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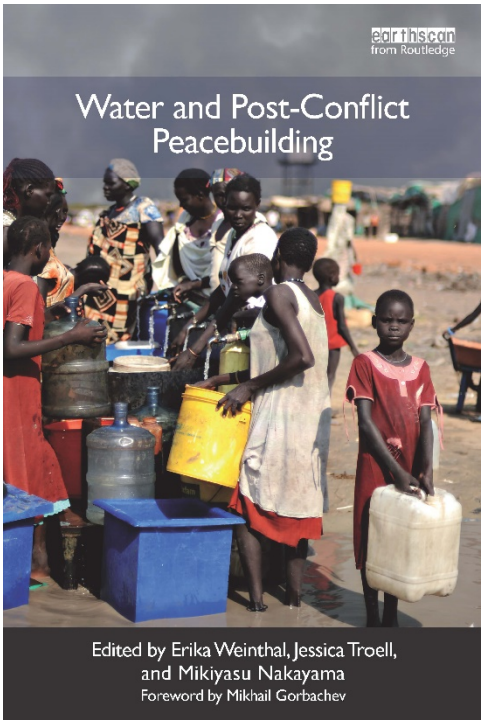

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Thirsty for peace: The water sector in South Sudan

Sam Huston

After more than two decades of civil war in Sudan ended with the 2005 signing of the Comprehensive Peace Agreement (CPA), the then-newly established government of Southern Sudan (GOSS) faced the massive task of providing basic services to an extremely underserved population. This challenge continues for the government of South Sudan.[1] Trying to meet high expectations for peace dividends—including much-needed access to water—in a large and conflict-devastated land with extremely poor infrastructure is an overwhelming task for an emergent government with limited capacity.

The effort has been complicated by a scarcity of data on where the biggest needs are in a region in which almost everyone lacks water for at least part of the year, and only 48.3 percent have improved water access, which is often defined in the South Sudan context as a community well with a hand pump (MOH 2006).

Attempts to provide equitable access to improved water sources—in the form of boreholes, small peri-urban water systems, and household water connections in urban areas—across what was then the southern part of Sudan (now South Sudan) have been further confused by emergencies, including frequent cholera outbreaks and mass displacement accompanying severe intertribal fighting that may have killed up to 2,500 people in 2009 (ICG 2009). These emergencies have diverted attention and funding from the establishment of longer-term systems

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[1] The CPA contained a provision allowing Southern Sudan the right of self-determination. This right was exercised through a referendum held on January 9, 2011, with Southern Sudanese voting for secession. The Republic of South Sudan was declared a sovereign state on July 9, 2011. In this chapter, the term *Southern Sudan* refers to the southern region of Sudan prior to July 9, 2011, and the term *South Sudan* refers to the sovereign state.

and institutional strengthening. Partly as a result, the government systems needed to build and maintain water sector infrastructure have yet to be fully established.

In the eyes of many, improved water access has had and will have a crucial role to play in peacebuilding and calming both North-South tensions and tribal conflict within South Sudan. South Sudan is divided in complex ways. Although efforts by both government and international actors to support its stabilization have had limited success, it is widely accepted that improved water access must be part of the solution.

However, most implementing partners in the sector are concentrating on the Millennium Development Goals for water, sanitation, and hygiene (WASH), which focus not on peacebuilding but on improving public health. This orientation is in line with the 2007 GOSS water policy, which stipulates: "Access to sufficient water of acceptable quality to satisfy basic needs is considered a human right and shall be accorded highest priority in water resources development" (GOSS 2007, sec. 4.1.1).

This approach largely overlooks the provision of water for livestock, which is the most important context for conflict over water. Some attempts have been made to provide water for communities as part of peacebuilding efforts. Given the complexity of competing interests in the region, a wider conceptual framework is needed to address how exactly water-for-peace programs should work. Little research has been done on the links between water and conflict in South Sudan. This lack of readily available information and examples of best practices, and in some cases the lack of detailed understanding of local social realities, have also discouraged practitioners from undertaking peace-oriented water programming, despite the obvious connection between water issues and violence.

