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Community-Based Water Management in Rural Kenya

July 23, 2017

Mandy Lee

Introduction

Access to safe, reliable, and affordable water remains a major challenge for many communities and households across Kenya, and this challenge will likely be exacerbated by the impacts of climate change and rapid population growth in coming decades. A diversity of approaches is needed to protect and enhance livelihoods that are vulnerable to environmental changes. In contrast to significant foreign aid projects and non-profit involvement in Kenya, community-based development acknowledges the ways in which Kenyan communities themselves are best suited to prioritize, design, and guide development solutions. This article seeks to identify the benefits of a community-based approach for sustainable water management in rural Kenya, as well as explore the role of outside actors under this framework.

A useful starting point for thinking about community empowerment is the concept of asset-based community development (ABCD). Developed by John McKnight and John Kretzmann at Northwestern University, ABCD is a framework for identifying the resources and potential within communities. Throughout the 1950s and 1960s, non-governmental organizations (NGOs) operating in Africa assumed a needs-based approach, which defines poverty as the absence or lack of the basic elements required for human survival.¹ Over time, the needs-based approach can become self-perpetuating, encouraging a reliance on outside experts and funding to “discover” and remedy problems in a given community.² Rather than focusing on the needs or deficiencies of a place, ABCD emphasizes that community assets are the key building blocks in effective, long-term development efforts. Community assets may include: “the skills of local residents; the power of local associations; the resources of public, private and non-profit institutions; the physical infrastructure and space in a community; the economic resources and potential of local places; and the local history and culture of a neighborhood.”³ As opposed to the top-down development model facilitated by outsiders, local residents design and implement solutions that leverage existing assets and build future assets. In many ways, ABCD reaffirms the “‘self-help’ processes by which communities in Sub-Saharan Africa have historically and culturally been their own first investors.”⁴

¹ Cormac Russell and Ted Smeaton, “From Needs to Assets: Charting a Sustainable Path Towards Development in Sub-Saharan African Countries” (presentation, Global Sustainable Development Conference, 2009).; Sebastian Mathews, “Asset-Based, Community-Driven Development (ABCD) in South Africa: Rebuilding Communities from the Inside Out” (presentation, University of Johannesburg Centre for Small Business Development Conference, 2013).

² Russell and Smeaton, “From Needs to Assets.”; Terry Bergdall, “Reflections on the Catalytic Role of an Outsider in Asset-Based Community Development,” *ABCD Institute*, 2012, Accessed January 3, <http://www.abcdinstitute.org/publications/downloadable/index.html>.

³ “Founders,” *Asset-Based Community Development (ABCD) Institute*, 2017, Accessed December 20, 2016, <http://www.abcdinstitute.org/about/founders/index.html>.

⁴ Russell and Smeaton, “From Needs to Assets.”

By exploring the context of development and water management in Kenya, it becomes clear that asset-based community development is an important model to help expand clean water access to underserved consumers.

Water Management Arrangements in Kenya

Kenyan government and civil society entities have long been committed to ensuring that water is available, accessible, adequate, safe, and affordable for all citizens. However, the country struggles with physical and economic water scarcity.⁵ Four-fifths of the country is arid or semi-arid and prone to drought, and many areas are unable to take advantage of water resources that could help improve livelihoods due to lacking investment.⁶ According to the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, an estimated 36.8 percent of the total population lives without access to an improved water source.⁷ In rural areas, access has increased steadily since 1990, reaching 56.8 percent of the population by 2015. On the other hand, access has been relatively higher but steadily decreasing since 1990 in urban areas, dropping to 81.6 percent of the population in 2015. In order to achieve higher efficiency, expanded access, and improved service quality, Kenya has joined many other countries in pursuing a form of water privatization through the commercialization of public water entities.

With the imposition of structural adjustment programs by the World Bank and IMF in the 1980s in sub-Saharan Africa, privatization became a major policy tool intended to eliminate weak state enterprises and enhance free markets.⁸ The potential benefits of water privatization include expansion of services to more users, cost savings, enhanced quality and performance, incentives to conserve water, encouragement of private financing, and promotion of technology transfer.⁹ Though the level of private infrastructure investment generally failed to meet expectations in sub-Saharan Africa during the privatization wave, Kenya has pursued a liberalization scheme that has partially shifted water management to the private sector since 2002.¹⁰

The Ministry of Water Development, now called the Ministry of Water and Irrigation, was formed in 1963 to oversee water resources and develop water policy. It implemented water projects on a “self-help” basis in which local communities maintained control.¹¹ Community participation in water management expanded in the 1980s, spurred by the growth of self-help community organizations, especially in rural areas, and the *harambee* spirit of working together

⁵ Tove A. Larsen et al., “Emerging Solutions to the Water Challenges of an Urbanizing World.” *Science* 352, no. 6288 (2016): 930.

⁶ Kenneth O. Nyangena, “Privatization of Water and Sanitation Services in Kenya: Challenges and Prospects,” *Africa Development* 33, no. 4 (2008): 121.

⁷ “Data,” *World Bank*, 2016, <http://data.worldbank.org/indicator/SH.H2O.SAFE.ZS?locations=KE>.

