pelesikoti, N., Tompkins, E., & Webb, A. (2014). Small islands. In V. R. Barros, C. B. Field, D. J. Dokken, M. D. Mastrandrea, K. J. Mach, T. E. Bilir, M. Chatterjee, K. L. Ebi, Y. O. Estrada, R. C. Genova, B. Girma, E. S. Kissel, A. N. Levy, S. MacCracken, P. R. Mastrandrea, & L. L. White (Eds.), *Climate change impacts, adaptation, and vulnerability* (pp. 1613–1654). Cambridge University Press.
- Pachauri, R. K., Allen, M. R., Barros, V. R., Broome, J., Cramer, W., Christ, R., Church, J. A., Clarke, L., Dahe, Q., Dasgupta, P., Dubash, N. K., Edenhofer, O., Elgizouli, I., Field, C. B., Forster, P., Friedlingstein, P., Fuglestedt, J., Gomez-Echeverri, L., Hallegatte, .... & van Ypserle, J. P. (2014). Contribution of working groups I, II and III to the fifth assessment report of the intergovernmental panel on climate change. In R. Pachauri, & L. Meyer (Eds.). *Climate Change 2014: Synthesis Report*. Cambridge University Press.
- Saldaña, J. (2009). *The coding manual for qualitative researchers*. Sage.
- Setrodjie, I. (2015, January 23). Dozens displaced in Keta tidal waves disaster. *MyJoyOnline*.
- Tillman, L. C. (2002). Culturally sensitive researcher approaches: An African-American perspective. *Educational Researcher*, 31(9), 3–12. <https://doi.org/10.3102/0013189X031009003>
- UNESCO (2015). *Rethinking education: Towards a global common good?*
- Walden University (2019). *Mission*. <https://scholarworks.waldenu.edu/jsc/about.html>
- Warner, K. (2010). Global environmental change and migration: Governance challenges. *Global Environmental Change*, 20(3), 402–413.



Warner, K., Ehrhart, C., Adamo, S., de Sherbinin, A., & Onn, T. C. (2009). *In search of shelter: Mapping the effects of climate change on human migration and displacement*. [Policy paper]. 2009 Climate Negotiations. United Nations University, CARE, and CIESIN-Columbia University.



| JSC

The *Journal of Social Change*, sponsored by [Walden University](#), welcomes manuscripts focusing on interdisciplinary research in social change that improves the human condition and moves people, groups, organizations, cultures, and society toward a more positive future.