



Local Environment

The International Journal of Justice and Sustainability

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/cloe20

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To cite this article: Francis Anderson Adzei & Mawusi Adzo Alornu (2023) An examination of national climate policy integration at the local level of development in Ghana, *Local Environment*, 28:3, 322-330, DOI: [10.1080/13549839.2022.2136641](https://doi.org/10.1080/13549839.2022.2136641)

To link to this article: <https://doi.org/10.1080/13549839.2022.2136641>



Published online: 07 Nov 2022.



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RESEARCH ARTICLE



An examination of national climate policy integration at the local level of development in Ghana

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ABSTRACT

This paper assessed the extent to which local government authorities have mainstreamed climate change adaptation strategies in their development policies in selected districts in Ghana, using a qualitative case study design within the phenomenological epistemology. Forty-four respondents participated in this study from the decentralised departments of local authorities key informant interviews (KIIs) were used for data collection in the study areas. The study findings revealed that climate policy integration at the study districts was done as a compliance measure rather than a response to real needs of the districts. A gaping chasm therefore exists between stated and actual climate change-related goals. Lack of collaboration, weak coordination of sector plans and weak community and private sector engagement were identified as the causal factors of the gap between the rhetoric and reality of integrating climate change concerns into district development plans in the study areas. Further, competing local priorities on the district agenda, institutional capacity constraints and information and technological constraints were identified as major barriers for the local authorities in adaptation to climate change. It is concluded that although climate change and its related policies have been integrated into the various national development policies, climate policy integration remains a challenge at the district level.

ARTICLE HISTORY

Received 28 February 2022
Accepted 11 October 2022

KEYWORDS

Climate change policy; integration; sustainability; local level; Ghana

Introduction

The compound impacts of climate change have grown more visible across sectors and geographies, and their negative influence on human survival in general has been a source of considerable consternation among policy analysts around the world (Hidalgo, Nunn, and Beazley 2021; Oduro-Ofori, Isahaka, and Opoku-Antwi 2021). Africa, particularly sub-Saharan areas, have been flagged as susceptible in the future to the harsh effects of climate change, owing to the region's low adaptation potential and sensitivity to many of the expected changes (Aleksandrova 2020; Hidalgo, Nunn, and Beazley 2021). This growing appreciation of the threat of climate change has necessitated the mobilisation of heads of state and the international community around a plethora of climate-related initiatives (e.g. The United Nations Framework Convention on Climate Change (UNFCCC), Kyoto Protocol, Program for action on the green economy (PAGE), etc.) (Herman 2022; UNEP 2022).

Ghana has also made significance progress in its attempt to tackle climate change (Ahenkan, Chutab, and Boon 2021; Ministry of Environment 2013). This has been reflected in its efforts

throughout the years to keep true to its commitments to international environmental protocols and conventions. With donor support and international assistance, significant efforts have been made to reduce vulnerability and build adaptive capacity, including the establishment of the National Climate Change Committee (NCCC) and the National Climate Change Policy Framework (NCCPF) (Antwi-Agyei et al. 2018). The aim of the NCCPF is to ensure coherence and synergies across all sectors and the eventual integration of adaptation to climate change into the main planning processes at national, regional and district levels (EPA 2018). Widespread consensus in the extant literature (e.g. Atanga, Inkoom, and Derbile 2017; Essegbey and Maccarthy 2020) also exists to reinforce the NCCAs position that increasing the collective capacities of communities to adapt relates to the need to improve and strengthen human capital through education, outreach and extension services.