⁸ Kate Bayliss and Terry McKinley, “Providing Basic Utilities in Sub-Saharan Africa: Why Has Privatization Failed?” *Environment* 49, no. 3 (2007): 26.; Nyangena, “Privatization,” 118.

⁹ R. Quentin Grafton, James Horne, and Sarah Ann Wheeler, “On the Marketisation of Water: Evidence from the Murray-Darling Basin, Australia,” *Water Resources Management* 30, no. 3 (2015): 923-924.; Owiti A. K’Akumu, “Sustainability Prospects for Water Utilities Privatization in Kenya,” *International Journal of Technology Management & Sustainable Development* 5, no. 3 (2006): 272-273.; Nyangena, “Privatization,” 128.

¹⁰ Naren Prasad, “Privatisation Results: Private Sector Participation in Water Services After 15 Years,” *Development Policy Review* 24, no. 6 (2006): 669-670.; Bayliss and McKinley, “Providing Basic Utilities,” 26.

¹¹ Nyangena, “Privatization,” 118.

fostered by the government.¹² By 2000, approximately 30 percent of rural Kenyans gained access to safe, reliable water through the work of small, community-based water systems. National water policy was revised in 1999 to establish municipal water and sewerage departments (WSDs) that would be responsible for supporting localized water services.¹³ Although subject to major political interference and competing claims to management and authority, WSDs in municipal governments were, at least in theory, accountable to local people through elections.

Beginning with the Water Act of 2002 and the subsequent Transfer of Water Services Plan, the Kenyan government adopted a water privatization scheme that maintained public ownership but commercialized services through the adoption of private-sector business practices, such as market pricing.¹⁴ The Act developed the Water Resources Management Authority to generally oversee and regulate allocation of water resources. In this system, the Water Services Regulatory Board (WSRB) issues licenses to and sets pricing guidelines for Water Services Boards (WSBs), which are local and regional state institutions with ownership of water infrastructure. WSBs are handpicked by the local water Minister, allowing significant personal discretion. The WSBs in turn rely on Water Service Providers (WSPs) to operate water infrastructure as their agents.

Although this legal framework does not guarantee water as a basic right to all, it includes a statement recognizing water as a human right not to be subordinated to the dictates of economic principles.¹⁵ In order to ensure public welfare, the Water Services Trust Fund extends water services to those that are not financially or geographically favored. It does so by drawing upon public and non-public funds, such as those from development partners. In addition, the Water Appeals Board adjudicates appeals of those aggrieved by the decisions of actors in the water economy. To ensure public participation, the Water Act calls for a National Water Services Strategy that enables underserved communities to express their needs; National Monitoring and Information Systems to manage and publicize information on water services; the formation of Catchments Area Advisory Committees; and public consultation on water-related decisions.¹⁶

Major Challenges for Water Management

To understand some of the major challenges to effective and equitable water distribution, it is necessary to examine the state of water governance, both formal and informal, in Kenya. There is a lack of coordination and data sharing between government bodies; inadequate monitoring and enforcement of water quality laws; insufficient technical capacity for water quality testing in rural areas; scarce financial resources; and inadequate administrative and technical management over water systems.¹⁷ Government appointments based on political connections rather than merits and competency can lead to corruption, manipulation, restricted

¹² Calvince Onditi, "Community Water Supply Management Case Study: Nyasare Water Supply Association in Migori County" (B.S. dissertation, University of Nairobi, 2015), 2.

¹³ K'Akumu, "Sustainability Prospects," 272.; Nyangena, "Privatization," 119.

¹⁴ K'Akumu, "Sustainability Prospects," 274.

¹⁵ *Ibid.*

¹⁶ *Ibid.* 275.; Nyangena, "Privatization," 122-123.

¹⁷ Georgja L. Kayser et al., "Drinking Water Quality Governance: A Comparative Case Study of Brazil, Ecuador, and Malawi," *Environmental Science & Policy* 48 (2015): 186.; Larsen et al., "Emerging Solutions," 929-930.

autonomy, job insecurity, and uncertainty in water institutions.¹⁸ In Kenya, these challenges are compounded by rapid population growth, urbanization, political instability, unemployment, and ever-increasing water demand across many sectors.¹⁹ Lastly, there is low awareness of water management law, little enthusiasm for partnering with civil society organizations, insufficient expertise to negotiate with private companies, and water loss from leakage and illegal diversion.²⁰ Public water utilities too often find themselves in a vicious cycle of deteriorating infrastructure, high system losses, high costs, low revenue, and low-quality services in recent decades.²¹

Governance can also fail at the household and individual level. The capability of poor households to connect to water can be undermined by fee policies, transaction costs, housing and residency status, insecure water supply, and perceptions of water quality.²² A culture of nonpayment for water services is prevalent in rural settings, as well as some urban areas and even among some government entities.²³ In the end, governance failures can create disincentives both “for the water supply utility to connect poor households and for poor households to choose to connect to the water supply system.”²⁴

Successful policy implementation depends on alignment of objectives of stakeholders and the degree of trust between them. However, the failures of government efforts, the rise of privatization, and a systemic bias against the poor create a sense of fear, distrust, and resentment.²⁵ In a model of distributive justice, the water system should seek to provide the greatest benefit to the least advantaged, rather than hoping that benefits will eventually trickle down to the poor.²⁶ Instead, the decision-makers, influencers, primary beneficiaries, and corporate actors in water policy are mainly men, and further divergences occur relating to class, ethnicity, wealth, political voice, age, education, and location.²⁷ Women and children are the most vulnerable to unintended consequences, yet the most constrained to participate in the economy and policymaking.