CONFLICT-SENSITIVE APPROACHES: SOUTH SUDAN'S WATER SECTOR

When the CPA was signed, access to improved water sources for human consumption in the rural areas of Southern Sudan was estimated at 25 to 40 percent (Sudan Joint Assessment Mission 2004). Getting water to conflict-devastated communities that are vulnerable to a wide range of waterborne diseases was a major priority, which became even more pressing as hundreds of thousands of refugees returned to the region. Even before the CPA, a conflict analysis of Southern Sudan suggested that the acute shortage of water access was not only a humanitarian concern but also a threat to security (Pact Sudan 2002). In fact, local competition over access to scarce water resources and improved water points had contributed to local conflict across Southern Sudan, most infamously between the region's large pastoralist groups (Pact Sudan 2002).

Recommendations from intertribal peace conferences and a variety of conflict analyses have suggested that the lack of access to water for cattle during the height of the dry season is still a major driver of these local conflicts. Lack of

Notes: A – The Hala'ib Triangle is claimed by Sudan and de facto administered by Egypt.
B – The disputed Abyei area; shaded area depicts the Abyei area as proposed by the government of Sudan.
C – The Ilemi Triangle is claimed by Ethiopia, South Sudan, and Kenya, and de facto controlled by Kenya.

water and ample grazing land forces pastoralist cattle camps to migrate further, pushing them into conflict over limited environmental resources with other pastoralist groups and neighboring, sedentary farming communities. Competition between ethnic groups and subgroups has a long history, but in many cases grudges were much worsened by fighting within Southern Sudan during the civil war, which also armed many communities. As a result, cattle raiding and fighting over a water point or other resources frequently ends in a bloodbath, as was seen in 2009 conflicts between the Bor Dinka and the Lou Nuer in Jonglei State.

Ongoing intertribal fighting in large parts of the south has undermined real peace and stymied development. Peacetime has emphasized some problems, in part because herd numbers have increased and it is now possible to move cattle

longer distances. This, together with the return of tens of thousands of people to the south, has created additional burdens on the water resource base in areas distant from large, all-season rivers. Populations in agricultural and more built-up areas have also swollen, putting pressure on the limited number of improved water points in large villages and towns and often increasing local tensions over access.

As stated above, while the importance of water for peace in South Sudan is widely acknowledged, a conceptual framework for how water is related to peace and conflict there has not fully evolved. The GOSS Water Policy of 2007 started its general principles section with the statement, "Water must be a lever for peace and not a source of conflict" (GOSS 2007, sec. 2.3). Yet, as of May 2012, there is still no vision about how this might be achieved, and there has been little research into efforts by nongovernmental organizations to provide water to resolve disputes.

Pact Sudan's Water for Recovery and Peace Program (WRAPP), funded by the Office of Foreign Disaster Assistance of the U.S. Agency for International Development (USAID), was one of the rare programs that consistently targeted water service delivery for peacebuilding, conflict prevention, and stabilization. The approach that WRAPP used entailed sending a representative to local peace conferences to follow any dialogue related to water. These peace conferences, often held in provincial towns and villages with tribal leaders and local officials, sought to encourage dialogue and facilitate a negotiated resolution of grievances. If the outcomes of a peace conference called for increasing access to community water points, WRAPP would offer to build the necessary wells and assist with community training and infrastructure improvements. This approach yielded a more sustainable investment, as communities engaged through the conflict-sensitive approach displayed more willingness to take ownership of the long-term care and maintenance of their water points.

