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Integrating climate adaptation, water governance and conflict management policies in lake riparian zones: Insights from African drylands

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ABSTRACT

As river basin authorities and national governments develop policies to achieve sustainable development outcomes, conflicting signals between existing policies are undermining cross-thematic integrative modes of policy planning. This raises fundamental questions over how coherent portfolios of policy interventions across vital themes can best be advanced and managed. Taking the Lake Chad Basin (LCB) as an empirical example, we analyse transboundary policies and intervention documents relating to climate adaptation, water governance and conflict management to ascertain the interdependencies at the adaptation-water-peace nexus. Using a Qualitative Document Analysis (QDA) approach and a set of subjective integration scoring criteria, we assess whether and how integration is planned, setting out ways forward for mutually beneficial integration actions. Despite recent progress in addressing lake drying and recognising cross-thematic challenges, most LCB intervention plans continue to adopt standalone basin-scale agendas and seldom consider action plan preparedness based on local-level assessments. Analysis of a few (existing) cross-thematic, well-integrated initiatives indicates that the timings of societal challenges and funding arrangements appear to play a key role in shaping policy strategies, the manner in which climate adaptation, water or security are treated and the level of integration attained. Based on the notion that integration is inherently desirable, we suggest a new 'policy integration thinking' that embraces a development landscape logic and balances short-term and long-term development priorities.

1. Introduction

Water is a medium through which societies in lake riparian zones will experience climate impacts, as well as lake drying and conflict challenges (Rast, 2014; Dinar et al., 2015). It represents the means through which climate adaptation will spur conflict management and better livelihood outcomes. Water is not a sector *per se* in a transboundary context (Subramanian et al., 2014), but a resource for livelihood development, climate adaptation and peace building. As such, effective water governance and human security planning will need to take adaptation into account, and conversely, climate adaptation initiatives will require water and security interventions to succeed (Babcicky, 2013). Indeed, water action, peace action and climate action need to move together to engender social stability in transboundary lake regions (Gustafsson, 2016). This justifies why the integration of climate adaptation, water governance and conflict management in conflict-prone settings is now incorporated within progressive discourses of international environment and development agendas

(Ludwig et al., 2011). Yet, integration[1] has not been mainstreamed by national decision-makers or transboundary river basin authorities of many developing countries (Gerstetter et al., 2011), possibly due to a lack of ready-to-use, evidence-based decision-support tools that can inform the process of cross-thematic integration.

We present findings emerging from a Qualitative Document Analysis (QDA) of action plans, initiatives, strategies and advisory engagements regarding climate adaptation, water resources governance and conflict management. Analyses of cross-thematic interventions and their integration are relevant to identify where initiatives on key thematic areas support or conflict one another. The article is developed on the premise that a lack of effective cross-thematic action plans in dryland transboundary settings may impede climate adaptation, spur water competition and aggravate conflicts (Babcicky, 2013). Thus, institutionally-driven policy initiatives can be an essential part of integrating climate adaptation, water governance and conflict management efforts, including enabling situations where achievement of development agendas in one area of societal concern does not

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[1] We contextualise 'integration' as when climate adaptation actions include options for water governance and conflict management, when water governance activities accommodate adaptation and conflict prevention approaches, and when conflict management efforts account for climate adaptation and water governance needs.

undermine the achievement of the agendas of another (Stringer et al., 2014).

The article is grounded in the Lake Chad Basin (LCB) riparian zones of Cameroon, Chad, Niger and Nigeria. Economic development in these dryland zones has been sluggish since the 1980s (Okpara et al., 2015). Dialogues on cross-thematic interventions within the LCB have identified the importance of strengthening partnerships and collaboration to manage the resources of the basin and to address the impacts of environmental changes, as well as to develop an appropriate institutional context to support needs-based policy actions (Asah, 2015). The need to harmonise and drive actions on resource management was recognised in the mid-1960s following the Forty Lamy Convention (Sand, 1974), which led to the establishment of the Lake Chad Basin Commission (LCBC). The LCBC is a water cooperative agent that serves as a regional agency for communications between governments, NGOs and communities, and also for cross-ministerial/sectoral communications on climate change, security and water governance issues (Odada et al., 2006). Its key role is to facilitate benefit-sharing between riparian countries and prevent unilateral actions that may harm local livelihoods and riparian economies (see LCBC, 2015).

Despite the central role of the LCBC, the Lake area remains a vulnerability hotspot (see Okpara et al., 2016a). Several action plans have been initiated, yet analyses are lacking regarding whether actions/initiatives on water, climate adaptation and security are being integrated sufficiently to encourage mutual co-habitation and resilience building at the basin level. In this article, we identify and evaluate policy intervention documents related to the LCB, and identify ways forward that better integrate climate adaptation, water governance and conflict management goals based on LCB's experience. We ask:

- What is the range of policy initiatives developed/implemented to reverse lake drying and promote better livelihoods?
- Is adaptation-water-peace integration planned?
- What considerations/new ways of thinking about policy integration are needed to integrate policies or goals related to climate adaptation, water governance and conflict management in a transboundary basin context?