Across sub-Saharan Africa, the rural water sector remains particularly underdeveloped. Rural areas typically have lower access to financial and technical resources and greater problems collecting data, coordinating with national actors, carrying out maintenance and treatment, and

¹⁸ Ernest Nti Acheampong, Mark Swilling, and Kevin Urama, "Sustainable Urban Water System Transitions through Management Reforms in Ghana," *Water Resources Management* 30, no. 5 (2016): 1835-1849.; Nyangena, "Privatization," 125-127.

¹⁹ Emmanuel Manzungu et al., "Bulk Water Suppliers in the City of Harare-An Endogenous Form of Privatisation of Urban Domestic Water Supply in Zimbabwe?" *Water Alternatives* 9, no. 1 (2016): 57.; Abu Shiraz Rahaman, Jeff Everett, and Dean Neu, "Trust, Morality, and the Privatization of Water Services in Developing Countries," *Business and Society Review* 118, no. 4 (2013): 561.; Larsen et al., "Emerging Solutions," 928.; Nyangena, "Privatization," 125.

²⁰ Nyangena, "Privatization," 125.

²¹ Bayliss and McKinley, "Providing Basic Utilities," 28-30.; Prasad, "Privatisation Results," 686-688.

²² Karen Bakker et al., "Governance Failure: Rethinking the Institutional Dimensions of Urban Water Supply to Poor Households," *World Development* 36, no. 10 (2008): 1891.; Maggie A. Montgomery, Jamie Bartram, and Menachem Elimelech, "Increasing Functional Sustainability of Water and Sanitation Supplies in Rural Sub-Saharan Africa," *Environmental Engineering Science* 26, no. 5 (2009): 1019-1020.; Larsen et al., "Emerging Solutions," 930.

²³ Kayser et al., "Drinking Water," 191-193.

²⁴ Bakker et al., "Governance Failure," 1893-1894.

²⁵ Rahaman, Everett, and Neu, "Trust, Morality," 568.; Nyangena, "Privatization," 126.

²⁶ Rahaman, Everett, and Neu, "Trust, Morality," 553.

²⁷ Ibid 564.; Lydia Osei et al., "The Paradox of Water Accessibility: Understanding the Temporal and Spatial Dimensions of Access to Improved Water Sources in Rwanda," *Journal of Water Sanitation and Hygiene for Development* 5, no. 4 (2015): 553-564.

learning from peers.²⁸ Like the most disadvantaged urban areas, rural areas also struggle with monitoring and enforcement of water standards due to insufficient resources and training.²⁹ A clear bias for urban populations is evident in the separation of services, with more private sector participation in urban areas and government provision to rural areas.³⁰ To combat low rural water access, NGOs funded by international sources have multiplied and helped build water infrastructure.³¹ Unlike in cities, where informal actors fill gaps in service, government-by-NGO has become a growing trend in rural areas, sometimes pressuring local governments to mimic NGO approaches for local participation and accountability.³² Through their position of influence, NGOs have made governance of water service provision more complex and intertwined by blurring the lines between policymaking and implementation roles.

At times, there are mismatches between the priorities of county governments and the needs of the poor. A study of all county-level water policy choices revealed that the water budget consistently ranks fourth after health, transport, and education.³³ County water ministries believe the fair tariff for water in rural areas is 29 percent higher than in urban areas, while the fair level of provision is 12 liters lower per person per day (at just 31 L/person/day) than for urban dwellers. Most counties prefer to separate the responsibilities for water services, sanitation, and resource management, despite the interconnected nature of water problems. About 40 percent of counties believe consumers should pay the full cost of water provision, and 43 percent of those in favor of subsidies do not believe it is the county government's financial responsibility. About 30 percent of county water ministries favor private sector involvement in water, and 70 percent do not consider community management to be appropriate for rural areas. In addition to this place-based variation in government views, the needs of communities can be subject to the whims of election cycles and their relative political influence within a county.

Performance of Privatized Water

Water privatization is often seen as a central area of debate regarding water solutions in developing countries. Thanks to a wealth of research beginning in the 2000s, scholars have come to agreement that privatization of water theoretically should but does not always lead to improved performance in terms of profitability, productivity, efficiency, and service quality.³⁴ In fact, private sector participation has been shown to negatively affect performance in some countries through raising the cost of capital, reducing long-term investment in infrastructure

²⁸ Kayser et al., "Drinking Water," 191.; Montgomery, Bartram, and Elimelech, "Increasing Functional Sustainability," 1018.; Osei et al., "The Paradox of Water," 553-564.

²⁹ Kayser et al., "Drinking Water," 191-192.