Although the connection between water and peace is widely accepted, it is not surprising that so little has been done in this field, given how many areas still lack basic services. Despite the GOSS attempt to push for a longer-term approach to water development, the water sector in South Sudan has until recently largely confined its approach to basic, and sometimes unsustainable, service delivery. The government and water sector service providers, who still face continuing emergencies, have also been unable to wholly shift from the emergency mind-set that became deeply entrenched during the civil war. The focus of their work has largely been on infrastructure and other physical outputs, rapid responses to emergencies, and overcoming immense logistical challenges to quickly provide potable water. Additionally, international efforts have undermined capacity development, longer-term peacebuilding, and recovery: international organizations sidestep local authorities and traditional leaders by not addressing capacity gaps and by not effectively engaging stakeholders in consultative processes that do not meet their short-term emergency objectives.

With a view to decreasing resource-based conflict, Southern Sudanese politicians and traditional authorities from pastoralist areas have lobbied hard for

both donor and government funding for water for cattle. However, due to financing, implementation, and bureaucratic constraints, most water sector actors have instead focused on drinking water for humans, paying little attention to cattle. Many international donors and implementing partners are constrained by mandates that limit their focus to drinking water for humans. Practitioners have also found that building *hafirs* (water pans) for cattle is extremely expensive and technically difficult, and little progress has been made in this area. Moreover, water providers are sometimes unwilling or unable to do other peacebuilding work, such as encouraging dialogue, that should take place in parallel.

When conflict-sensitive approaches have been applied to the water sector (consciously or unconsciously), two principles have consistently driven water sector decision making: equity and consensus building at the local level. Informally but widely accepted, these two principles are the basis of the conflict-sensitive approach to water programming in the south. Although local authorities, traditional leaders, and implementing partners sometimes interpret these concepts differently, which can be a problem, their use in planning for water point construction has greatly reduced destructive competition over access to a new or improved water point. The provision of new water points in growing villages and towns, for example, without aggravating existing tensions or provoking anger over perceived unfairness, was especially important in the conflict-bruised, fragile, and often-divided Southern Sudan, and continues to this day in South Sudan.

Equity is a significant principle behind macrolevel decision making within the water sector as well as at the community and intercommunity levels. Representatives of regions, states, and counties, as well as local communities, are often of the opinion that their areas are worse off than others. This is witnessed at sector coordination meetings, where local authorities often suggest that their particular region is acutely underserved. Regionalism and tribalism are important aspects of South Sudan's political fragility.

The GOSS was very careful to ensure that government (and, when possible, international) resources were evenly distributed across the ten states of Southern Sudan. This equity principle was often followed to a fault by the GOSS and continues under the government of South Sudan. Extremely high-need and historically underserved areas receive only their quota of limited sector resources. For example, the GOSS ministerial water budget was divided evenly among the ten states. The tendency toward even division of the water sector budget was compounded by a lack of statistics about which areas were really the worst off, and thus the default position was an even allocation that does not target the highest-need regions. This lack of data, combined with insufficient government capacity and the desire to avoid accusations of unfairness, has hindered the development of a system to prioritize water sector investment distribution by need. Instead, the primary goal has been to eliminate potential conflicts within the allocation process.

Consensus building among authorities and communities, usually operating at the local level, is the second primary principle guiding the few organizations applying conflict-sensitive approaches. This is often best illustrated during site

selection for new water points at the county or community level—during which, ideally, local authorities, traditional leaders, peace committees, and community-based organizations allocate sites in a collective, transparent, and collaborative process (Welle, Malek, and Slaymaker 2008). Experience in South Sudan has shown that collective consensus building at the local level has reduced tensions, improved transparency, and improved understanding of the allocation of water points. Besides such peace dividends, consensus building lays the foundation for community ownership, and therefore sustainability, of improved water points. Lack of consensus building before new water points are created has often resulted in local tensions and competition over access, which can be witnessed in hundreds of communities across the south that often received their water points from emergency water programming during the more than two decades of civil war.