There is further a growing advocacy for the need to integrate these climate change dimensions and related initiatives into all areas of national and local policies, plans, programmes, projects and budgets (Runhaar et al. 2018; UNFCCC 2015). Climate policy integration or mainstreaming has been proven to ensure development activities contribute to people's adaptive capacity and do not inadvertently increase their vulnerability to climate change (Dany and Lebel 2020; Hernandez and Bolwig 2021; IPCC 2018). For the purpose of this study, we adopt the UNDP-UNEP (2015) concept of mainstreaming in climate change adaptation which is described as the iterative process of integrating climate change adaptation into development policy making, planning, budgeting, implementation and monitoring processes at national, sector and sub-national levels. In order to do this, policymakers and planners must essentially incorporate climate change adaptation techniques into existing sectoral policies. Literature however argues that the top-down approach to formulating climate adaptation policies, i.e. global to national and sub-national levels, obscures its implementation in administrative and institutional settings, making it difficult to implement (di Gregorio et al. 2017; Fuhr, Hickmann, and Kern 2018; Hickmann 2017). From the foregoing, it is evident that there a disconnect between the rhetoric and the reality of integrating globally decided climate change concerns into local development plans. This adds impetus to a study of this nature to critically assess local governments in Ghana and the extent to which they integrate CCA and DRR initiatives into their development planning. This study seeks to understand the level of synchronisation between local-level policy developments and inter/national-level frameworks and agreements in relation to climate change adaptation. Specifically, the research seeks to assess the extent to which local government authorities have included climate change adaptation strategies in their development policies in the study districts.

Materials and methods

Study design

This study adopts a qualitative case study approach with an interpretivist research paradigm to help facilitate an exploratory approach to a context-dependent research phenomenon and to provide the researcher with a wide range and well-coordinated frame of views contingent on the field experiences gathered to inform the sense made from the meanings the participants have about climate change policy integration at the local level. The case studies adopted were the Keta and Kpando municipalities and Adaklu and Ho-West districts, respectively. These districts offer the appropriate context for the study because they have been under severe inundation caused largely by the drivers of climate change, driven mainly by erratic rainfall patterns and the rise in sea levels leading to coastal flooding and erosion. For this, effects of climate change have remained critical factors that households, communities and institutions.

Study area and sample

The target population comprised of all key staff of the Keta Municipal Assembly (KeMA), Kpando Municipal Assembly, Ho West District Assembly and the Adaklu District Assembly (ADA). The

population also extends to include all staff of all decentralised departments including the District departments of Ministry of Food and Agriculture (MOFA), National Disaster Management Organisation (NADMO), Physical Planning and the Ghana Health Service. The choice of these departments became apposite for this study because the activities of all four departments affect and are in turn affected by climate change in diverse ways.

Each assembly had four (4) respondents: the coordinating director, planning officer, budget officer and finance officer. Furthermore, the researcher purposefully chose district administrators of Health, NADMO, Physical Planning and Agriculture from the study areas. In all, forty-four (44) respondents participated in this study.

Data management and analysis

The primary data gathered through the KIs were audio-recorded with an electronic tape device and then transcribed and categorised into themes to enable analysis and interpretation to be carried out. The interviews were conducted in the English language or Ewe but every data were translated into the English Language before coding. In line with best practice, the thematic categorisation of the data was done to reflect the aims of the research. Ethical procedures were strictly adhered in order to ensure that the interest of the interviewees was protected in accordance with the ethical clearance given by the University of Ghana's Ethics Committee for the Humanities. The purpose and objectives of the study as well as the potential risk or benefits inherent in the study were clearly explained to the respondents. Respondents were also given the opportunity to ask questions about the study at any stage of the interviews and discussions. Assurance of anonymity, confidentiality and informed consent was duly observed to provide some confidence in the researcher.

Results

This section presents the findings and results based on data collected in the field into four major categories. The first theme presents and discusses the degree of compliance with national CCA and DRR plans. The second subject discusses the most important adaptation strategies, while the third theme focuses on actors and their level of involvement in local development programmes. The fourth theme also focuses on the challenges of district-level climate policy integration.

Climate policy integration: compliance with plans of action for CCA and DRR

Participants at the KeMA and ADA indicated that formulating strategies and policies to reduce the impact of climate change goes beyond compliance to policies and regulations.

According to the planning officer of KeMA

... it is an ethical and a moral obligation to exercise a "duty of care" and contribute through robust strategies in ameliorating the problems that the respective districts encounter.

Findings of the study indicated that areas prioritised in the DMTDP of each of the study areas including agriculture (including both farming and fishing), health, livelihoods, land use, energy, fisheries management (in the case of the KeMA) and water are reflection of the priorities embedded in the National Climate Change Adaptation Strategy (NCCAS). Findings further revealed that formulating adaptation plans on "wholesale" vulnerability assessment creates divergence in plans and the perceived problems meant to be resolved. A Participant averred that:

the situation remains so because vulnerability assessment is an expensive venture. More so, many districts including the KeMA and ADA cannot boast of the personnel with the requisite knowhow to carry out vulnerability assessment.

