



ALTERNAUTAS

(Re)Searching Development: The Abya Yala Chapter

VOL.12-ISSUE 1[JULY 2025]

Afro-Ecuadorian Territorial Struggles and the Politics of Water Governance in the Chota Valley

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Accepted: 24 July 2025 / Published online: 31 July 2025

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How to cite: Megens S. & Warner J. (2025), Afro-Ecuadorian Territorial Struggles and the Politics of Water Governance in the Chota Valley. *Alternautas*, 12(1), 61-90. DOI: 10.31273/2exr1m96

University of Warwick Press
<http://www.alternautas.net>



ISSN - 2057-4924

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Afro-Ecuadorian Territorial Struggles and the Politics of Water Governance in the Chota Valley

Abstract: This article examines how Afro-Ecuadorian communities in the Chota Valley, of the Ecuadorian Mira River Basin, struggle with water scarcity, drought, and exclusion from water access due to historical claims to collective rights. It argues that water governance in this region is deeply political, shaped by historical marginalization, unequal access to irrigation, and the undervaluation of ancestral water practices. Using a case study approach, based on interviews with community members, local leaders, and key stakeholders, the research highlights how Afro-Ecuadorian struggles for water are linked to broader claims over territory, cultural identity, and rights. The findings reveal that in the context of recurrent droughts and environmental vulnerability, Afro-descendant communities maintain collective governance practices while contesting unequal water distribution and the limitations of state-led governance frameworks. By documenting these experiences, the study contributes to political ecology debates on hydrosocial territories and resource governance, emphasizing the need for inclusive water governance models that recognize both ancestral rights and community-based strategies for resilience. This effort presents a critical opportunity to protect the ecological health of the Chota River and recognize its cultural significance as an element of the region's intangible national heritage in the face of water scarcity.

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Keywords: Water governance, Collective rights, Drought, Afro-Ecuadorian. Chota Valley

Resumen: Este artículo examina cómo las comunidades afroecuatorianas en el Valle del Chota, de la Cuenca del Río Mira en Ecuador, luchan contra la escasez de agua, la sequía y la exclusión del acceso al agua debido a reclamos históricos de derechos colectivos. Argumenta que la gobernanza del agua en esta región es profundamente política, moldeada por la marginación histórica, el acceso desigual al riego y la subvaloración de las prácticas ancestrales del agua. Utilizando un enfoque de estudio de caso, basado en entrevistas con miembros de la comunidad, líderes locales y partes interesadas clave, la investigación destaca cómo las luchas afroecuatorianas por el agua están vinculadas a reclamos más amplios sobre el territorio, la identidad cultural y los derechos. Los hallazgos revelan que, en el contexto de sequías recurrentes y vulnerabilidad ambiental, las comunidades afrodescendientes mantienen prácticas de gobernanza colectiva mientras impugnan la distribución desigual del agua y las limitaciones de los marcos de gobernanza liderados por el estado. Al documentar estas experiencias, el estudio contribuye a los debates de ecología política sobre territorios hidrosociales y la gobernanza de recursos, enfatizando la necesidad de modelos de gobernanza del agua inclusivos que reconozcan tanto los derechos ancestrales como las estrategias comunitarias para la resiliencia. Este esfuerzo presenta una oportunidad crítica para proteger la salud ecológica del río Chota y reconocer su importancia cultural como elemento del patrimonio nacional inmaterial de la región frente a la escasez de agua.

Palabras clave: Gobernanza del agua, Derechos colectivos, Sequía, Afroecuatoriano, Valle del Chota

Introduction

In Latin America, Afro-descendant communities have historically defended their rights to land and water as intrinsic to their cultural identity, collective memory, and survival. As emphasized by the Inter-American Commission on Human Rights (IACHR, 2019), safeguarding these collective rights requires addressing both historical marginalization and contemporary governance challenges.

In Ecuador, despite constitutional recognition of collective rights (Constitución de la República del Ecuador, 2008)³, Afro-Ecuadorian communities, particularly territories with marginalization [limited state attention], remain on the periphery of land and water governance frameworks. Their claims intersect with broader debates on the political ecology of water, where resource access and control are deeply shaped by power relations, cultural narratives, and socio-environmental dynamics. The concept of hydrosocial territories (Boelens et al., 2016; Mills-Novoa et al., 2020) offers a lens through which to examine governance dimension and the cultural value of water, where water is not just a natural resource but also a social construct shaped by political, economic, and cultural factors. These ancestral territories embody cultural significance and historical relationships with the land and water, shaping Afro-Ecuadorian governance practices.

This article focuses on the Chota Valley, a historically Afro-descendant region located within the upper Mira River Basin in northern Ecuador, between the provinces of Imbabura and Carchi. Characterized by its semi-arid climate, with annual rainfall below 500 mm, the valley faces recurrent droughts, land degradation, and escalating water scarcity. These environmental pressures are compounded by historical land dispossession, persistent economic disadvantages, and limited access to water resources. Despite these adversities, Afro-Ecuadorian communities in the Chota Valley have maintained resilient cultural practices, collective governance strategies, and active engagement in water-related struggles.

This study aims to examine how Afro-descendant communities in the Chota Valley perceive and engage with collective property rights (Krier, 2009) and cultural heritage Pabon (2009) in the context of water scarcity, without assuming unified or essentialist interpretations of these concepts. It also seeks to analyze their participation in water governance and how they redefine their relationship with water resources and ancestral territories (García & Walsh, 2009; García 2010). The research further explores the tensions between cultural recognition, political instrumentalization, and local conceptions of ancestral rights, focusing on how these dynamics influence access to and governance of water in these ancestral territories. See the following figure of the Chota River, and the study area location.