Even though the principles of equity and consensus building are often innately understood by South Sudanese, not enough international attention has been placed on using these simple conflict-sensitive approaches to water service delivery. International nongovernmental organizations and UN agencies implementing emergency programming often face short funding cycles and immense logistical challenges, and have ended up implementing water programming where and when they could, based on ease of access and seasonal limitations. They have also often done this work without building sufficient links with government or grassroots traditional leaders.

Lack of coordination between implementing organizations and authorities has also made it difficult for the government to completely understand international agencies' water sector activities. The water sector is extremely complex, and emergency programming is often run in parallel to recovery and development efforts, as local conflicts, floods, and other emergencies emerge. Although the sector's coordination systems have greatly improved since the signing of the CPA, these ad hoc responses have often not been well integrated, and general understanding remains poor.

As South Sudan begins its transition from emergency to recovery, the government will need to be able to better oversee longer-term, sustainable development work. Better government control and understanding are crucial, even though both could hamper the process of local consensus building.

Until now, international agencies working in the water sector have had to address a wide range of development needs, which have often complicated their goals and objectives. Supporting health, livelihoods, economic development, and other goals in such an extremely high-need environment has made it difficult to set priorities and to focus on peacebuilding. As donors move from emergency to development funding, and prioritize water for health clinics, schools, or guinea worm eradication programs, the water allocation process may come to rely less on community decision making, which would make it more difficult to leverage water sector investments for peace with collaborative, transparent, demand-driven, and locally led processes.

FROM RECOVERY TO DEVELOPMENT: ESTABLISHING WATER GOVERNANCE

A significant challenge for the water sector in post-conflict South Sudan remains the establishment of government systems that can provide a solid foundation for water sector investment and sustainability. Increasing government and institutional capacity with respect to the water sector, particularly WASH, is a critical challenge for long-term sustainability.

The capacity of the Ministry of Water Resources and Irrigation and the Southern Sudan Urban Water Corporation has grown since the CPA. However, significantly more progress is needed if these two institutions, which are the foundation for sustainable investments in the WASH sector, are to be able to fully take on the responsibility for policy, regulation, and coordination of WASH services for South Sudan. This is critical to the long-term performance of the WASH sector, a highly visible metric for overall government performance. Improved systems would bring immediate benefits to a government struggling to prove its effectiveness to a population greatly concerned about access to clean drinking water after years of conflict.

Following the signing of the CPA, the GOSS started to establish its structures and systems from scratch. The water sector, like all sectors, lacked trained professionals at all levels of government. Finding capable and literate government staff has been a challenge. Identifying the massive cadre of trained engineers, administrators, and managers needed to establish the functioning bureaucracy required to expand WASH services has not been possible. This deficiency has resulted in the prevalence of informal government systems, weak structures resulting in poor communication between different levels of government and ineffective decision making. Many water sector actors recognize this problem and understand that alternative approaches, such as more decentralized governance structures or the use of more appropriate technologies, will not by themselves resolve all the challenges.

Despite these challenges, the Ministry of Water Resources and Irrigation saw early on the need to begin to strengthen the policy environment for the sector. With assistance from international development partners, the ministry began developing a water policy for Southern Sudan in 2005. The policy was finalized in late 2007 (GOSS 2007) and formally launched in early 2009. A milestone for the sector, it outlined overall objectives and foundational principles for sector operations. However, partially due to consultations with local authorities and public stakeholders, the policy took a significant amount of time to develop during the critical post-conflict period, when the severely underserved population was thirsty for service delivery and had limited appreciation for the value of policy development.

The Ministry of Water Resources and Irrigation is now developing its sector strategy and investment plan. It is hoped that this process will help formalize the government's approach to prioritizing and actualizing the objectives laid

out in the GOSS Water Policy in a systematic manner, while taking into account the realities of financing.