³⁰ Acheampong, Swilling, and Urama, "Sustainable Urban Water," 1849.; Rahaman, Everett, and Neu, "Trust, Morality," 558-561.

³¹ Jennifer N. Brass, "Blurring Boundaries: The Integration of NGOs into Governance in Kenya," *Governance* 25, no. 2 (2012): 209.

³² Kayser et al., "Drinking Water," 190.; Rahaman, Everett, and Neu, "Trust, Morality," 560.

³³ Johanna Koehler, "Water Policy Choices in Kenya's 47 Counties," *University of Oxford*, 2016, http://www.smithschool.ox.ac.uk/research-programmes/water-programme/Policy%20Brief_Water%20Policy%20Choices_JKoehler_Feb2016.pdf.

³⁴ Colin Kirkpatrick, David Parker, and Yin-Fang Zhang, "An Empirical Analysis of State and Private-Sector Provision of Water Services in Africa," *The World Bank Economic Review* 20, no. 1 (2006): 143-144.; Godwin K. Vondolia and Francis Mensah Asenso-Boadi, "Private Sector Participation in the Provision of Quality Drinking Water in Urban Areas of Ghana: What Do Households Want and Can Afford?" *South African Journal of Economics* 84, no. 2 (2015): 245-246.; Bakker et al., "Governance Failure," 1893.; Larsen et al., "Emerging Solutions," 932.; Prasad, "Privatisation Results," 672.

repair and replacement, and increasing corruption.³⁵ Partial privatization in Kenya has been accompanied by a lack of commitment to low-income consumers, inequity in the quality of service based on the ability to pay, and service cut-offs.³⁶

A survey of households in the city of Kisumu paint a vivid example of the limitations of Kenya's privatization solution thus far. As of 2010, the survey revealed that only 25 percent of households in Kisumu, Kenya's third largest city, access the World Bank's minimum recommended daily requirement, which is 50 liters per capita for drinking, cooking, and personal hygiene within a reasonable distance from the home.³⁷ Low- and middle-income households generally access less than 50 percent of the basic water requirement.³⁸

It has become clear that water pricing and privatization does not necessarily improve the poor's access to clean water in Kenya, unless it is accompanied with good governance, sufficient financing, equitable pricing and distribution policies, and participatory approaches. Despite the immense challenges to clean water access and the flaws of privatization, certain steps can be taken to improve access to clean water in Kenya, including the empowerment of community-based water management strategies for more rural areas.

Community-Based Management: A Path Forward

Asset-based community development is an evolution of community development thinking, which was first grounded in a rights-based approach. Generally, to build an enabling environment to promote and protect human rights, this approach to development explicitly pursues accountability, participation, non-discrimination, and attention to vulnerable groups.³⁹ Participatory rural appraisal (PRA), an approach that took hold in the 1970s and 1980s, invites community members to co-design projects, but does not necessarily arise from or result in citizen-led initiatives. PRA can perpetuate the emphasis on needs and limitations and take place alongside "the subliminal belief that outside institutions exclusively hold the expertise, resources, and power to resolve issues."⁴⁰ The sustainable livelihoods approach (SLA) integrates PRA methodologies to ensure the relevance of economic development programs to communities. Introduced in early 1990s, SLA departs from PRA by inviting communities to identify their assets and allies. ABCD expands the conversation beyond economic activities to consider social capital, as well as networks that are inclusive for women and other marginalized groups. Overall, the conversation is moving from carrying out development *for* people or *with* people, to *by* the people themselves.

³⁵ Valentina Okaru-Bisant, "Promoting Private Water Investments and Preventing Corruption and Consumer Risks," *Sustainable Development Law Journal* 14, no. 1 (2011): 2-3.; Bakker et al., "Governance Failure," 1893.; Rahaman, Everett, and Neu, "Trust, Morality," 563.

³⁶ Bayliss and McKinley, "Providing Basic Utilities," 29-30.; Montgomery, Bartram, and Elimelech, "Increasing Functional Sustainability," 1017-1019.; Nyangena, "Privatization," 117.

³⁷ George G. Wagah, George M. Onyango, and Jacob K. Kibwage, "Accessibility of Water Services in Kisumu Municipality, Kenya," *Journal of Geography and Regional Planning* 3, no. 5 (2010): 114.; Vondolia and Asenso-Boadi, "Private Sector Participation," 245.

³⁸ Wagah, Onyango, and Kibwage, "Accessibility," 118.

³⁹ Russell and Smeaton, "From Needs to Assets."

⁴⁰ Ibid.

ABCD is oriented toward citizens and communities as the primary producers of internal development solutions. ABCD draws upon local residents' insights, skills, and resources, thereby increasing the effectiveness of outside support.⁴¹ Typically, ABCD involves participatory and inclusive mapping and planning exercises in which residents locate, connect, and build upon the assets of the community as a whole. Strong social capital results in a greater sense of responsibility towards others (including marginalized groups) and a better likelihood of reaching internal solutions to local problems. Government agencies, NGOs, community-based organizations, faith communities, and businesses can be strong partners in ABCD.