³ Constitución de la Republica del Ecuador: https://www.defensa.gob.ec/wp-content/uploads/downloads/2021/02/Constitucion-de-la-Republica-del-Ecuador_act_ene-2021.pdf

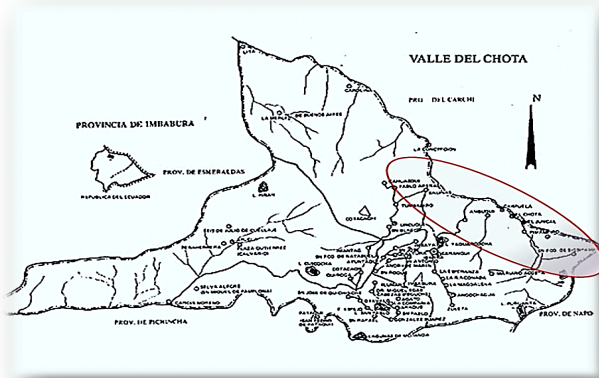


Figure 1. Afro-Ecuadorian territory (Adapted map of the Chota Valley with highlighted study area. Adapted from *El Valle del Chota*, by F. Ruiz, 2011, [Valledelchota.wordpress.com](https://valledelchota.wordpress.com/2011/07/12/el-valle-del-chota/) (<https://valledelchota.wordpress.com/2011/07/12/el-valle-del-chota/>). Used under fair use for academic purposes)

This case study seeks to answer a central research question: How (do) Afro-Ecuadorian communities adapt to extreme environmental conditions, participate in water governance, and reshape their relationship with water resources as well as their understanding of ancestral territories? The Chota Valley, classified as a semi-arid region with annual rainfall of less than 500 mm, exemplifies these harsh environmental conditions. Periodic droughts, often intensified by El Niño events, intensify the vulnerability of the region. The growing risk of wildfires reflects this fragility; in 2023 alone, more than 2,500 hectares were lost to over 300 fire incidents.

To answer this, the study employs a qualitative methodology, focusing on interviews with key stakeholders involved in policy and practice. These interviews explore how the community's relationship with the Chota River, water management practices, and perceptions of irrigation technologies shape local

Comentado [EP1]: I would like to know what extreme environmental conditions you are talking about. more precise in the description.

Comentado [sm2R1]: The Chota Valley, a semi-arid region receiving less than 500 mm of rain annually, faces intensified droughts during El Niño events. In 2023 alone, over 2,500 hectares were lost to more than 300 wildfire incidents, highlighting the area's growing fire risk.

decision-making and environmental strategies. Recognizing water as a vital and cultural resource emphasizes the importance of safeguarding the Chota River's collective values and its intangible national heritage during increasing water scarcity.

Methodologically, this research adopts a qualitative case study approach, combining in-depth interviews with community leaders, water management stakeholders, and local organizations. This methodology allows for an exploration of historical memory, cultural identity, collective rights shape water governance practices and community resilience in the Chota Valley context.

This research makes three main contributions:

Empirically, it documents the lived experiences of Afro-Ecuadorian communities in a region underrepresented in water governance studies, highlighting their strategies of adaptation and resistance.

Conceptually, it deepens the understanding of the political ecology of water by integrating the dimensions of historical memory and ancestral rights within hydrosocial territories.

Policy-relevant, it offers insights into the limitations of current (water) governance framework and calls for more inclusive, culturally grounded water policies that recognize Afro-descendant rights.

The article is structured as follows: Section 2 reviews the theoretical framework on political ecology, hydrosocial territories, and Afro-descendant rights. Section 3 presents the case study context and research methodology. Section 4 analyzes the findings on community water governance, ancestral claims, and adaptive strategies. Section 5 discusses the implications for water governance debates in this region. The conclusion highlights key contributions and recommendations for policy and further research.

Theoretical and Conceptual Framework

Understanding the water governance struggles of Afro-Ecuadorian communities in the Chota Valley requires engaging critically with concepts from political ecology, environmental governance, and Afro-descendant rights. This chapter outlines the key theoretical tools that guide the study, emphasizing the intersections of water, land, and cultural identity in ancestral territories shaped by exclusion and socio-environmental vulnerability.

Hydrosocial Territories and Afro-Ecuadorian Struggles

The concept of hydrosocial territories (Boelens et al., 2016) provides a critical lens for analyzing how water, territory, and social relations are co-constructed in contested spaces. Rather than seeing water merely as a resource governed through technical management, this approach foregrounds the dynamic ways in which water flows, governance structures, power relations, and cultural identities are historically intertwined. Hydrosocial territories are shaped through both formal institutions and community-based practices, making them inherently political and subject to struggle. As Boelens argues, these territories are “arenas of negotiation, conflict, and alliance-making” where various actors seek to assert control, redefine rights, and reshape governance.

Other authors such as Hommes et al. (2019) analyze how rural and urban communities in Ecuador engage in dynamic struggles over water, particularly as urbanization processes reshape hydrosocial territories. Their study emphasizes how evolving rural–urban connections, competing discourses, and shifting identities are embedded in historical power relations and contestations over access and governance. These dynamics reveal that water struggles are not confined to rural settings but are part of broader processes of territorial negotiation and identity formation across rural and urban spaces. Similarly, Afro-Ecuadorian communities in the Chota Valley assert their agency by reshaping governance arrangements, resisting imposed water management models, and defending their territorial rights amid environmental and political pressures.

Water Governance, Water Scarcity, and Collective Rights

A central distinction in water research is that between water governance and water management. Water management generally refers to the technical and operational aspects of controlling water flows, infrastructure, and distribution systems, tasks often entrusted to state agencies, municipalities, or private actors seeking efficient and sustainable use. In contrast, water governance encompasses the broader social, political, and institutional processes that define how decisions about water are made, who participates, whose knowledge counts, and how rights are allocated (OECD, 2018). In the Chota Valley, governance is inseparable from questions of racial identity, land ownership, and historical exclusion, making water governance a deep political issue.

This distinction also clarifies the difference between drought and water scarcity. Drought is a climatological phenomenon marked by periods of below-average precipitation. In contrast, water scarcity often results from socio-political dynamics such as governance failures, inequitable distribution, and infrastructural

neglect. As Swyngedouw (2009) emphasizes, water scarcity must be understood through the lens of political ecology, which reveals how governance structures and power relations shape both access and scarcity. In the Chota Valley, addressing water challenges means unpacking these socio-political factors rather than reducing scarcity to a natural hazard.