International donors, the GOSS, and now the government of South Sudan have made significant investments in the water supply infrastructure, both for humanitarian reasons and to provide tangible peace dividends. However, several years after the signing of the CPA, those humanitarian WASH peace dividends lack sustainability, and there is a clear need to shift focus away from high-visibility service provision and engage with the messy business of systems strengthening and sector governance in order to maintain and preserve the gains that have been made. Water sector actors are now beginning to understand that it is easy to drill a borehole but very difficult to establish the community and government structures that are needed to be able to finance, operate, and maintain that borehole, thereby securing the benefits of the improved water points over the long term. This is further compounded by the challenges of environmental degradation and the impacts of climate change, which until now have been beyond the planning and preparation horizon of the sector.

Prior to South Sudan's independence, a 2009 report published by the World Bank estimated that between 40 and 65 percent of all boreholes in Southern Sudan were not operational (Water and Sanitation Program 2009). Systems that would make it possible to locate nonfunctioning water points and help communities to repair them are badly needed. These services will have to be improved, expanded, and maintained over the long term if they are going to have the desired impacts of promoting peace and forming the core of the development agenda in South Sudan.

Donors have set aside efforts to stabilize peace by postponing the implementation of these kinds of systems and have focused instead on quick-impact projects that increase basic service delivery. They have also tended to spend more funds on emergency-prone areas, which often also have the weakest foundation for successfully absorbing development investments. Even in more stable areas, the host government and communities have been unable to operate and maintain old and new water points. Citing stabilization as the primary objective, agencies have avoided the challenge of sustainability, choosing to drill more boreholes and dig more latrines even as many remain unused because they are broken or unsuitably placed. This has, of course, limited the impact of their work.

South Sudan needs flexible funding mechanisms that take into consideration the length of time and the amount of money needed to achieve both stabilization and development. U.S. agencies have been able to complement each other and provide this type of flexibility. The Office of Transition Initiatives, the Office of Foreign Disaster Assistance, the USAID Sudan mission, and the Bureau of Population, Returnees, and Migration have all been engaged in the water sector in Southern Sudan (and now South Sudan), since the signing of the CPA. Researchers recently noted, however, that "there is concern within the agency that a progressive shift towards developmental funding for basic services may deprive USAID of the responsiveness allowed so far by the Office of Foreign

Disaster Assistance and the Office of Transition Initiatives funding. Flexibility to reorient programming is crucial to enable interventions to address tensions around access to water when they arise" (Pantuliano, Fenton, and Herrmann 2010, 22). Flexibility is even more important in the case of complex pooled funding mechanisms that involve inputs from multiple donors and government stakeholders.

Funding for the water sector has been considerable, but it has not been flexible enough to engage the complex post-conflict context; to consider development, stabilization, emergency, governance, and peacebuilding issues simultaneously; and to promote a comprehensive, government-led, sector-wide approach. Nongovernmental organizations and UN agencies have their own agendas, often not considering longer-term development issues or the government's needs for institutional strengthening. While dealing with these many challenges, the water sector has not often been able to prioritize the water-for-peace approach.

CONCLUSION

Meeting the needs of the population of South Sudan for improved water access is a long-term challenge that requires decades of progress on systems strengthening, capacity building, improvement of sector governance, infrastructure investment, and ending dependency on aid.

Stabilization, on the other hand, is a shorter-term objective that has been the priority of both GOSS and the international community since the signing of the CPA, and will remain so with the government of South Sudan. During this period, it is likely that international funding for expanding water access will continue as one of the many tools that development partners use to leverage their assistance in support of maintaining the peace. Yet it is critically important that the government-led water sector has a vision for itself and collectively encourages programming that can meet many of the competing long-term priorities for the water sector in a conflict-sensitive manner.

Some research on and implementation of conflict-sensitive approaches to water services in South Sudan have been carried out;[2] further focus on the links between water and conflict are needed. However, the main focus of the water sector must be on establishing and strengthening government systems in a manner that ensures that foundational structures are functioning and able to maintain investments and satisfy the population of South Sudan's long-term thirst for water and peace.

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[2] See Euroconsult Mott MacDonald (2009); Harvey (2009); and Management Systems International (2009).

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