Climate change adaptation strategies

Participants of the study were asked to describe climate change response programmes pursued by their respective districts and the second theme of the study was generated for their responses to this question with a subtheme on the role of politics in CCAS. The study finding indicated that both districts have engaged in a couple of initiatives meant to facilitate the adaptation of the districts to the stressors of climate change. Participants identified livelihood adaptation programmes, agriculture, health, land use, water and fisheries management as key areas on which strategies were formulated to facilitate proactive response to climate change impacts occurring in their districts.

Politics and climate change adaptation strategy formulation

In an interview with the outfit of the PCU, the Planning Officer of the KeMA detailed his views in a statement to reinforce the role of politics for adaptation to climate change when he remarked that:

For us in the PCU, the active involvement of the MCE in all climate change adaptation programmes we organize in the municipality is indicative of the fact that we have not been left alone. The call for support from the MCE towards climate change adaptation programmes is quite encouraging.

This is in addition to his attention to other pressing issues in the municipality.

Though I stand to be corrected, I carry the impression that through their representation in the planning process, many of the planned adaptation projects by the assembly in communities that were inundated by high tidal waves and disaster related hazards like flood could be rated as sustainable.

Other actors and their level of involvement in local development programmes

The third theme reflects the role of key decentralised government institutions in CPI which include, the National Disaster Management Organization (NADMO) office, the district/municipal Ministry of Food and Agriculture (MOFA) office, the district/municipal Forestry Commission Office, the district/municipal Health Service Directorate and Physical Planning Department (PPD). As at the time of carrying out this research, the study found that although they are duly registered with the assembly, they remain dormant. NGOs with operational focus on climate change are practically non-existent. This was confirmed in an interview with the Cooperative Officer (responsible for coordinating the activities of NGOs and related agencies in the municipality) of KeMA when he said that:

There are significant number of NGOs including those related to environment registered with the Assembly. However, those that are environmental in nature have remained dormant for some time now. This means that over the years we have not felt their presence or seen any major intervention they have carried out in furtherance of their mandate in the municipality. (C.O Interview, 2022)

An Agriculture Officer opined that,

In spite of the significant impact of climate change on various sectors in the municipality, this municipality cannot boast of NGOs specifically registered to fight the phenomenon of climate change. Several attempts by individuals and groups to form NGOs in the area of climate change could not suffice. (Interview with A.O, 2022)

The problem of coordination among local government actors

This subtheme from the previous theme presents the evidence that the bridge between the decentralised agencies and the assembly as a political unit in decisions concerning adaptation planning is virtually non-existent. This was confirmed in related statements from two separate interviews by participants from the offices. While the officer from the ADA NADMO office stated that:

Sometimes we are not represented at those workshops at all. We are left to deal with issues of disaster and so in many of the cases we only come in when there is disaster. Meanwhile the little I know suggest to me that many

of the disasters we experience in our municipality here are caused by the rising level of the sea water resulting into the flooding of low-lying and some farming areas. I will suggest that the assembly must learn to involve us in such decision-making processes to enable us know those areas in the municipality where our response capacity will be needed. (NADMO Officer interview, 2022)

Challenges of climate policy integration in the study districts

The qualitative data gathered from participants indicated that the pursuit of climate policy integration and the implementation of climate change adaptation strategies in the districts are fraught with challenges making the realisation of adaptation plans problematic. Participants identified the following as key challenges facing pursuit of climate policy integration: lack of scientific information about the levels vulnerability, institutional capacity constraint, competing local priorities, information and technological constraints.