Equally important is the debate on collective rights and access to hydrosocial ancestral territories. Boelens et al. (2019) highlight that water governance is inherently tied to struggles over identity, territory, and collective rights in contested landscapes. Similarly, Talbot-Jones and Bennett (2019) discuss how property rights theory and the emerging legal recognition of rivers illustrate the persistent invisibility of Afro-Ecuadorian communities in national policy frameworks, even when constitutional provisions recognize Indigenous and Afro-descendant rights. Despite their historical ties to the land and active engagement in environmental stewardship, Afro-Ecuadorian communities remain marginalized in policy debates that tend to privilege Indigenous frameworks.

Ecuador's 2008 Constitution recognizing Indigenous justice (Art. 57) and Rights of Nature (Arts. 71–74), marked a global shift in environmental law by granting legal personhood to ecosystems. However, this recognition did not extend equally to the governance rights of Afro-Ecuadorian communities, despite community mobilizations (e.g., resistance to water privatization in Imbabura). This legal gap reinforces the need for broader inclusion in natural resource justice.

Moreover, their struggles for water access are not solely about environmental management but also about reclaiming historical memory, defending territorial rights, and ensuring cultural survival. Therefore, this study situates Afro-Ecuadorian claims within broader debates on environmental justice and critiques the limitations of legal frameworks that inadequately recognize their rights and contributions.

Cultural Identity and Governance in Afro-Descendant Territories

Historical memory plays a central role in the governance of land and water among Afro-Ecuadorian communities. As García and Walsh (2009) argue, reclaiming ancestral territories is both a political and cultural act, an assertion of agency in the face of historical displacement, marginalization, and systemic violence. These territories are not just spaces of economic production but are deeply intertwined with identity, knowledge, and community resilience. The Chota Valley's Afro-descendant communities embody this connection, as their cultural practices,

social networks, and environmental knowledge systems are rooted in a shared historical experience of resistance and adaptation.

The concept of ancestral territories, as defined by Malone and Chisholm (2016), underscores the importance of socio-ecological spaces where Afro-descendant cultures have historically flourished. These spaces are critical for maintaining cultural identity, fostering resilience, and ensuring sustainable livelihoods. Yet, they remain contested and vulnerable to external pressures, including environmental degradation, land dispossession, and exclusion from governance structures. Recognizing Afro-Ecuadorian territorial claims involves acknowledging their right to self-determination and to shape environmental governance according to their cultural values and historical experiences.

In this context, the idea of natural resource, as water, managed collectively by a community, becomes a powerful lens for understanding Afro-Ecuadorian water governance. Unlike private property regimes that prioritize individual ownership, commons emphasize collective stewardship, shared responsibility, and equitable access. However, as critical scholarship on property rights suggests (Alchian & Demsetz 1973; Demsetz, 1967; Hart, 2023), commons are not free from conflict or inefficiency, especially when legal recognition is weak, and power asymmetries persist [referring to shared resources, including water, that are governed by collective community management and use]. In the Chota Valley, imprecise property boundaries and unclear governance rights often exacerbate tensions, particularly in times of environmental stress such as prolonged droughts, where extended periods of deficient rainfall long enough to significantly disrupt normal environmental, agricultural, and socio-economic activities. Strengthening collective rights and formalizing governance structures are therefore essential for enhancing community resilience.

As García and Walsh (2009) caution, interculturality in Latin America has been shaped by power imbalances, colonial legacies, and systemic inequalities that persist in governance and social relations. In the Chota River region, Afro-Ecuadorian communities faced complex interactions with Indigenous groups, state actors, and private entities, often under conditions that reproduce historical hierarchies. Understanding these dynamics requires moving past idealized views of intercultural dialogue to address the contested and often unequal realities of less successful environmental water governance.

Finally, heritage rights, as articulated by scholars such as Logan (2014), offer an entry point to recognize intangible cultural heritage related to rivers and water practices. Afro-Ecuadorian governance practices in the Chota Valley reflect a holistic integration of cultural identity, environmental stewardship, and political agency, Antón and Tuaza, (2014). These practices challenge dominant conservation narratives and underscore the need for governance frameworks that

respect and incorporate Afro-descendant perspectives on water, land, and resilience.

In conclusion, this conceptual framework give emphasis to the interconnectedness of water governance, cultural identity, historical memory, and socio-political rights in Afro-Ecuadorian ancestral territories. It highlights the need for a critical examination of governance structures and legal frameworks to better understand how communities navigate environmental challenges while asserting their rights.

The following chapter presents the methodological approach, based on qualitative research into Afro-Ecuadorian communities' experiences, water governance, and resilience in the Chota Valley.

Methodology

This study adopts a qualitative single-case design, with the Afro-Ecuadorian communities of the Chota Valley in northern Ecuador serving as the unit of analysis. It aims to examine how these communities experience seasonal drought and increasing climate variability, evident by declining rainfall and rising temperatures, which intensify water stress in the region, all within a broader landscape of environmental vulnerability and historical exclusion. The Chota Valley provides a compelling case for investigating the intersection of climate stress, cultural identity, and water-related governance challenges in Afro-descendant territories.

Drawing on Patton's (2002) framework for qualitative inquiry, the research prioritizes the documentation of overlooked narratives and lived experiences. This approach is particularly suited to capturing the insights of key local actors, such as youth, long-recognized elder leaders, and community members, who have historically played a central role in managing water issues and preserving Afro-Ecuadorian traditional environmental and cultural knowledge in the Chota Valley. The study's guiding questions focus on community resilience, local governance practices, and environmental pressures, with special attention to the cultural significance of rivers, their uses, and the forms of more oriented strategies that emerge in response to water scarcity. The following table shows the community participation and engagement on regional and local organisations.

