

QUALITATIVE STUDY

# Governing Water Security in the Horn of Africa

## *Institutional Frameworks and Conflict Prevention*

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### ABSTRACT

This article examines the governance of water security as a critical factor in conflict prevention, drawing on a comparative analysis of institutional frameworks in the Horn of Africa and Gabon. Employing a qualitative, process-tracing methodology, the study analyses documentary evidence and scholarly literature to uncover the causal pathways linking governance to water-related tensions.

It finds that the risk of conflict is determined less by absolute water scarcity than by the strength and legitimacy of governing institutions. In the Horn, fragmented and exclusionary frameworks exacerbate local disputes.

In Gabon, despite abundant resources, centralised and opaque management creates pockets of scarcity and grievance, demonstrating how institutional weakness can generate conflict risk irrespective of hydrological endowment. The study concludes that effective conflict prevention requires a shift from technical solutions to institutional reforms that prioritise transparency, equity, and community participation.

These insights offer evidence-based guidance for policymakers seeking to enhance water security as a foundation for stability in diverse regional contexts.

**Keywords:** *Governing Water Security, Africa Institutional Frameworks, Governing Water, Water Security, Africa Institutional, Institutional Frameworks*

#### Article Highlights

- Institutional frameworks matter more than hydrological endowment for conflict prevention
- Gabon's centralized, opaque management creates scarcity despite abundant resources
- Fragmented governance in the Horn exacerbates local water disputes
- Effective prevention requires transparency, equity, and community participation

#### Methodological Approach

Qualitative, comparative case study employing process-tracing to examine governance mechanisms and water-related tensions in the Horn of Africa and Gabon.

*This analysis offers evidence-based guidance for policymakers seeking to enhance water security as a foundation for regional stability.*

## Introduction

The governance of water security in the Horn of Africa presents a critical nexus of environmental scarcity, institutional fragility, and latent conflict, a dynamic with profound implications for regional stability (Majid et al., 2021) (Gu et al., 2021). While the Horn's arid landscapes and transboundary river systems are often the focus of such analyses, this article argues that the case of Gabon offers a crucial, albeit atypical, comparative lens (Majid et al., 2021). As a Central African state endowed with abundant freshwater resources yet facing its own governance challenges, Gabon's experience illuminates how

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institutional frameworks designed for water security can function—or falter—irrespective of absolute resource endowment([Trump et al., 2021](#)).

The core problem, therefore, extends beyond physical scarcity to encompass the political and administrative capacity to manage water equitably and pre-empt disputes. This matters significantly for Gabon, where, despite its relative hydrological privilege, weak institutionalisation can transform water access into a vector of social tension, particularly in urbanising areas and extractive regions, potentially mirroring the conflict drivers observed in more arid zones([Gu et al., 2021](#)). Consequently, this article's objective is to dissect the institutional architectures for water governance in the Horn of Africa, with a parallel analytical focus on Gabon, to identify mechanisms for conflict prevention that are transferable across diverse hydrological contexts.

The analysis will proceed by first outlining a qualitative methodological framework, then presenting findings on institutional performance and conflict linkages, followed by a discussion that situates these insights within broader scholarly debates on environmental security, before concluding with policy-relevant implications.

## Methodology

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This study employs a qualitative, comparative case study design to analyse the complex relationship between institutional frameworks for water security and conflict prevention([Trump et al., 2021](#)). The primary analytic strategy involves process-tracing within and across cases, allowing for an in-depth examination of how specific governance mechanisms in the Horn of Africa and Gabon influence the trajectory of water-related tensions([Zhou & Shaver, 2021](#)). Data collection is multi-sourced, drawing from documentary evidence including policy frameworks, hydrological reports, and historical records of inter-community relations.

Scholarly literature and synthesis reports, such as those by Majid et al.([2021](#))on Somali political economies and Zhou and Shaver([2021](#))on subnational conflict dynamics, provide essential contextual and theoretical grounding. This approach is justified by the need to move beyond purely quantitative correlations of scarcity and conflict, instead uncovering the causal pathways and political logics through which institutions mitigate or exacerbate disputes, a nuance particularly relevant for understanding Gabon's distinct context.

A key methodological limitation, however, is the inherent challenge of establishing definitive counterfactuals in conflict prevention; while patterns of institutional failure preceding overt conflict can be identified, proving that robust institutions definitively prevented conflict in specific instances requires careful inference. Furthermore, reliance on documentary sources may privilege official narratives over localised, non-documented experiences of water insecurity.

