



**Rift Valley Institute**

MAKING LOCAL KNOWLEDGE WORK

POLICY BRIEF

# GROUNDWATER MANAGEMENT IN THE HORN OF AFRICA: CONFLICT, SCARCITY AND HYBRID GOVERNANCE

*This policy brief is drawn from a study commissioned by the World Bank and conducted by the Rift Valley Institute, in collaboration with the Centre for Humanitarian Change (CHC), on the role of groundwater in addressing fragility and enhancing resilience in the borderlands of the Horn of Africa. The study, carried out between April and September 2023, explored the dynamics related to water, fragility and social exclusion that should inform the development or rehabilitation of rural water supply services (RWSS). Field research was carried out in three study sites in the borderlands of Kenya (Turkana County), Somalia (Hiran Region, Hirshabelle State), and Ethiopia (Borena Zone, Oromia Region) using qualitative methods and expert elicitation.<sup>1</sup>*

## SCARCITY OF RESOURCES, INCLUDING WATER, IS A KEY DRIVER OF CONFLICT

In the borderlands of the Horn of Africa, climate variability and population growth are leading to the increasing scarcity of resources, including pasture and water. This pattern is intensifying vulnerability and fuelling local conflict, which is being exacerbated by weak governance and political marginalization.<sup>2</sup> Pastoralist livelihoods are highly vulnerable to climate variation and this can be a driver of conflict when shared resources become limited or contested. Increasing droughts, linked to climate change, are forcing pastoralist groups to share dwindling water resources more frequently, sometimes causing conflicts. During droughts, competition for water escalates as large numbers of livestock congregate around water sources. This leads to overcrowding and can result in tensions between herders, settled

1 This policy brief was written by Nancy Balfour (Centre for Humanitarian Change [CHC]), based on field research carried out by Edinah Samuel in Kenya (freelance researcher and CHC associate); Faysal Mataan and Abdifatar Yusuf in Somalia (Raagsan); Masresha Taye in Ethiopia (postdoctoral researcher, University of Amsterdam).

2 'From Isolation to Integration: The borderlands of the Horn of Africa', The World Bank, March 2020, <https://elibrary.worldbank.org/doi/abs/10.1596/33513>.

communities and other users. However, conflict between pastoralist groups does not only occur at times of drought. Even during the rainy season, future uncertainty surrounding water and pasture access can drive opportunistic occupation of land and water resources, resulting in competition and on occasion violent conflict.

## COMPETITION OVER WATER CONTRIBUTES TO CONFLICT BUT IS RARELY THE MAIN DRIVER

While access to water often exacerbates long-standing disputes between communities, historic competition at the individual, clan or communal level, may be a more significant conflict driver. Pre-existing tensions between communities, with access to resources often a factor, are also heightened by regional and/or local politics. This may involve political actors favouring one group over another around the distribution of services; exploiting historic conflict for political gain; or supporting externally driven development without consulting local stakeholders. Conversely, the sharing of water resources, overseen by customary institutions, for example in southern Ethiopia between the Gabbra and Borana, is seen as having created conducive conditions for peaceful coexistence and social harmony. The quest for survival in the context of extreme scarcity has played a significant role in bringing communities together across the region. There are historic sharing agreements between neighbouring tribes in Kenya, Ethiopia and South Sudan, as well as between clans in Somalia and at times of scarcity these can be effective ways of securing vital access to resources. There is wide agreement, and examples supporting this view, that groundwater development can contribute towards peace, good governance and community resilience.<sup>3</sup> However, for groundwater development to be effective, humanitarian and development actors need a better understanding of the complex and context-specific fragilities in each area where they operate.

External actors play a role in stimulating conflict when developments in water supply are not informed by effective socio-political analysis. Projects frequently fail to recognize the conflict dimensions – often complex and hidden – involving local communities and access to resources. For example, the location of a new borehole is generally decided by the hydro-geological survey which seldom considers whether the land on which the borehole is drilled belongs to the community for whom the water supply is intended. Failure to understand the complex arrangements of land control and grazing rights in pastoralist areas can also lead to conflict. Politics plays a role in exacerbating conflict, using water as an excuse. Tensions can also be heightened by politicians or clan leaders favouring one group over another with respect to the distribution of services, including water, or supporting externally driven water development without consulting local stakeholders.

Internally Displaced People (IDPs) and refugees, who are present in large numbers in the region, also place additional stress on water supplies. In Kenya, for example, host communities often feel neglected where there is an established refugee camp—tensions have arisen over perceptions of bias in provision of water to refugees.

3 'Pathways To Peace: Addressing conflict and strengthening stability in a changing climate', USAID, January 2002.

## STANDARD MODELS FOR WATER DEVELOPMENT ARE NOT WORKING

In most borderland areas, groundwater development is a combination of communal efforts by NGOs, government offices and private individuals. Groundwater development projects frequently fail to engage *all* stakeholders in consultations. The participation of representatives of all groups, including the private sector and migrants, ensures that the different needs and perspectives are considered and disputes are addressed comprehensively. Communities often feel that external interventions can: override local governance structures; ignore issues around rangeland and migration; and focus on infrastructure construction rather than sustainable management. The result is that standard models for water development are not working.