Table 1. Afro-Ecuadorian Organizations (Northern Region)

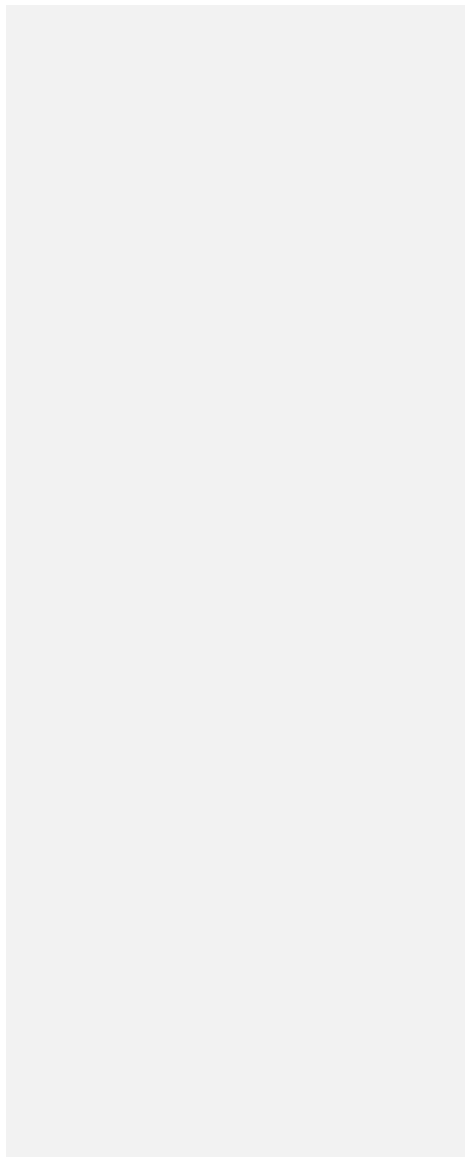
<i>Sector</i>	<i>Name of Organization</i>	<i>Acronym</i>
<i>Ethnic</i>	Federación de Comunidades Negras de Imbabura y Carchi	FECONIC
	Centro de Investigación de la Familia Negra	CIFANE
	Unión de Organizaciones Campesinas del Carchi	UNOCAR
	Federación de Organizaciones Indígenas, Negras y Campesinas	FENOCIN
	Confederación Nacional Afroecuatoriana	CNA
<i>Gender</i>	Cinnamon and purple intercultural association	ACAMPUR
	Grupo de Mujeres de la Concepción	La Concepción
	Fundación azúcar	FA/LAPORA
	Consejo Nacional de Mujeres Negras del Ecuador	CONAMUNE
<i>Productive</i>	Federación de trabajadores del Valle del Chota	FETRAVACH
	Ingenio Azucarero del Norte Compañía de Economía Mixta	IANCEM
	Corporación de Desarrollo Afroecuatoriano	CODAE
	Council for Development of Nationalities and People of Ecuador	CODENPE

Case Study Setting: Afro-Ecuadorian Communities in the Chota Valley

Afro-descendant communities in Ecuador are primarily located in the provinces of Esmeraldas, Imbabura, and Carchi. Those living in Esmeraldas, the Chota Valley, and the Mira Basin are part of the Confederation of Northern Afro-Ecuadorians (CANE). The ancestral territory of the Valle del Chota, La Concepción, and Salinas, located in the provinces of Imbabura and Carchi, north of Quito, covers an area of 4,523 km² (Chalá, 2006a; Coronel, 2015; INAMHI, 2018). The Chota Valley is classified as a semi-arid region, receiving only 100–300 mm of annual rainfall.

By 2010, Afro-Ecuadorian territories in northern Ecuador were home to more than 20,000 people, distributed across over 38 communities in Imbabura and Carchi. The Chota Valley, within this territory, contains cultural landmarks that preserve

the memory of slavery and represent Afro-Ecuadorian tangible heritage. The Chota River, originating in the western cordillera of the Andes, flows through Imbabura and joins the Ambi River, providing a vital water source for agriculture in the valley. However, the expansion of agro-industrial crops and mining activities has accelerated environmental degradation, negatively impacting smallholder farmers who depend on the land for their livelihoods. These communities face growing challenges related to water scarcity and soil erosion, which reduce agricultural productivity and threaten the long-term sustainability of their ancestral lands. Consequently, the protection of both the natural environment and cultural heritage has become a central concern for Afro-Ecuadorian communities in the region. The map illustrates the Chota-Mira River Basin, highlighting Afro-Ecuadorian ancestral territories in northern Ecuador. It shows key dynamics such as concentrated Afro-descendant communities, the presence of critical irrigation infrastructure like the Ambuquí system, and socio-economic challenges including migration and informal activities like smuggling. It also marks water treatment plants that play a role in local water governance. Overall, the map reflects a region shaped by territorial claims, water access struggles, and fragmented governance.



To complement and contextualize the interview data, a variety of academic studies, institutional reports, and community-based research were reviewed, e.g., the legal and policy study conducted by the Bernard and Audre Rapoport Center on the land rights struggles of rural Afro-Ecuadorian communities, based on field research and meetings held in Quito, Esmeraldas, and the Chota Valley in 2009. Other works consulted include Gavilanes & Toscano (2021) on Afro-Choteño heritage and tourism in Juncal, as well as the study *Estudio Territorio Ancestral Afroecuatoriano del Chota* (Antón Sánchez et al., 2022; 2013), which examines land access challenges in Afro-Ecuadorian territories. This study resulted from collaboration between academic institutions and grassroots organizations, including the Instituto de Altos Estudios Nacionales, Proyecto Equitterra, the Coordinadora de Mujeres Negras de Imbabura y Carchi, FECONIC, and the Consorcio de GADs de Territorios Ancestrales.

Additional sources included technical reports, hydrometeorological records, and key policy documents such as the Imbabura Provincial Irrigation Plan (2017–2037), the National Drought Plan (2021–2030), and national frameworks on land rights, ancestral territories, and community well-being ("Buen Vivir"). Institutional data from SENAGUA, MAATE, the Prefecture of Imbabura, and the National Institute of Hydrology offered insights into water governance and planning. Reports from the Economic Commission for Latin America and the Caribbean (CEPAL, 2006; 2020) highlighted the need for policies that empower Afro-descendant youth, address historical and structural inequalities, and protect their rights in various spheres.

Finally, a 2019 field visit to the Mira River and nearby communities provided first-hand observational data, grounding the research in local realities.

Case Study Protocol and Design

The study follows a structured case study protocol, as outlined by Yin (2008), beginning with the identification of a single bounded case: Afro-Ecuadorian responses to drought and water insecurity in the Chota Valley. The case design integrates multiple data sources to enable triangulation and thematic depth. Interviews were structured around core themes of resilience, hydro-social relations, governance, and collective water rights.

Informants were grouped into three main categories, community members, government representatives, and civil society actors, to capture diverse institutional and lived experiences. This categorization allowed for a more

complete picture of both bottom-up and top-down dynamics influencing water governance in the region.