The ABCD approach can still suffer from some of the broader challenges to water management in rural Kenya and unique challenges to community-based approaches. One study of a community water project in Kisayani community in Kathyaka Location, Makueni County, for example, revealed challenges to sustainable water supply, regulatory policy, and local management after 10 years of operation.⁴² Changing rainfall patterns, increasing withdrawals, resistance to water sector reforms, reduced cohesion between community and management, and insufficient supportive external relationships are some of the limitations that this project may share with others like it. Another study of five community water projects in the upper Ewaso Ng'iro River basin of Mount Kenya also points out the pressures of hydroclimatic change and population growth, as well as water inequality and institutional homogeneity across the different water projects.⁴³

Just as the major challenges to water management in Kenya have created a vicious cycle, small adjustments in various areas of water governance can spur a feedback loop that builds effectiveness.⁴⁴ A greater degree of community participation, with the aspiration to reach ABCD, is one such adjustment. In order to build trust, the government and private-sector partners must encourage participatory approaches to better understand local preferences and facilitate knowledge-sharing opportunities between neighboring areas and communities with strong examples of ABCD. The Nyasare Water and Sanitation Company and Makutano Community Development Association are two such examples. While only a handful of publicly-available case studies are considered in this paper, they demonstrate multiple strategies for successful long-term community water projects taken to scale.

Case Study: Nyasare Water and Sanitation Company

Nyasare Water and Sanitation Company (NYAWASCO), formerly the Nyasare Water Supply Association (NWSA), offers a strong model of ABCD principles in action. The project was designed and is managed by residents of the rural Nyasare community, located along the Nyasare River Valley to the north and west of Migori Town in Migori County, Kenya.⁴⁵ The project was initiated in 1989 largely in response to the catalytic leadership of Reverend Peter Indalo of the local Oyani Christian Rural Service Church, who assisted in the creation of a self-

⁴¹ Mathews, "Asset-Based, Community-Driven."

⁴² Harry Spaling, Geoffery Brouwer, and Jesse Njoka, "Factors Affecting the Sustainability of a Community Water Supply Project in Kenya," *Development in Practice* 24, no. 7 (2014): 797-799.

⁴³ Jampel Dell'Angelo et al., "Community Water Governance on Mount Kenya: An Assessment Based on Ostrom's Design Principles of Natural Resource Management," *Mountain Research and Development* 36, no. 1 (2016): 102.

⁴⁴ Kayser et al., "Drinking Water," 192.

⁴⁵ Onditi, "Community Water," 3.

help group to improve water access and safety.⁴⁶ Residents of Nyasare sought to increase their resilience to water shortages and waterborne diseases. NWSA began official operation in 1994, was designed to serve 10,000 people, and has since expanded to cover more than 30,000 people across rural areas and Migori Town. In response to reforms of the water sector in the new Kenyan Constitution of 2010, NWSA transformed into a water company (NYAWASCO) and is recognized as a community-managed WSP.

The organizational structure of NYAWASCO gives ultimate power to an Assembly of local residents. This Assembly is composed of approximately 1,200 registered community members that enjoy the benefits of the company.⁴⁷ The members can vote at annual meetings, submit proposals, and be appointed to leadership roles within the organization. Members participate in external events, fundraising activities, and direct outreach to the larger community. The Assembly elects members of the Executive Committee every three years, as well as approves all plans and activities of NYAWASCO. Such activities include outreach, tree planting, and participation at the Migori Agricultural Show. The Assembly approves all financial commitments, such as those relating to operations, maintenance, and salaries. Lastly, the Assembly can work with the Executive Committee to engage with the Water Services Trust Fund, the local WSB, and the WRMA to improve services.

⁴⁶ Onditi, "Community Water," 25.

⁴⁷ Ibid 42.

