

Hydropolitics versus Human Security: Implications of South Africa's Appropriation of Lesotho's Highlands Water

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The Lesotho Highlands Water Project, which exports water to South Africa, has enhanced the unequal structural relationship that exists between both states. Lesotho, one of the few countries in the world that exports water, has transformed from one of the largest sources of labor for South Africa to a water reservoir for South Africa. Though the project provides mutual strategic economic and political benefits to both riparian states, its construction has negatively affected environmental and human security in Lesotho. Due to hydropolitics, environmental threats in Lesotho caused by the project's construction are overlooked. These threats, which have devastating effects on resettled communities and the country's ecosystem, also constitute a threat to domestic and international security. The desire to prevent interstate conflict and maintain cooperation between the two riparian states further enhances the lopsided interstate relationship.

Lesotho is one of the few countries in the world that exports water. The colossal Lesotho Highlands Water Project (LHWP), which began in 1998, is a multiphased initiative that cost an estimated US\$1 billion. It consists of a complex network of tunnels and dams that divert water from the mountains of Lesotho to South Africa. By 2008, more than 4.8 billion cubic meters of water were transferred to South Africa. When completed, the LHWP is projected to deliver more 2 billion cubic meters of water annually. The project, hailed as a major engineering feat – which it is – generates badly needed hard currency and hydroelectricity for Lesotho.¹ But there is another side to this story. The project has precipitated widescale environmental damage and human suffering, which proponents of the LHWP have understated or overlooked in the name of development.

The LHWP is unique in a second respect. South Africa's apartheid government effectively imposed the long-planned scheme after it helped remove Lesotho Prime Minister Joseph Jonathan in a 1986 coup that installed military officers

favorable to the project. In this sense, it was an early warning of water wars, in which powerful states pressure their weaker neighbors for access to this increasingly scarce resource. It also reflects South Africa's long history of expanding its tentacles of empire in search of water, and energy derived from water, throughout the region. The Cahora Bassa Dam in Mozambique, as discussed by Allen Isaacman in this issue of *Dædalus*, is a case in point.² British economists and engineers conceived of that project in the 1950s. They argued that the sale of large amounts of "unused" water would provide an additional source of income to the impoverished kingdom, which relied on the export of labor to the mines and farms of the apartheid regime for most of its hard currency. The flow of labor dated back to 1859. By 2000, more than 58,000 Basotho were in South Africa.³ Their wage remittances were essential for the survival of the rural poor they left back home.

From a narrow hydraulic perspective, the Lesotho Highlands Water Project seemed to make sense. Lesotho is located entirely within the Senqu-Orange River basin whose major catchments in the country are the Senqu, Makhaleng, and Mohokare Rivers. The total area of all these catchments is 40,843 square kilometers.⁴ Groundwater resources provide an additional 0.5 million cubic kilometers per year.⁵ Lesotho's natural renewable water resources are estimated at 5.23 million cubic kilometers per year, far exceeding its water demand. It is projected that, even today, Lesotho uses well under 5 percent of its available water. In sharp contrast, South Africa has had a long history of water shortages, which have only been exacerbated by the post-World War I urban and industrial booms. The four major river systems (the Senqu-Orange River basin, Limpopo River basin, rivers draining into the Indian Ocean, and rivers draining from the Fold Mountains into the Atlantic and Indian Oceans), taken together, plus renewable surface water, groundwater resources, and water entering South Africa yield a mean annual runoff of 49,200 million cubic meters.⁶ This figure is insufficient to meet the growing needs of more than 50 million people. Decreased rainfall, attributed to climate change, and increased water pollution have exacerbated the shortage of potable water.

Despite these complimentary interests and initial enthusiasm from leaders of both nations, growing political tension between Lesotho and the apartheid regime stalled negotiations on the proposed LHWP. Under the rule of Chief Leabua Jonathan, Lesotho tried to balance its dependence on its powerful southern neighbor and public sympathy for the African National Congress (ANC), which sought to overthrow the White-settler regime. At the same time, Lesotho maintained diplomatic relations with Pretoria and entered into a number of bilateral agreements. Jonathan opened his country's borders to political dissidents escaping South Africa. More important, he allowed the ANC to maintain a limited presence in the Highlands, where they mounted periodic crossborder raids against South Africa.