The research process was shaped by the caution and, at times, understandable distrust expressed by community members toward external actors, a reflection of their historical marginalization and contested position within Ecuadorian society. This context influenced both access and dialogue during interviews, particularly on sensitive topics such as water rights and governance. While national discourse increasingly embraces concepts like the "rights of rivers," local perspectives often reveal skepticism, shaped by long-standing exclusion from decision-making processes and the persistent inequities faced by Afro-descendant communities in the Chota Valley.

Data Analysis Strategy

The data was examined to identify recurring patterns or themes [thematic coding], guided by the study's theoretical framework, which integrates resilience theory, views of water as both a physical and social element shaped by power relations, cultural practices, and historical inequalities, and collective environmental (land and water rights) rights. Themes were developed through an iterative review of interview transcripts, field notes, and secondary documents.

In addition, for ethical consideration, the participants gave informed consent verbally or in writing, with special care taken to protect the anonymity of respondents in sensitive contexts. Due to the pandemic restrictions, interviews were conducted both in person and remotely via digital platforms. Adopting a reflexive approach allowed us to remain attentive to the power dynamics inherent in the research process, while striving to foster respectful dialogue and collaboration with community members throughout the study.

The following section presents the main findings of the study, organized around the key themes that emerged from the analysis.

Results

This section presents the findings of a single-case, community-based study focused on Afro-Ecuadorian communities in the Chota Valley, northern Ecuador. Following a case study protocol, the data integrates semi-structured interviews, documentary sources, and field observations. The aim is to show the community lived experiences, as they face seasonal drought, water scarcity, and institutional exclusion. Organized thematically, the results explore the interplay between historical memory, cultural identity, and water governance.

Contextualizing the Chota Valley: Environmental and Historical Background

Afro-descendant communities in Ecuador, primarily located in Esmeraldas, Imbabura, and Carchi, where the Chota Valley forms part of the ancestral territories, of Chota, La Concepción, and Salinas, are currently strengthening grassroots and second-tier organizations, building alliances with Indigenous groups, and demanding recognition of their distinct rights within national development policies (Guerrero, 1997). This arid region receives only 100–300 mm of annual rainfall (INAMHI, 2018) and is home to over 20,000 people across 38 communities (Coronel, 2015). The Chota River, originating in the Andean cordillera, is central to local agriculture and culture but increasingly affected by environmental degradation. Land-use changes, agro-industrial expansion, and inadequate water infrastructure compromise both livelihoods and the region's ancestral heritage.

Over time, access to vital resources has been increasingly compromised by the expansion of large sugarcane estates, which have encroached on lands traditionally used by Afro-descendant communities.

While many of the facilities have been modernized to near-industrial levels, a few small, original, all-manual huts still operate, maintaining the heritage of traditional methods. The expansion of large sugarcane estates in the valley has not only reduced the ancestral lands of Afro-Ecuadorian communities but has also heightened competition for vital water resources essential for agriculture and daily life.

Recovering Historical Memory and Struggles for Water Justice

The research reveals how Afro-Ecuadorian communities have long mobilized to defend their ancestral lands and water rights. Historical reports and interview narratives emphasize struggles against land dispossession and institutional neglect. Community memory, especially among elder women and local leaders, highlights how river systems and acequias (irrigation ditches) are integral to Afro-descendant identity and survival.

Over time, access to vital resources has been increasingly compromised by the expansion of large sugarcane estates, which have encroached on lands traditionally used by Afro-descendant communities. Within the Chota Valley, the area known as Trapiche de Mascarilla (Valle del Chota) referred to by John Anton, 2019 offers evidence of what was once a prominent center for sugarcane

production and processing in the region. This site remains one of the few original structures in the Chota Valley, preserving the history of traditional South American sugarcane processing. The expansion of large sugarcane estates in the valley has not only reduced the ancestral lands of Afro-Ecuadorian communities but has also heightened competition for vital water resources essential for agriculture and daily life, Center, R. (2009).

Efforts to reclaim water rights are rooted in broader demands for recognition and equity. As documented by interviewees and in institutional reports, these communities continue to face exclusion from national water governance frameworks (e.g., SENAGUA, MAATE), despite their documented contributions to local water management.

Community organizations have repeatedly mobilized to defend their land and water rights, denouncing unequal access to irrigation, land dispossession, and state neglect (Anton et al., 2023). Despite national advances in legal frameworks, such as the recognition of Indigenous rights and the "rights of nature" in the 2008 Constitution, Afro-Ecuadorian claims for territorial and water justice remain largely ignored in public policy. This disconnect often fuels skepticism toward state-led initiatives, including recent advocacy for the "rights of rivers," which some community members perceive as detached from their daily struggles for survival and recognition.

Empowerment Through Collective Organization and Local Knowledge

Interviews and field notes underscore the role of grassroots organizations and traditional leaders in sustaining water governance. Elder women and community leaders are key custodians of traditional water knowledge, while youth networks and activists have begun challenging dominant narratives and seeking political inclusion.

Juárez Rodríguez (2023) shows how the territorial rights struggle led by Black women of CONAMUNE is deeply connected to reclaiming spaces of memory and resistance, such as the Chota Valley. In this context, recovering the cultural significance of the Chota River becomes part of a broader project of asserting Afro-Ecuadorian presence, restoring historical narratives of dispossession, and linking ancestral water practices to ongoing claims for land, identity, and justice.

In this sense, the political advocacy for territorial rights directly intersects with community-led efforts to recover the cultural and historical significance of the Chota River, reinforcing both as vital expressions of Afro-Ecuadorian identity and resistance

The Ambuquí irrigation canal, located in the Chota Valley, 30 km north of the city of Ibarra, exemplifies these tensions. Built in 1977, it has suffered from erosion, lack of maintenance, and unequal water distribution, have further compromised its function. The system suffers from a lack of original design plans, and current operators are unclear about the purpose and condition of key infrastructure, which likely collapsed before 2010. Moreover, operators lack updated technical training and proper tools, making inspection and maintenance difficult or impossible.

Community perspectives highlight a disconnect between technical water infrastructure and the everyday realities of those who depend on it. Young voices stand out by emphasizing water not only as a vital resource but also as a fundamental right. One young activist reflected: “While we’ve been watching the river all this time, we’re just now beginning to understand what its management really means.”