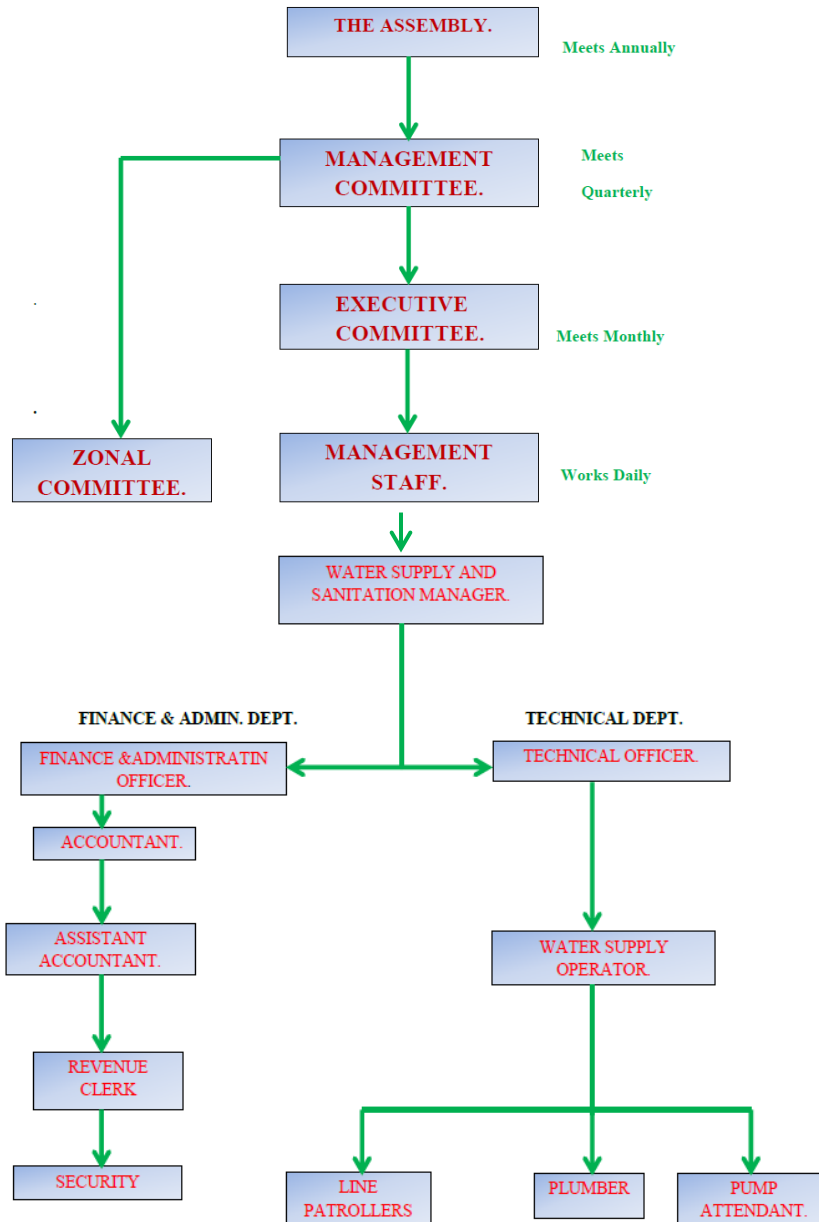


Figure 1. NYAWASCO’s organizational chart reveals its accountability to the Assembly of community members. Source: Adapted from Onditi, “Community Water,” 32-37.

The Management Committee convenes an Executive Committee, Zonal Committee, and Management Staff. The Executive Committee is composed of eight elected leaders, and the Zonal Committee brings together elected representatives from the six zones of the water supply area.⁴⁸ The Zonal Representatives support community mobilization, awareness, implementation, and relay the perspectives and concerns of residents to the Executive Committee. Also at the grassroots level, NYAWASCO established a Communal Water Committee that convenes a

⁴⁸ Onditi, “Community Water,” 43-46.

Catchment Protection Committee and a Water Outlets Committee. These committees take responsibility for the following activities: catchment area land purchase and fencing; monitoring and tree planting in catchment zones; training on sustainable farming practices; and outreach through local associations to raise awareness about catchment area management. To build awareness about catchment protection, NYAWASCO specifically engages with schools, assemblies of local chiefs and elders, and women's groups. Water is distributed at communal drawing points (at a weekly rate), water kiosks (at a rate per cubic meter, half of which is paid to NYAWASCO), or through individual metered connections (at a tiered rate per cubic meter based on total volume). Ground-level management staff, called caretakers, are local residents that are trained and employed by NYAWASCO.

Community participation was a key component for making collective decisions about water sources and pricing. In addition to a borehole, NYAWASCO has developed springs and shallow wells in the community. After community meetings, eight community members voluntarily donated land to NYAWASCO in order to protect and develop springs in exchange for free water supply.⁴⁹ The community was also mobilized to discuss water provision at higher elevations not served by the gravity-based distribution system. NYAWASCO dug five shallow, hand-pumped wells to provide this water, after discussing appropriate solutions and locations with residents of these areas. The community allocated three wells to primary schools and one well to a health center. Community members came to agreement that this water would be free, but these institutions would contribute to maintenance, when needed, conducted by the shallow well committee.

NYAWASCO has major achievements in addition to upholding community governance. Although unprotected water sources are still available to residents, NYAWASCO has helped reduce the prevalence of waterborne diseases like cholera and typhoid, while making the distance to water sources far shorter.⁵⁰ During its operation for more than two decades, NYAWASCO has grappled with enormous challenges that range from water supply seasonality, catchment area degradation, infrastructural vandalisms, unpaid water bills, water quality issues, incapacity to expand water facilities to meet the growing demand, and lack of finances.⁵¹ Nonetheless, the Association has sustained reliable water supply since its inception, and the community has witnessed increased groundwater recharge, vegetation cover, and water table levels.

NYAWASCO has shifted away from an approach that relied heavily on outside assistance. Initially, Reverend Indalo catalyzed the community to leverage outside funding. Through religious ties with an Austrian church, he forged an external link with the Austrian Development Co-operation, which provided funding during the early stages of the project.⁵² Up until 2007, NYAWASCO invited local and international consultants and implementing partners to provide technical and administrative assistance. However, NYAWASCO shifted to full self-management in the past decade, achieving financial stability and greater community participation.

Due to its ongoing success despite its obstacles, NYAWASCO has become a regional role model and collaborator, sharing best practices with a self-help group based nearby in

⁴⁹ Onditi, "Community Water," 28.

⁵⁰ Ibid 57.