Tensions increased in December 1985 with the deaths of thirteen White South Africans killed by explosives allegedly planted by Lesotho-based ANC fighters.⁷ Over the next two decades, the Lesotho ruler, under growing pressure from the Organization of African Unity and the broader international community, increasingly spoke out against the abuses of apartheid. Jonathan also expressed increased reluctance to proceed with negotiations on the transfer of water, although he did agree to a feasibility study in 1983. By 1985, he was publicly articulating strong reservations about the economic and environmental costs of the LHWP. To ensure his nation's sovereignty, he insisted that his government should retain exclusive control over the project and determine the amount of water exported to South Africa. Pretoria rejected both demands.⁸

For the apartheid regime, the situation was becoming intolerable. ANC freedom fighters had captured the imagination of millions of South Africans and water scarcity was posing serious challenges to its plans for industrial growth.⁹ In December 1985, Pretoria ratcheted up the pressure, imposing an economic boycott on the land-locked country and intensifying anti-ANC activity raids inside Lesotho. This economic and political instability precipitated a bloodless military coup in Lesotho on January 20, 1986. South Africa immediately recognized General Justin Lekhanya's military government, many of whose members had a relationship with South African security forces, and lifted economic sanctions.¹⁰ For its part, the junta quickly restored relations with South Africa and expelled ANC militants, prompting many critics to condemn Lekhanya's regime as a puppet government. Within nine months, it resumed negotiations on the transfer of water, and Lesotho succumbed to most of South Africa's demands. In return for increasing amounts of water at the end of each phase of the project, Lesotho was to receive modest annual payments and assistance in constructing the project and hydroelectric stations. The new military authorities and South Africa signed the LHWP Treaty on October 24, 1986, thus formally establishing the policy of the commodification of Lesotho's water.¹¹

In essence, two illegitimate governments, the apartheid and military governments of South Africa and Lesotho, respectively, signed an international treaty concerning a transboundary resource. The close timing between the military coup in January 1986 and the signing of the treaty in October the same year has led several scholars to conclude that there was a direct linkage between the two events and that the military coup was, in fact, a South African sponsored "water coup."¹² Whatever the case, it is clear that Lesotho became further entrapped in South Africa's tentacles of empire. The treaty spelled out how the Senqu-Orange River and its tributaries would be diverted to supply the water needs of South Africa. It stipulated the design, construction, operation, storage capacity, and maintenance of the five dams in the Lesotho Highlands and the 200 kilometers of tunnels connecting the two countries and defined the annual minimum quan-

tities of water to be transferred to South Africa. The text also affirmed that the treaty will be reviewed at intervals of twelve years, calculated from the date it was signed.¹³ Over the next eight years, the partners initiated a series of feasibility studies to determine the economic, environmental, and social impact of the project.

The end of apartheid and democratic multiparty elections in 1994 gave new impetus to the LHWP. The new ANC government, which had previously criticized the initiative as an “apartheid project,” eagerly embraced the agreement and called for increased cooperation between the two riparian states. On January 22, 1998, King Letsie III of Lesotho and President Nelson Mandela of South Africa inaugurated Phase 1A of the project, emphasizing its political and economic significance. The World Bank, the African Development Bank, the Development Bank of South Africa, and a number of European commercial banks and export agencies funded the project. Five years later, Phase I of the project was completed. Phase II was launched on March 27, 2014, by King Letsie III of Lesotho and President Jacob Zuma of South Africa.¹⁴

For South Africa, the economic and political benefits of the LHWP have been immediate and far-reaching. The flow water helps to sustain the vast industrial centers and urban residential areas in and around Johannesburg and the densely populated Gauteng province. Lesotho’s water cools the country’s massive Eskom power stations in Mpumalanga; maintains Sasol, the country’s integrated chemical and energy company; and keeps the Free State gold mines operational. It also helps sustain a number of southern towns in the Limpopo province, the platinum mines in the northwest, including the diamond mines, and the residents of Kimberley. When South Africa experiences periodic droughts or requires additional water, emergency supplies are transferred through the tunnels to the Caledon River, the Eastern Cape, and the southern Free State through the BloemWater network. In short, Lesotho has become South Africa’s principal water reserve, or a domestic water colony (just as Cahora Bassa has become a much-needed source of cheap energy).¹⁵