Despite the existence of some formal participation mechanisms, water governance in the Chota Valley remains fragmented and exclusionary. Consultations with SENAGUA revealed the absence of reliable data on actual water use, particularly for small-scale or informal irrigation systems. This disconnects between formal water concessions and real usage patterns has deepened inequities, often favoring large agricultural producers over smallholder farmers.

Interviewees also highlighted persistent conflicts related to environmental service payments, the functioning of irrigation boards (in Spanish: JARs), and the lack of genuine local representation in water management structures. Among the voices emerging from the community, a young academic and prospective PhD researcher from the Chota Valley. He embodies a new generation of Afro-Ecuadorian scholars who critically engage with local struggles over land, water, and cultural rights. As both a community advocate and intellectual leader, Palacios reflects the ongoing efforts to challenge marginalization and assert the visibility of grassroots actors in water governance debates.

The Chota River: More Than a Water Source

The Chota River and its tributaries are not only ecological lifelines but also cultural symbols. The river is central to agricultural practices, oral history, and community rituals. One key theme in interviews was the fear that if the river disappears, too will Afro-descendant cultural heritage.

The Chota River, a vital water source for Afro-Ecuadorian communities in the valley, faces significant challenges that threaten local livelihoods. Most significant among these are reduced water flow and deteriorating water quality.

While both issues are critical, ongoing debates center on whether water scarcity or declining quality poses a greater threat to the region's sustainability. The Chota River basin's hydrological regime is shaped by steep riverbed slopes and the flow contributions from its tributaries. The river's flow is highly dependent on seasonal rainfall, with water levels typically rising during the rainy season, which occurs between July and August. However, this reliance on seasonal rain has created a precarious situation, as periods of drought disrupt the availability of water needed for agricultural activities and daily life. The variability of the climate, combined with increasing water scarcity, has profound consequences for the local communities who depend on the river for their livelihoods.

Beyond its role in sustaining agriculture, the Chota River holds deep cultural and historical importance for the Afro-Ecuadorian communities in the region. Despite its significance, access to water has long been a contentious issue. Disputes over water rights and governance frequently arise, exacerbated by external pressures such as pollution from agro-industrial activities, mining operations, and untreated wastewater from local settlements. These factors further compromise water quality, intensifying the challenges faced by smallholder farmers who rely on the river and its irrigation canals. As Muñoz et al. (2023) point out, contamination of these critical water sources threatens the viability of agricultural livelihoods, amplifying the vulnerability of communities already facing resource constraints. A researcher from the Chota Valley (interview, 10 August 2021), who is also a social activist, a member of the Federation of Communities of Northern Imbabura (FECONIC), and a founding member of the Youth Network of the Ancestral Territory, emphasized that Afro-Ecuadorian culture is under pressure from ongoing modernization. He explained, "The water from the river and irrigation channels cannot be privatized; local communities can freely use it without the risk of losing access."

Other interviewer, a 25-year-old female tour operator (25-03-2022) mentioned that efforts to combat environmental degradation have included increasing the representation of Black individuals in public offices. However, these efforts have not been successful. For example, small farmers, who are seeking better economic opportunities, are dissatisfied with the elected Black authorities, feeling that their leadership has failed to address their needs or improve their situation.

According to Ecuador's 2022 Population and Housing Census, the country's total population is 16,938,986. Of this total, 4.8% self-identify as Afro descendant, representing approximately 814,468 individuals (INEC, 2022). Within this group, 11% reside in the Chota Valley, highlighting the region's significance as one of the main Afro-Ecuadorian settlements.

Afro-Ecuadorian community members are now addressing two major concerns at least: (i) land titling and (ii) the demarcation of their area (land/water). Natural

resource extraction industries (timber, palm cultivation, and mining) have systematically contaminated water sources and the environment (Observatorio de Política Culturales de la Universidad de las Artes, 2024).⁵

Collective Claims and Narrative in Water Governance

Following the case study approach outlined in the methodological section, this analysis uses narrative to present the results, drawing directly on the voices of interviewees who offer diverse perspectives on identity, participation, and the governance of land and water in the Chota Valley.

The interviews reveal how claims to ancestral rights are intertwined with community practices and the power dynamics surrounding water access and use. Darwin Minda underscores the urgent need to restore and manage the Chota River as a key factor for sustainability and community well-being, pointing out that tensions with authorities and landowners exacerbate water access challenges (interview 08-10-2021). Similarly, José Chálá (Chálá, 2013b) and Dr. John Antón⁶ highlights the significance of the “cimarron wisdom” [*sabiduría cimarrona*]. Chálá explains the “cimarron wisdom”, as a perspective of analysis that enables the approach to and understanding of the meaning of Afrochoteñidad [being Afroecuadorian from the Chota region] and is transmitted to its community through oral tradition. Also, he promotes respectful social and academic dialogue that values and integrates diverse cultural perspectives. In his master’s thesis on “Representations of the body, discourses, and identity of the Afro-Ecuadorian people”, Antón wrote:

“When we present ourselves in the current socio-political scenario and say we are here, together with you, with our knowledge, with our socio-cultural and historical differences, as a people, we are the ones who know each other and when we say -we- are referring to all socio-cultural and historical diversities ...”

⁵ Observatorio de Políticas Culturales de la Universidad de las Artes. (2024, September 3). *La cultura del Valle del Chota: Entre la visibilidad social y el desarrollo económico*. <https://observatorio.uartes.edu.ec/2024/09/03/la-cultura-del-valle-del-chota-entre-la-visibilidad-social-y-el-desarrollo-economico/>

⁶ Dr. John Antón S. is an Academic researcher in Social Development, and a tenured professor at the Instituto de Altos Estudios Nacionales (IAEN) in Ecuador, is recognized for his publications and is a member of *the Observatorio para la Justicia Afrodescendiente in Latino America* (OJALA-FIU) and *the Instituto para la Investigación y Desarrollo Afrodescendiente* in Costa Rica.

Participation emerges as a cross-cutting theme in the narratives: whether in defending territory or managing water resources, community members emphasize the need to be actively involved in decision-making processes. According to the interviewees, participation reinforces both the implications of power, the community's influence in decision-making, and the value of power, the tangible benefits derived from resource control (Akchurin, 2025).