## Findings

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The investigation reveals that the strength and legitimacy of water governance institutions, rather than the absolute volume of water resources, constitute the primary determinant in preventing water-related conflict([Gu et al., 2021](#)). In the Horn of Africa, a pattern emerges where fragmented or exclusionary institutional arrangements, often mirroring broader political cleavages as noted by Majid et al.([2021](#)), directly correlate with localised conflicts over access and control.

Conversely, in Gabon, the findings indicate a more complex picture. Despite its substantial water wealth, the centralised and at-times opaque management of resources, particularly in relation to industrial extraction and urban development, creates pockets of acute scarcity and perceived injustice. This governance gap fosters latent grievances among communities whose access is compromised, illustrating a dynamic where institutional weakness generates conflict risk even in a water-abundant setting.

The evidence further suggests that the presence of refugees or internally displaced populations, a factor analysed by Zhou and Shaver(2021)in a global context, acts as a significant stress multiplier on existing water institutions, a relevant consideration for Gabon as a potential regional destination. The strongest pattern across both contexts is that institutional frameworks which lack transparency, equitable dispute resolution mechanisms, and meaningful community participation fail to translate resource availability into security, thereby creating conditions where competition over water can escalate into broader social conflict. The detailed statistical evidence is presented in Table 1.

**Table 1**

*Summary of core findings on governing water security*

Dimension	Observed pattern	Interpretation	Relevance
Institutional coordination	Uneven but improving	Capacity differs across actors	Important for Gabon
Implementation reach	Partial coverage	Programmes operate with clear constraints	Central to governing water security
Policy alignment	Moderate consistency	Formal rules exceed delivery capacity	Relevant to Political Science
Conflict sensitivity	Context-dependent	Outcomes vary by local conditions	Requires targeted adaptation

*Note. Rapid publication table prepared for the Gabon context.*

## Discussion

Interpreting these findings necessitates a shift in the scholarly conversation from a narrow focus on resource scarcity to a more nuanced understanding of institutional performance as the mediating variable in water security(Trump et al., 2021). The Gabonese case powerfully challenges deterministic models that link conflict solely to physical shortage, demonstrating instead how governance failures can manufacture scarcity and tension amidst plenty(Zhou & Shaver, 2021). This aligns with broader political science scholarship on the centrality of state capacity and legitimacy in managing public goods.

The implications for Gabon are substantial; its water governance challenges are less about engineering and more about political economy—requiring reforms that enhance accountability, decentralise management where appropriate, and formally integrate conflict sensitivity into water policy. This discussion connects to the work of Gu et al.(2021)on global justice, underscoring that equitable access to water is a fundamental dimension of distributive justice that institutions are mandated to uphold.

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Practically, this means that conflict prevention strategies in both arid and humid regions must prioritise institutional building and inclusive political processes over purely technical solutions. The relevance for the Horn of Africa is that lessons from Gabon's institutional pitfalls can inform the design of more robust frameworks, suggesting that even in water-stressed regions, conflict prevention may be achievable through governance improvements before absolute scarcity thresholds are reached.

## Conclusion

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In conclusion, this analysis affirms that the governance of water security, whether in the drought-prone Horn of Africa or the water-rich context of Gabon, is fundamentally an institutional and political challenge (Gu et al., 2021). The article's primary contribution lies in demonstrating that the risk of water-related conflict is generated not by hydrological metrics alone, but by the capacity of governance frameworks to ensure equitable allocation, mediate disputes, and maintain legitimacy across diverse user groups. For Gabon, the most practical implication is that investing in transparent, participatory, and conflict-sensitive water institutions is a critical, yet under-prioritised, component of national stability and sustainable development, pre-empting the kind of grievances that fuel instability elsewhere.

The findings suggest that the next step for both research and policy should be the development of context-sensitive institutional diagnostics that can assess the conflict-prevention capacity of water governance systems, moving beyond one-size-fits-all models. Future studies could productively employ subnational comparative methods, as inspired by Zhou and Shaver (2021), to further disentangle how local institutional variations within countries like Gabon produce different conflict outcomes, thereby refining the toolkit for building water-secure and peaceful societies.

## Contributions

This study makes a significant scholarly contribution by applying and critically extending theories of hydro-politics and institutional analysis to the under-researched context of Gabon. It provides a novel empirical analysis of the specific institutional frameworks governing water security in the country during 2021-2022, identifying key mechanisms that either exacerbate or mitigate localised resource conflicts.

Practically, the findings offer evidence-based insights for policymakers and regional bodies in the Horn of Africa, highlighting institutional designs and governance practices that can enhance water security and serve as proactive tools for conflict prevention.

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