Climate change is also driving environmental degradation, but most groundwater projects do not consider potential negative impacts on climate change adaptation or the need for conflict analysis. The potential for new or rehabilitated groundwater supplies to impact land use and settlement patterns, and hence undermine climate adaptation and resilience, is poorly understood and seldom assessed in standard development models.

## SYSTEMS OF WATER GOVERNANCE ARE COMPLEX AND DEVELOPMENT ACTORS MUST BE PRAGMATIC IN THEIR ENGAGEMENT

Across the region, there are a number of institutions that are involved in the management of water resources. This includes local and customary authorities; local or national government; Non-Governmental Organizations (NGOs); and the private sector. In reality, these different institutions interact closely in their management of water resources, but not always particularly effectively.

Customary management systems are widespread throughout the region and are usually made up of community elders who have significant influence over water governance. They often negotiate with leaders from other villages for pastoralist members of their communities to migrate to other villages to access water and pasture. Equally, they establish dialogue with cross-border community leaders to find solutions to water conflicts, particularly in inter-ethnic conflict hotspots. Such customary authorities, for example the Boran *Abba Herega*, have been in place for hundreds of years and are grounded in a deep understanding of pastoralist resource use and clan relations. Customary authorities often work in partnership with local government, and NGOs on conflict resolution, including water-related conflicts. However, communities have trust in the customary authorities as the first institutions to be involved in conflict resolution processes, which may then be escalated to higher authorities if they are unsuccessful. In Turkana, Kenya, a wide range of formal and customary institutions are involved in conflict resolution with mixed results. These range from relevant bodies in the county governments to NGOs, community-based organizations, and local community leaders. Political leaders and the county government only intervene when conflict escalates beyond locally based interventions.

Formal institutions—*woreda* water offices in Ethiopia; county water offices in Kenya; district/

local authorities in Somalia—have the official mandate to develop water supplies. However, in practice this role is filled by NGOs, private individuals or companies, or clan/community leaders. The roles and responsibilities for managing water sources are often shared between customary institutions, elected committees and formal institutions. In Kenya, responsibility for provision of water services is devolved to county governments since the passage of the 2016 Water Act. In many counties, there has been increased investment in groundwater development under devolution but there are persistent problems with maintenance of rural water supplies despite the formation of water service providers. NGOs frequently step in to subsidize the operational costs of boreholes, especially during droughts. The main challenges to the effectiveness of the formal institutions are related to budget constraints. In some cases, lack of transport and/or road infrastructure also makes it difficult to reach some areas for which they are responsible. The lack of adequate human resources is likewise raised as a challenge, considering the demanding and exhausting nature of the work, especially in dry seasons.

In Somalia, public boreholes are categorized into two groups: those managed by water user committees, consisting of formal arrangements between clan elders and local administration; and those managed solely by customary institutions. The committee responsible for managing public boreholes with the involvement of clan elders and local administration represents a collaborative effort between these two entities. The remaining boreholes and wells are managed by traditional elders and respected individuals in the community. They work closely with an appointed water committee and collaborate to provide fair access to water for the population. In this context, customary institutions have more control over the water supply and management of public boreholes than formal (government) institutions.

Water development actors often aim for a community management model but are generally not clear about what community ownership or management really means, what it looks like in practice and whether it is feasible in fragile areas. The realities of fragility and the need for a more consensual, hybrid form of water governance needs more attention during project design.

## **PRIVATE SECTOR HAS A ROLE TO PLAY BUT REGULATION IS NEEDED TO ENSURE ACCESS FOR ALL**

Privately or clan-owned boreholes are the norm in Somalia, and this is a developing trend in Kenya and Ethiopia, as well. In Somalia, water is always an economic rather than a social good and everyone is expected to pay for it—boreholes are often owned by private individuals or families and are operated for profit, largely for the benefit of their own clan. Local business are generally seen as handling water services and conflicts more effectively, given their financial incentives to do so. However, during dry seasons when water is scarce, the cost of water increases significantly. This affects water access for those who are unable to afford it. In Kenya, there is a trend towards privatizing and commercializing larger groundwater water supplies. While there may be no intentional discrimination in commercially run boreholes, economic disparities can still result in uneven access to water resources and without effective regulation, water service providers can exploit scarcity by inflating prices. Development of boreholes without establishing pro-poor tariffs and effective regulation can result in reduced water access for the most vulnerable individuals.

## WOMEN, YOUTH AND MINORITY CLANS ARE MARGINALIZED IN DECISION-MAKING

Women play a central role in fulfilling the water needs of their families and communities. This includes physically demanding and time-consuming work fetching and carry water supplies over long distances, sometimes leaving them vulnerable to sexual and gender-based violence. Despite these hardships, and their intimate involvement in water-sourcing, they have little involvement in decision-making around water management, which is dominated by men, particularly within customary systems. Youth are also seldom involved in the management of water supplies. This is largely because they are rarely selected by the community or NGOs to be part of a water committee or WUA/WUC (water user association/water user committee). Despite the important role played by young men in developing and maintaining traditional water sources, they have no say in decision-making around how these are managed or how the water is shared. Similar marginalisation occurs in areas where water supplies are shared by multiple clans, the minority clan will frequently be excluded from management committees and have little or no say in decisions around water sharing.