Finally, the narrative highlights how outdated irrigation systems, as noted by I. Carabali (interview 04-08-2021), combined with weak government management, perpetuate water access inequalities in the Valley. Nevertheless, the collected testimonies consistently emphasize that defending territorial rights and protecting water are essential not only for economic survival but also for preserving Afro-descendant identity and cultural heritage. This collective narrative underscores the pressing need for governance approaches that integrate social, environmental, and cultural dimensions of water management, setting the stage for the following discussion on the future of water governance in the region.

Discussion: Rethinking Water Governance in the Chota Valley

Building on the recognition that Afro-Ecuadorian communities in the Chota Valley are not passive beneficiaries of state policies but active agents shaping their territorial claims and water governance, this discussion examines how they navigate fragmented governance systems, resist exclusion, and assert collective rights through both everyday practices and organized political action that directly confront the severe environmental challenges of the region. This case study thus reinforces the paper's objective: to critically examine how Afro-Ecuadorian communities maneuver governance gaps, assert territorial claims, and adapt to environmental pressures in contexts where hydrosocial relations are deeply shaped by historical marginalization and uneven state presence.

While national regulations prevail, local governance structures, such as Indigenous water councils and municipal systems, play a partial role in implementation, creating a governance dynamic in which local actors navigate between state-imposed policies and decentralized practices. However, this governance remains asymmetric and fragmented, resulting in a system that appears adaptive but lacks meaningful decentralization.

In practice, water allocation policies have disproportionately favored irrigation systems serving commercial sugarcane plantations, sidelining the subsistence and agricultural needs of Afro-Ecuadorian communities in the Chota Valley. This market-oriented allocation effectively commodifies water, reinforcing patterns of inequality by privileging profit-driven actors over local populations' welfare. As Swyngedouw (2009, Page 59) reminds us, "every hydro-social project reflects a

particular type of socio-environmental organization," where water governance is never neutral but embedded in broader power relations, technological choices, and socio-economic structures. The case of the Chota Valley shows how hydro-social configurations, shaped by state policies, market interests, and socio-cultural dynamics, reproduce exclusionary patterns and reinforce governance asymmetries.

This discussion synthesizes the earlier analyses of heritage, governance, and resilience, not to romanticize heritage as a predefined solution but to critically examine how Afro-Ecuadorian communities negotiate, contest, and sometimes resist dominant narratives around identity, collective rights, and environmental adaptation. By adopting this perspective, contradictions surface, for instance, the symbolic recognition of cultural heritage or environmental rights does not necessarily translate into tangible access to water or improved living conditions.

Despite severe environmental stress, including persistent droughts, public and institutional attention to the Chota Valley has remained limited and inconsistent. This neglect has contributed to the legal and political invisibility of Afro-Ecuadorian communities, whose ancestral claims receive little recognition within formal governance structures. While Indigenous groups benefit from stronger constitutional protections that acknowledge their territorial rights and governance systems, Afro-Ecuadorian claims over land and water often remain marginal in national policy frameworks.

Some communities, such as those in San Marcos, Pimampiro, and areas near the Mira River, have adopted adaptive strategies like localized irrigation systems and conservation practices. These efforts are, however, mostly confined to rural areas with small-scale farming and limited access to advanced technologies. In contrast, the upper valley zones near the city of Ibarra and the more commercially developed agricultural regions in Carchi and Imbabura provinces have started incorporating modern irrigation technologies and water management tools, often with support from government programs (hydraulic bureaucracy) as discussed by (Evers & Benedikter, 2009), and NGOs. Yet, these initiatives remain fragmented and lack consistent institutional backing, limiting their long-term impact.

As Antón (2010) and Díaz Polanco (2018) argue, ethnic territories function as semi-autonomous spaces whose governance exists in tension with the state. Community organizations in the Chota Valley conceptualize collective land titling as the foundation of a broader political vision, known as *La Gran Comarca Territorial*. Unlike Indigenous territorial claims often framed around sovereignty and legal recognition, this vision emphasizes land as a living space that sustains cultural reproduction, food sovereignty, and environmental stewardship.

Nevertheless, these claims often arise as band-aid responses or temporary solutions to governance gaps, rather than as genuine pathways to co-governance or shared authority with the state.

Scholars such as Antón and Chalá-Cruz emphasize that for Afro-descendant communities, land is inseparable from culture, identity, and the possibility of development. Yet this framing often attempts to fill governance gaps left by weak institutions, rather than serving as a genuine basis for inclusive, co-produced solutions.

The governance of the Chota River reflects this disconnect. Resource management is narrowly defined by agricultural and industrial interests, largely ignoring the river's cultural, spiritual, and social significance for local communities. Despite recurrent droughts, risk management remains reactive, and access to hydrometeorological data is scarce, undermining both community resilience and meaningful participation in governance processes. This information gap weakens Afro-Ecuadorian communities' bargaining power and embeds their position in policy discussions.

Afro-Ecuadorian resilience is expressed not only through material adaptation but also through cultural practices. Traditional festivals, community rituals, and religious ceremonies act as spaces of memory, identity, social cohesion, and resistance. Far from being merely symbolic, these expressions help strengthen leadership structures and foster social cohesion.

Grassroots organizations, particularly women-led groups like CONAMUNE (Coordinadora Nacional de Mujeres Negras), as well as others representing a diverse landscape of local action, such as the Organización de Mujeres Negras del Valle del Chota, have played a significant role in preserving cultural memory while advocating for sustainable water management. Afro-Ecuadorian organizations, such as those listed in Table 1, have emerged as key actors in promoting community resilience, cultural preservation, and advocacy for equitable water governance amid fragmented institutional support.

Following Fusco and Vecco (2021), heritage should be seen not as a static resource but as a dynamic process that intertwines cultural preservation with practical environmental solutions. Elders and local leaders function as knowledge holders, safeguarding traditional water management practices while adapting them to contemporary challenges. This resilience narrative extends beyond survival; it reshapes the community's vision for the future, rooted in both tradition and innovation.