Document screening identified whether subjects pertaining to climate adaptation, water governance/management and conflict management/peacebuilding featured in the LCB's policy actions and initiatives. This pinned down both the content of policy goals/initiatives and the drive towards integration. Document analysis then identified whether and how integration is planned, elucidating lessons for future planning. The approach presupposes that the LCBC's action plans and policies reflect integration espoused at the international level at least in the past decade (i.e. the period conflicts increased markedly across the region). This is because the LCBC, by its mandates, is aware of the various manifestations of environmental hardship and contentions across the basin's riparian zones and is supported by the riparian states and development/donor agencies to integrate cross-thematic issues and pursue developmental objectives.

2. Theoretical basis

2.1. Climate adaptation, water and conflict management

Climate adaptation has continued to rise on the agendas of states, development actors and researchers, spurred by the growing evidence that changes in climatic conditions are real and already undermining security in several places (Mcgray et al., 2007). Although climate adaptation has been defined as 'adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities' (IPCC, 2014, p. 5), multiple environmental, technical and institutional measures qualify as adaptations. They range from local dams and urban water desalination infrastructure to water markets and pricing strategies. Some measures can nevertheless spur more harm than good in riparian zones, or can enhance carbon emissions. Adaptations that increase risks have been called 'mal-adaptations' (Barnett and O'Neill, 2010; Juhola et al., 2016). Broadly, climate adaptations can lead to conflict in several ways, if they are: (i) incoherent with important socio-political processes (e.g. poverty reduction and water management); (ii) designed to capture national level concerns at the expense of subnational challenges; (iii) not participatory enough to engage affected individuals and stakeholder groups; (iv) designed to reinforce inequities or 'set up' distinct groups or communities as competitors; (v) perceived as illegitimate, especially if they ignore property rights.

Mal-adaptation has become vital in the debate regarding security implications of climatic disturbances (Kallis and Zografos, 2014). To prevent mal-adaptation, climate adaptation planning needs to be conflict-sensitive (Barnett and O'Neill, 2010; Babcicky, 2013; Rüttinger et al., 2015; Juhola et al., 2016). To achieve this, security policy discussions need to align with those on adaptation design (i.e. to reconceptualise climate adaptation in the language of security) applying, e.g., the 'do no harm' principle (Tänzler et al., 2013). This principle aims to engender socio-political transformation and foster opportunities to build sustainable societies. Effective adaptations should not erode established social cohesion – they should not generate friction or resistance (Milman and Arsano, 2014). Similarly, Babcicky (2013) suggests that there is need to: understand the context in which people live and work, including how institutions operate; understand the interactions that are prevalent in different areas, including between sectors, activities and contexts; and act upon these understandings to prevent potential negative effects in order to optimise positive ones. Indeed, the task for conflict-sensitive climate adaptation action requires multiple tiers of actions across scales (household to the global level), alongside effective coordination (reconciliation) of approaches between vital policy areas (Vivekananda et al., 2014). It also demands negotiation amongst stakeholders with diverse agendas and preferences (Gustafsson, 2016).

Water governance represents 'the exercise of authority' in water-related actions (Kuzdas and Wiek, 2014). Governance can indeed encompass conflict management (Gehrig and Rogers, 2009). Water cannot be governed for one purpose or in the case of shared water, for a single country; it is inherently a political issue requiring multi-level participation and engagement. The growing water crisis around the world is increasingly considered a problem of governance rather than one of scarcity (Perreault, 2014; Dinar et al., 2015). In structuring water governance, policies often map the overall direction, whereas laws create the official or informal 'rules of service delivery' and authorise the institutional or organisational structure to drive policy implementation. Policies as purposive courses of action are often made explicit in documents by a capable authority/state. Laws encompass written, unwritten or customary rules and practices. Together, policies and laws create the 'governance template' that constitutes the action plan for institutions and management practices. If policies, laws and organisations set the institutional structures, decision-making processes enhance the manner in which actors, stakeholders and the general public proceed along the water governance ladder (DE Stefano et al., 2014).

Robust decision-making processes that are participatory and decentralised facilitate good water governance (Tortajada, 2010). Such processes can place new ideas before key decision-makers, facilitating awareness of the opinions held by society (Matthews and Schmidt, 2014). Good water governance is essential for peaceful co-existence in lake environments (Grafton et al., 2013). Several approaches exist for transboundary locations (Subramanian et al., 2014; Dinar et al., 2015). Designing treaties for joint river governance requires paying attention to the web of bilateral and multilateral interactions that influence interests, regulations, and responsibilities within riparian zones and lakeside communities (Turner et al., 2012). Other approaches include: (i)