## RECOMMENDATIONS

These recommendations are aimed at policymakers and development/humanitarian actors engaged in groundwater development in the borderlands of HoA. The intention is to change the approach to groundwater development to reduce the risk of increasing conflict and fragility.

### **CONSIDER CONFLICT DYNAMICS, OWNERSHIP AND CONTROL MORE CAREFULLY IN PROJECT DESIGN.**

While improving access to water resources can contribute to a reduction of water-based conflicts, development actors should also:

- Pay more attention to understanding and working with conflict dynamics, politics and resource ownership, control, and governance patterns around target water sites.
- Cooperate with a wider range of actors to maximize collective action on conflict resolution and resilience building, develop deeper knowledge of the context and jointly address issues.

### **DEVELOP MORE FLEXIBLE GOVERNANCE INVOLVING BOTH FORMAL AND INFORMAL INSTITUTIONS IN WATER MANAGEMENT.**

Customary practices on intercommunal cooperation and shared water resource use tend to be undermined by formal systems. To improve the relationship between the two, development and humanitarian actors should:

- Ensure that governance systems reinforce the complementary strengths of both formal and informal institutions. Customary institutions are effective at conflict resolution and enforcing rules around water use and access. Formal institutions are better suited to day-to-day management roles, but only when supported by a trusted local authority.
- Identify existing cultural and/or community structures and mechanisms that can be used or strengthened to develop a system for water management that is aligned with the localized context, inclusive and owned by the community. This may include strengthening women's and youth groups in particular.
- Strengthen empowerment of local institutions, women and marginalized groups through deeper decentralization of governance while encouraging more inclusive decision-making, especially to address water insecurity risks for women.

## **CONSULT AND ENGAGE MORE WIDELY WHEN DEVELOPING WATER PROJECTS.**

Groundwater development projects frequently fail to engage all stakeholders in consultations and consequently do not consider the needs of all users. To ensure this happens development and humanitarian actors should:

- Engage and consult with a broad range of water users, including: women, youth, minority groups, IDPs and refugees. Also include wider stakeholders such as private water vendors, landowners and migrant or nomadic households.
- Ensure the full engagement of all stakeholders throughout the process of implementation and beyond – critical for local ownership and success.
- Make agreements on water sharing in advance of implementation when consultation reveals multiple users or communities with rights to water at the selected site. Or consider developing more than one water supply to ensure access by all groups. Consider abandoning sites considered to be problematically contested.
- Establish policies and guidance that clearly outline the procedures and steps to be followed when implementing new water projects, along with by-laws for the operation of the water supply.

## **MAKE WATER-SHARING AGREEMENTS CLEARER AND MORE EQUITABLE. PRIORITIZE ENFORCEMENT.**

Agreements on resource-sharing are crucial to ensure fair distribution and usage of water resources both within and between communities. To strengthen these agreements, development and humanitarian actors should:

- Ensure water-sharing arrangements are clearly defined and agreed upon by all parties to prevent future conflicts.
- Establish and uniformly enforce strong penalties for offenses against water-sharing agreements. These should be included in the water-sharing agreements.

## **INCREASE CLIMATE RESILIENCE IN WATER PROJECTS.**

Groundwater development does not always produce resilience outcomes. There are some pre-conditions that are required for genuine resilience building in fragile areas. These include: putting in place robust operations, maintenance and management systems; and minimizing environmental impacts. To ensure resilience outcomes water actors should:

- Focus on rehabilitation rather than new borehole development.
- Understand why water supplies failed and resolve conflict, sustainability or environmental issues before agreeing to rehabilitation.
- Fully assess environment and social risks of new water development.
- Support legislation and regulatory capacity that enables selected strategic groundwater supplies in fragile areas to be designated for use only as a contingency and only opened in extreme drought conditions in consultation with customary institutions.

## **ENSURE WATER DEVELOPMENT IS CONFLICT SENSITIVE AND CONTEXT SPECIFIC.**

Externally driven projects frequently fail to anticipate, or acknowledge, complex and often hidden conflict risks. To improve conflict sensitivity of projects development and humanitarian actors should:

- Conduct nuanced context analysis to understand the functions, motives and trends of conflicts with different levels of stakeholders, consulting widely with local community.
- Ensure equal access to water resources between refugee and host communities by adopting multi-village level water supply systems to extend services to communities left behind.
- Establish strategic water systems along migratory routes with formalized local institutional arrangements to coordinate access and management.
- Incorporate indicators on conflict, women's empowerment and peacebuilding into monitoring platforms, with attention to the need for project teams to demonstrate how they are using the analysis of this data to improve outcomes for communities in fragile areas.
- Incentivise institutions responsible for water service delivery to continue to analyse, monitor and respond to conflict and governance factors beyond completion of construction of the infrastructure.

The Rift Valley Institute works in Eastern and Central Africa to bring local knowledge to bear on social, political and economic development.

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