⁵¹ Ibid 62-65.

⁵² Ibid 25.

Nyamira County. The group, called the Hopewell-Keroka Alliance, shared a similar path with NYAWASCO, including its founding through a prominent community member, a resident-led approach, and a partnership with a foreign funding partner, in this case a sister community in the United States. The Hopewell-Keroka Alliance is pursuing the creation of a local water company modeled after NYAWASCO.

Case Study: Makutano Community Development Association

The Makutano Community Development Association (MCDA), located in the Ikombe Division of Yatta District, offers a model of ABCD on a larger scale. Spurred by Raphael Masika, a local resident with experience in community-based development, a group of 60 people from neighboring villages met in 1995 to discuss community associations.⁵³ Already having the precedent of community burial societies, the residents registered as a self-help group and then as a community-based organization (CBO) the following year. Also in 1996, the first indigenous philanthropic institution in the country, the Kenya Community Development Foundation (KCDF), began operation. Both MCDA and KCDF committed early on to ABCD principles, working to harness local assets and build the capacity of local people to guide their own development. By 1998, MCDA approached KCDF for a grant to establish an office, hire staff, and conduct training, as well as initiate an in-depth planning process. Over three years, more than 20 villages elected liaisons to work with local consultants and host open meetings with immediate community members. The result was a collective action plan to address various priorities, which has served as the compass of MCDA for more than a decade.

At the foundation of MCDA's structure are local CBOs, village development committees, and general community members. MCDA's membership grew from 10 informal associations to 84 independent CBOs and 210 villages representing more than 77,000 people.⁵⁴ Trained volunteer community mobilizers liaise between communities and MCDA's two staff members, unpaid elected board members, and a volunteer patron.⁵⁵ Each affiliated CBO runs independently, with its own elections and finances, and may initiate or respond to broader MCDA initiatives. The MCDA provides CBOs with technical, coordination-related, or financial assistance. A strong theme in MCDA's work is tapping into local resources. MCDA may distribute larger grants among CBOs, but the CBOs typically provide their own local monetary contributions, labor, expertise, and materials. When outside experts are required, MCDA ensures that local residents receive a comprehensive training on the relevant topic. Moreover, MCDA's operating expenses are funded by membership fees for individual residents, which enables members to vote for their representatives and enjoy preferential pricing for some programs. Rather than pursuing NGO status, MCDA chose to remain a CBO in order to uphold the ownership, engagement, and contributions of members.

⁵³ Halima Mahomed and Brianne Peters, "The Story Behind the Well: A Case Study of Successful Community Development in Makutano, Kenya," *Global Fund for Community Foundations and the Coady International Institute*, 2011, <http://www.coady.stfx.ca/tinroom/assets/file/StoryBehindTheWell.pdf>.

⁵⁴ Ibid.; Mary Nthambi Kisingu, "Factors Influencing Community Based Organizations' Performance in Yatta District, Machakos County, Kenya: A Case of Makutano Community Development Association" (B.A. dissertation, University of Nairobi, 2012), 35.

⁵⁵ Mahomed and Peters, "The Story Behind the Well."



Figure 2. MCDA's organizational chart reveals its accountability to its affiliated CBOs, VDCs, and members. Source: Adapted from Mahomed and Peters, "The Story Behind the Well."

The unanimous top priority identified by residents in the 1998 baseline survey was water. During the planning process, MCDA created a map of 26 future water points.⁵⁶ Since then, MCDA has constructed 9 community-managed dams and 17 sub- service wells, as well as supported supplementary household-level water harvesting. Each of these 26 water points is overseen by a water management committee that is elected by local users and operates as an independent CBO. MCDA assists with management and accounting training, as well as ensures gender equity in committee membership. Similar to MCDA, each CBO covers maintenance costs through an annual or daily user fee. Where communal land is not available, members of the water point negotiate for donated land from the group and volunteer to clear the land. MCDA works with the local authorities to conduct an Environmental Impact Assessment and helps pair CBOs with partners for management and accounting training, planning, design, and funding. In the case of the water points, AusAid and the Irish government through Concern Universal were major donors. Once constructed, water point members rotate in supervising the wells, hire a permanent dam caretaker, and follow their own maintenance plan. MCDA assists with water testing in Nairobi on an annual basis. Most households in the area, whether MCDA members or not, now belong to a water point.

To support this work and MCDA's other projects, KCDF, in alignment with its own practice of matching external funds with local sources, began offering community-level endowment funds. In 2006, MCDA established a community fund that is invested and matched 1:1 by KCDF.⁵⁷ MCDA's members contributed approximately \$6,500, which grew to more than \$23,000 by 2010. Once the fund doubles to \$56,000, a committee of elected members will begin drawing on the proceeds for MCDA initiatives.

MCDA embodies ABCD in multiple regards, including its structure, holistic approach, and vision. MCDA's structure and processes are unique in how they promote distributed

⁵⁶ Mahomed and Peters, "The Story Behind the Well."