Efforts to integrate ancestral knowledge into water governance highlight the interdependence of cultural heritage and environmental stewardship, challenging technocratic approaches to water management. Yet, critical reflection reveals that

recognition alone is insufficient. Despite Ecuador's constitutional recognition of Afro-Ecuadorian cultural rights, systemic inequalities and institutional barriers persist, preventing meaningful shifts in power relations or ensuring equitable access to water.

Although Harold Demsetz (1967) famously avoided explaining how property rights emerge, focusing instead on why, they can be understood, in the case of the Chota Valley, through the lens of community agency. His distinction between intentional design [planned actions] and unintended consequences highlights that Afro-descendant claims to land and water are not mere historical legacies but the outcome of deliberate political organizing, collective actions, and ongoing negotiation of ancestral rights at the same time of external pressures e.g., market-driven agricultural expansion (use of technology to large scale sugar or flowers productivity), or institutional neglected and bureaucratic barriers (limited participation in governance processes). Rather than fitting neatly into state-centric models of governance, these claims reflect lived experiences of struggle, adaptation, and active resistance.

Resilience, however, has its limits. Internal migration due to drought (from rural to urban), poverty, and institutional neglect is increasing, weakening community cohesion and eroding the transmission of traditional knowledge. Many young Afro-Ecuadorians leave in search of better opportunities, and the lack of unified political representation exacerbates these challenges. The lack of unified political representation further undermines Afro-Ecuadorian advocacy efforts, often relegating them to fragmented, local struggles unable to impact broader water governance frameworks or policy reforms.

To rethink water governance in the Chota Valley, it is necessary to move beyond sectoral approaches that treat water solely as an economic or technical resource. A more holistic and justice-oriented framework would recognize water as a cultural and ecological asset, central to the identity, wellbeing, and future of Afro-descendant populations. This demands greater inclusion of Afro-Ecuadorian voices in policymaking, investment in participatory environmental monitoring systems, and above all, political will to confront embedded inequalities.

This perspective also calls for a deeper interrogation of the "Rights of Nature" framework in Ecuador. While the 2008 Constitution famously enshrined rights for nature (*Pacha Mama*), in practice, these rights have been applied unevenly, often privileging Indigenous territories or remaining largely symbolic. Afro-Ecuadorian claims over rivers and ancestral lands have seldom been framed within this discourse or recognized under its legal protections. This selective application exposes contradictions within Ecuador's celebrated environmental governance

model, raising questions about who can legitimately claim stewardship over nature and whose rights are prioritized.

As Rich and Moberg (2017) suggest, long-term change depends on cross-sectoral collaboration and sustained stakeholder relationships. However, these must be built on mutual recognition and shared authority, not imposed expertise. Beyond resilience, cultural heritage is both a strength and a contested terrain, shaped by historical injustices, exclusions, and future aspirations. This perspective helps ensure that local voices are reflected in governance processes and that specific needs are addressed in political, environmental, and social responses.

Ultimately, integrating ecological and socio-cultural perspectives on water governance provides a more inclusive foundation for addressing legal invisibility, institutional neglect, and community marginalization. By critically engaging with both the potential and the limitations of the Rights of Nature discourse, policymakers can foster more equitable and sustainable governance in the Chota Valley, ensuring that Afro-Ecuadorian communities are recognized not as passive beneficiaries but as active stewards of their land, rivers, and future.

Conclusion

The case of the Afro-Ecuadorian communities in the Chota Valley demonstrates how community-based governance, cultural values, and traditional ecological knowledge are vital for building resilience against environmental challenges, especially drought. Ancestral memory in the Chota Valley is not a static legacy but a living practice that guides water stewardship, sustains cultural identity, and reinforces community resilience. Elders transmit knowledge about water flows and land stewardship, intertwining cultural heritage with environmental management.

Elders pass down wisdom about seasonal water flow, honoring their ancestors and reinforcing the connection between water, land, and community resilience. The Chota Valley provides a powerful example of how reviving traditional practices can sustain both the environment and the cultural identity of a community, ensuring its resilience in the face of adversity.

The insights emphasize how Afro-Ecuadorian communities in the Chota Valley adapt to environmental extremes, engage in water governance, and redefine their relationship with water and ancestral territories. The experiences and lessons learned show the communities have developed unique, culturally rooted methods to cope with extreme arid and dry conditions.

However, current property rights frameworks inadequately reflect the intertwined cultural, ecological, and spiritual significance of the Chota River. For Afro-

Ecuadorian communities, land and water are inseparable, valued for conservation, livelihoods, cultural practices, and community well-being. Yet, their voices remain marginalized in formal water governance and policy debates.

The study highlights the communities' active participation in water governance, both through formal structures and collective action, including national resistance to governmental policies to defend land and water rights. Nevertheless, challenges persist in balancing collective land titling with immediate economic needs, exposing tensions between communal rights and individual livelihoods.

Moreover, persistent gaps in hydrological data and a lack of local-scale observation systems hinder effective drought management and obscure the contributions of Afro-Ecuadorian knowledge systems. Addressing these gaps requires embracing traditional practices within broader policy frameworks.

Although Afro-Ecuadorians are a minority compared to the larger Indigenous populations, they play a critical role in achieving effective water governance across the basin. Their deep cultural and historical ties to the land and water systems offer invaluable insights into sustainable management.

Furthermore, the case of river management in the Chota Valley highlights the critical role of Afro-Ecuadorian communities' traditional ecological knowledge in managing water resources during persistent droughts. This example stresses the growing debate over observation-based approaches in drought management and reveals gaps in existing data at local scales. Addressing these gaps requires recognizing and incorporating the resilience strategies these communities have long employed, which balance cultural identity with environmental conservation.

In conclusion, advancing water governance in the Chota Valley requires an inclusive policy approach that centers Afro-Ecuadorian communities as key actors in stewardship and decision-making. By affirming their cultural and collective rights, strengthening hydrological data systems, and promoting genuine participatory governance, policies can better reflect the deep interconnection between cultural resilience, environmental justice, and sustainable water management.

It is essential to incorporate other dimensions such as the values of water and the importance of cultural heritage, which are integral to the communities' relationship with their environment. By strengthening these practices and integrating cultural property rights and heritage values into governance frameworks, policymakers can foster more sustainable water management strategies and enhance resilience to future droughts.

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