Information and technological constraints

Interviews with participants revealed that the KeMA and the ADA lack reliable and useful information about the state of climate and its risk within the municipality. Although some of the participants maintain that some climate information is often provided, they often come in the form of seasonal forecasts. The Agriculture Officer from MOFA mentioned,

the absence of credible and relevant information on climate change is related to the lack of adequate art equipment poor state of existing ones. (Interview with A.O, 2022)

Data gathered also revealed that scientific information about the levels of vulnerability of ADA and KeMA to climate change is virtually non-existent. What was more enthralling was that, the Environmental Protection Agency (EPA) at the regional level had no vulnerability assessment information about the study areas. Participants indicated,

most often we depend on national assessments which in time could change depending on the level of the districts' exposure and sensitivity to the rapid changes in the climate. Given that these information of the vulnerability of the districts are not constant, it is difficult to rely on them for any effective adaptation decision making. (Interview with C.O, 2022)

Competing local priorities

It became evident that out of the many pressing needs and competing interest, adaptation represents only one area of priority for local government planning in the study areas.

The PCU officer indicated,

we have core traditional municipal services which are the waste management, education, health, and other municipal service provisions and these have overcrowded the planning agenda much to the detriment climate change. (Interview with PCU Officer, 2022)

This revealed a shift in focus from climate change action to these core traditional municipal services by the assembly. Also, it was found that the municipal assembly being the highest political authority within the district imposes huge responsibilities on them to become politically responsive by delivering on the scaled preferences of the people. For the political class within the district, responding to this means skewing much of the budgetary allocations to the provision of these services if they are to win electoral fortunes for their political masters in central government. It was thus not surprising when the Coordinating Director of the KeMA opined that:

Climate change is rarely a campaign message and so many at times discussions of the assembly tend to centre around the provision of municipal services most of which form the core of campaign promises ... the very things the people of the district can easily identify with ... I am therefore tempted to say that but for its impacts on

infrastructure and various economic activities within the municipality, climate change adaptation may receive little or no support at all. (Interview with C.D, 2022)

Compliance with national plan of action for DRR and CCA

The study showed that given the vulnerability of the districts, the assemblies have captured adaptation initiatives in their DMTPs to enable them respond to the changing climate in their districts. The choice of these initiatives was made keeping in view the sensitive sectors of the study areas. The initiatives range from livelihood adaptation, agriculture, to health. What is however limiting the full realisation of these initiatives have been the inadequacy of resources (both material and human).

A participant noted,

... besides, some departments like the Health directorates have not been given the space to perform their climate change roles perhaps because there is no direct link between health and climate change.

The findings also indicated that while many adaptation strategies are formulated locally and within the context of national adaptation plans of actions, funding sources for such strategies are however limited locally. The findings showed that delays often characterise funds provided by the central government.

Institutional capacity constraints

The study also identified institutional capacity constraints as one of the major challenges facing the districts in their efforts to adapt and integrate climate policies into their development plans. A participant opined that

The abilities of the districts is handicapped with regards to the managerial abilities, issues of competent human resources, access to financial and technological resources and even the institutional context in which climate adaptation occurs.

It was also revealed that the institutional architecture namely the sub-district structures of the assembly are not adequately represented in the planning of adaptation in the districts

Discussion

This study sets out to examine the extent to which national policies related to climate change are being mainstreamed at the local levels of development in the country. Specifically, the issues relating to vulnerability, adaptation and integration have been examined in the context of synchronisation between local-level policy developments and inter/national-level frameworks and agreements in relation to climate change adaptation.

Evidence abounds in the extant literature that, local governments perform several roles to adapt to climate change (e.g. Antwi-Agyei et al. 2018; Hidalgo, Nunn, and Beazley 2021). Studies (e.g. Sjöstedt and Povitkina 2017; Williams et al. 2019) establish that many of these roles are implied in the core functions and responsibilities dictated by legislative instruments creating them. The laws of Ghana provide the overarching framework of roles for local governments; the educator role, the capacity building role, the regulator role and the infrastructure provision role (Ministry of Environment 2013). It is thus instructive to note that education led by local government institutions is a sine qua non to enhancing the response capacities of communities. This particular role (the educator role) of the assemblies corroborates earlier studies (Russel, den Uyl, and de Vito 2018).