⁵⁷ Ibid.

decision-making, accountability, and transparency, which further builds community cohesion, trust, mutual-help behaviors, collective action, and pooling of resources. In addition to its water projects, MCDA is committed to sustainable development across sectors. Among numerous other programs, MCDA has built 162 pit latrines, a 23-kilometer road, a secondary school, and an extensive food security and preservation initiative.⁵⁸ The shared vision for MCDA developed by its members in 1998 set in motion a community effort that has leveraged and nurtured significant social capital.

A study of MCDA and the factors influencing its performance reveals the key role of the operational style and mission developed by community members. Surveys of MCDA and its 84 affiliated CBOs revealed that the mission, organizational competency, political capital, and funding resources all play a major role, accounting for 63.2 percent of the variation in CBO performance.⁵⁹ Performance is considered a CBO's contribution to building residents' access to financial, physical, and human resources, as well as economic opportunities and political power. In particular, organizational mission had the strongest positive relationship with performance. Respondents noted the importance of a clear, specific, and tangible mission statement that reflects clients' needs and is tied to a participatory strategic decision-making process. Organizational competency, which includes staff experience, stable and active leadership, and mutual trust, had the next strongest effect on building an environment that improves CBO performance.

Role of Outside Actors: From Overseer to Catalyst

The ABCD approach does not disregard the importance of outside assistance, but calls for outside partners to play a support role to citizen-led community development.⁶⁰ Often, ABCD does not occur spontaneously within a community. A helpful approach is for outside actors to regard themselves and their work as catalysts for community development. This external stimulus can and should be minimal, to avoid any sense of dependence. Catalysts such as NGOs can help facilitate a process of mapping assets and eventually leveraging external resources, rather than directly implementing solutions.⁶¹ Outsiders can also promote inclusion by helping convene a more representative group of residents, instead of summoning a small number of leaders.⁶² Critically, outside organizations seek to build trust and understanding:

*Catalysts are accountable to local communities. They are there, in some form or another, only at the invitation of the community. But as outsiders, they are upfront about their role and intentions so everyone in can see their purpose and understand their motives. In doing so, a creative sense of 'obedience' to the community is established. Catalysts are consistent: they do what they say they are going to do. They are transparent: they are forth-coming about their actions and are open to being questioned about them.*⁶³

Until the financial capacity of local organizations and governments are sufficient to take over, international funding for water projects will remain critical. Nonetheless, NGOs and

⁵⁸ Mahomed and Peters, "The Story Behind the Well."

⁵⁹ Kisingu, "Factors Influencing Community," 46.

⁶⁰ Russell and Smeaton, "From Needs to Assets."; Mathews, "Asset-Based, Community-Driven."

⁶¹ Russell and Smeaton, "From Needs to Assets."; Bergdall, "Reflections."

⁶² Bergdall, "Reflections."

⁶³ Ibid.

external donors can shift their goals toward community-building and local ownership of development projects. In this way, outside partners can assist with funding and technical expertise, while also increasing trust, communication, and mutual respect.⁶⁴ Outsiders might also have the unique opportunity to attract government attention. In a win-win situation, outside funding for a community could encourage elected officials to also dedicate or match funding and technical assistance to local projects. Therefore, there is higher accountability, a greater diversity of funding sources, and political empowerment of residents.

Meanwhile, the Kenyan government and private water suppliers can also play an important role in catalyzing ABCD. For example, they can set benchmarks for equity and report regularly on them, in order to increase the attention paid to the most vulnerable consumers. In addition to sharing more information overall, the government and private sector can promote shared motives with stakeholders and create room for communities to engage in decision-making.⁶⁵ Instead of applying a uniform pricing system across the country, Kenya could increase flexibility and transparency in matching tariffs and subsidies to the specific economic characteristics of communities.⁶⁶ The government and outside partners can help train local leaders about community water and sanitation governance, as well as offer ongoing support in the areas of monitoring, planning, capacity-building, and specialized technical assistance. Lastly, the government can help communities leverage outside funding, especially through the Kenyan diaspora and innovative international crowdfunding mechanisms.

Conclusion

Given a strong level of engagement, capacity-building, and political will, Kenya can leverage its semi-privatized water system and tradition of community-based projects to make water available, accessible, adequate, safe, and affordable for more underserved communities. NYAWASCO and MCDA provide strong models of ABCD approaches for water management in rural Kenya. By empowering local organizations in other communities, the country can continue to diversify approaches to sustain healthy communities and work to effectively channel limited resources, combat corruption, leverage outside funding, and achieve equitable water systems.

⁶⁴ Peter A. Harvey and Robert A. Reed, "Community-Managed Water Supplies in Africa: Sustainable or Dispensable?" *Community Development Journal* 42, no. 3 (2007): 365-378.; Brass, "Blurring Boundaries," 228.

⁶⁵ Bakker et al., "Governance Failure," 1893-1894.; Nyangena, "Privatization," 128-129.; Okaru-Bisant, "Promoting Private," 11-12.; Rahaman, Everett, and Neu, "Trust, Morality," 552-553.

⁶⁶ Peter A. Harvey, "Cost Determination and Sustainable Financing for Rural Water Services in Sub-Saharan Africa," *Water Policy* 9, no. 4 (2007): 373-391.; Bayliss and McKinley, "Providing Basic Utilities," 31-32.

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