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Are new water supplies in the Horn of Africa drylands the solution for pastoralists' resilience - or part of the problem?

New SPARC research in Ethiopia and Kenya should change perceptions about how water development is affecting pastoralist communities.

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In recent years, parts of the Horn of Africa have seen large investments in the water, sanitation and hygiene sector, or 'WASH' as a way to build resilience to droughts. In Kenya alone, investments by civil society organisations increased by over 200% between 2017 and 2019, with a significant proportion focusing on drylands.

WASH investments come in many forms and shapes. They include the drilling of new boreholes and rehabilitation of old ones, installation of diesel and solar power systems, water resource management, water trucking, improved sanitation and 'capacity building'.

For many development actors, the premise is that WASH investments such as these enhance the resilience of dryland communities against shocks, including climate-induced shocks such as drought.

But are investments in new water supplies in the drylands a solution, or part of the problem?

Ongoing SPARC research in Marsabit, Northern Kenya and the Somali region of Ethiopia unpacks some nuances around water development. Interviewing community members, resource managers, elders, and both governmental and non-governmental individuals who are actively engaged in water development led us to striking findings. While the establishment of new water supplies has generally enhanced people's access to water,

overall these new investments have eroded – rather than enhanced – the resilience of pastoral communities.



Camels drinking from a trough. Credit: Masresha Taye.

Settlement and depleting resources

First, water supply systems, including deep boreholes, have led to increased settlement in areas which pastoralists traditionally reserve for dry-season grazing. Discussions with communities revealed that, while new water supplies have enhanced access to water, particularly for women and children who are designated water collectors for the family, they have also attracted other communities who frequently access these resources. Overuse of these crucial ‘fallback’ grazing areas – which pastoralists reserve for livestock in non-rainy seasons – has led to overgrazing, increasing pastoralists’ exposure to drought. Settlement has also affected the pasture reserves and seed banks around villages where water supplies are installed.

Moreover, the frequent movement of large numbers of livestock has created tension and multiple incidents of conflict between host and incoming communities. Local communities view water points as vulnerable targets for livestock raids, which heightens their sense of insecurity.

In many cases, communities shared with us that they had not been adequately consulted about the new water sources, and their unpopularity has led to backlash. In one area, due to the absence of community consultation, a civil society organisation was prevented from installing power to a borehole by the community who thought doing so would open up the

area to new settlements. We also observed cases of water sources being destroyed by local communities, who feared such developments would attract outsiders to come and settle.

Overlapping water management regimes

Secondly, water developers' failure to adequately integrate traditional water management structures undermines the success of projects.

Among Kenyan Borana communities, for instance, there is a person responsible for managing community water resources in ways that ensure cleanliness and fair access to all community members, including those migrating from other regions. This person, known as the *aba erega*, still helps manage water supplies today, but they have been overshadowed by newer Water Management Committees, which have become a key condition for partners investing in new water supplies.

The role of the Water Management Committee includes collecting fees that ostensibly go into repairing and maintaining new water supplies. However, most of the water supplies we visited were described by communities as highly unreliable, often breaking down a few months after they have been installed. The result has been widespread contestation among water users, who blame committee members for embezzling community funds while overseeing water systems that do not serve them when they need them most. Due to the high unreliability of many water systems in these areas, communities revert to walking long distances to access water, heavily impacting human and animal health, particularly during drought. By contrast, traditional water supplies run by indigenous water management appear to be much more reliable.

Poor quality

The third key issue which SPARC research uncovered is the poor quality of most of the new water supplies. In many areas, communities stated that they experience severe diarrhoea and stomach pains when they consume water from some boreholes because of high salinity, which affects both the people and the livestock that rely on them. The result is that water sources are often not used. In Ethiopia's Somali region, for example, the government has developed deep boreholes in areas previously devoid of water supplies – but after initial enthusiasm, pastoralists have switched to traditional water sources due to health concerns.

The issue with salinity is recognised by government water offices, and some actors have attempted to address this challenge by installing desalination plants. However, possibly due to their complex nature, the desalination plans are not operating effectively, with one community contending that their plant worked well for a short time, before starting to discharge water that was even more saline.

Reimagining water resilience in the drylands

The provision of clean water for people and livestock is critical for the resilience of dryland communities. Yet the current approach of free-for-all investment focused only on the number of new water supplies and number of people reached often serves to undermine, rather than enhance, pastoralists' resilience to shocks.

What does effective pastoralist water development look like? Our research suggests some ways forward. Efforts should be made to adequately integrate traditional governance mechanisms in the management of water supplies; failure to do so enhances social

fragmentation and conflict. And urgent action needs to be taken to desalinate the toxic water that communities in these regions continue to consume every day, and improve desalination technologies so they are easier for communities to repair themselves.

Perhaps most importantly, development actors must acknowledge that mobile pastoralism remains the key adaptation strategy for pastoralist communities in the Horn of Africa. Water development projects must take the threats of settlement around water sources, and its attendant problems, seriously if they want to contribute to building resilience in the drylands.

This blog is part of SPARC's series: 'Water and resilience in pastoralist drylands'. It is based on SPARC-funded fieldwork conducted by the Centre for Research and Development in Drylands (CRDD) in collaboration with the Centre for Humanitarian Change and SPARC partner organisations. The study will be published later in 2024.



Community members trying to get water directly from a storage tank. Credit: Jackson Wachira/Centre for Research and Development in Drylands.

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