These are covered in Runhaar et al. (2018) climate policy framework which identified the extent to which climate adaptation mainstreaming is successful in the context of its drivers and barriers. The categories typically identified are political factors, which constitute governmental commitments or interests that align or conflict adaptation, organisational factors, which cover factors within an

organisation or cross-organisations may incentivise sector policies, cognitive factors; constituting level of awareness, resource availability, characteristics of the adaptation problem at issue, and timing. These findings also corroborate that of Ahenkan, Chutab, and Boon (2021) which found multifaceted challenges militating against CCA mainstreaming in the Pru District of Ghana, which included inadequate resources for CCA, inactive stakeholder and institutional collaboration, and lack of continuity of CCA programmes. Yeeles (2018) similarly identified financial constraints as one of the biggest challenges of the international community experiences in assisting CCA in developing countries. Studies aver that the prevailing political process provides a strong prerequisite to people's response to drought and that institutional capacity for adaptation cannot entirely be divorced from the political ambience of a locality (Dany and Lebel 2020; di Gregorio et al. 2019). Runhaar et al. (2018) also indicate that, lack of political will at the local levels is a major barrier to climate adaptation. da Cunha and Lioubimtseva (2021) and Kim et al. (2016) in their study, confirm that, the engagement of stakeholders contributes significantly to the development of Municipal Adaptation Plans (MAP) and that this engagement process is necessary to bring politicians and decision makers on board and to give them insight into projected impacts and potential adaptation actions. This study therefore argues that the existing disparity in the relationship among the local level actors provides a breeding ground for nurturing conflicts which might result into disagreement about adaptation initiative within the district. Additionally, this might restrain the utilisation of significant available knowledge necessary for reducing vulnerability to climate change effects.

The existing relationship also signifies a typical institutional weakness and this according to da Cunha and Lioubimtseva (2021) is mainly the result of the absence of effective coordination and a participatory decision making. On the basis of this, the study argues that all things being equal the current culture of alienating others from the decision-making process for adaptation can increase the vulnerability of the group in question. This position of the study confirms the argument of Nemaconde, van Niekerk, and Wentink (2017) that vulnerability is exacerbated by unequal access to decision making. To reaffirm this position, Williams et al. (2019) posited that participation of essential stakeholders can reduce uncertainties. Similarly, a study by Kim et al. (2016) confirms that participation in dialogue among affected stakeholders has been identified as a major step in the Adaptation Policy Framework. Reaffirming the position of Angst et al. (2018), this study posits that how decisions are made and who has access to the decision-making process matters in identifying and implementing adaptation options and that being an institutional requirement, participatory decision making contributes to increasing the adaptive capacity of vulnerable groups and communities.

Also, it is worthy to note that the districts' lack of reliable and useful information about the state of climate and its risk within the municipality while not only affecting farming by those who rely on rain-fed agriculture, also holds implications for those using irrigation systems since the amount of rainfall determines the extent to which the groundwater table can be recharged to enable them to get the quantity of water required for irrigation. The study thus argues that the lack of appropriate climate information will not only be critical for food security and the long-term planning of agricultural activities, but it may also inhibit the development of effective emergency plans and early warning systems for flood preparedness within the municipality. In line with this, a key process to make climate change discussion a critical component of the local agenda is to improve the information base of climate change adaptation issues within the Keta municipality.

Effective planning is contingent on knowledge about the phenomenon one is planning for and in the case of climate change adaptation, a comprehensive risk assessment of current and future climate impacts as well as the vulnerability situation in the wake of threatening climatic impacts is key to facilitating adaptation and enhancing resilience. The absence of these measures makes planning for climate change reactionary (Forino, von Meding, and Brewer 2018; Pilato, Sallu, and Gaworek-Michalczenia 2018). Also, another challenge indicated is the competition in local priorities which is in consonance with several studies (Rietig 2019; Vij et al. 2018). These studies also find that

the planning agenda at given local authorities is usually always full, as climate change adaptation has always competed for space with more pressing needs of local government. This study wishes to argue that besides political motivation to provide more of municipal services other than climate change adaptation, a strong case can also be made for the availability of resources. The issue of resources cannot easily be overlooked since it is indispensable to carrying out all decisions including political decisions.

Limitation and recommendation

A major limitation of this study is the exclusion of views from Farmer-Based Organisations (FBOs). It is thus recommended for future studies to include FBOs in order to examine the extent of their integration in climate policy integration at the local level of development.

Conclusion

Climate policy integration remains an issue at the district level, according to the conclusions of the study. While districts have implemented a variety of strategies in response to their vulnerabilities, it appears that there is still room to improve these strategies in order to achieve full adaptive capability.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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