The high priority that the post-apartheid government places on the LHWP is reflected in its willingness to intervene both politically and militarily in Lesotho’s domestic affairs to ensure political stability and a regular flow of water. The first incursion occurred just eight months after the inauguration of Phase 1A of the project in 1998.¹⁶ A postelectoral crisis in Lesotho, triggered by accusations of electoral fraud, fueled widespread civilian protest followed by an attempted mutiny in September 1998. At the request of Lesotho Prime Minister Pakalitha Mosisili, the South Africa Development Community (SADC) authorized a joint South African and Botswanan expedition to restore order and resolve the dispute. When these efforts failed on September 22, 1998, South African De-

fense Forces (SANDF) launched a major attack with the stated objective of restoring peace and stability.¹⁷ It is not inconsequential that one of the SANDF's first objectives was to secure control of the strategic Katse Dam, an area not controlled by rebel forces. In the skirmish that ensued, several soldiers of the Lesotho Defence Force guarding Katse Dam were killed. There was no justifiable military reason for the operation.¹⁸ The action was simply defended as necessary to protect Pretoria's water supply. The intervention also preserved the authority of Lesotho's leaders, who were increasingly dependent on the ANC government.¹⁹

Given South Africa's hydropolitical interests, it is not surprising that Pretoria intervened later when the government of Lesotho became embroiled in another political crisis. The ruling coalition, which was extremely unstable, fractured in 2014, precipitating intense interparty and intraparty struggles over who would control the reins of power. Much of the conflict centered on which ministries would direct the LHWP and oversee the multimillion-dollar second phase of the project. Prime Minister Thomas Thabane was accused by his coalition partners of unilaterally dismissing and appointing high-ranking state officials to oversee the LHWP.²⁰ At stake was control of a vast sum of money garnered through corruption and used to support a system of political and financial patronage. This was not a new phenomenon. Graft and highly publicized scandals surrounding the project dated back to the 1990s.²¹ Members of parliament proposed a motion of no-confidence in Thabane. He stopped the motion when King Letsie III granted him permission to suspend parliament. Tensions persisted. The SADC sent South African President Zuma and his Namibian counterpart to resolve the conflict. For Pretoria, the instability raised concerns about the long-term viability of the project. Under pressure from the two presidents, the competing factions resolved their differences. Looking back at the crises, the press secretary to the Lesotho prime minister stressed the extremely important role that Zuma played and why it was imperative that political stability be restored.

*The South African government wants to make sure that there is stability in Lesotho so that they can still continue to get quality water from us. They cannot look anywhere else but to us for water. They need our water.*²²

If South Africa was the obvious beneficiary of the LHWP, how did this massive development project enhance the prosperity of Lesotho? Clearly a portion of the political elite and their financial allies and supplicants benefited. Water has certainly been used by the entrenched elite for political gain. But beyond this narrow stratum, were the immediate short- or long-term advantages that Lesotho derived from the project met?

At first glance, the answer seems to be a qualified yes. At a national level, the water royalties increased, the dams supplied electricity for domestic use, and there was a dramatic expansion in the construction of roads, power lines, and oth-

er infrastructure. The project's contribution to the economic activity of Lesotho is estimated at 5.4 percent of the gross domestic product (GDP).²³ From January 1997 to December 2020, for example, the accumulated water delivery from Lesotho to South Africa was 16,401.3 million cubic meters. The revenue generated from the water was approximately US\$1.25 billion.²⁴ Predictably, the leaders of Lesotho heralded not only the economic benefits of the project, but also its strategic importance as a source of economic development and enhanced international standing as well as a symbol of modernity.²⁵ They and their South African counterpart hailed the project as a model of cooperation between the two riparian states.

One of the unintended consequences has been that the water royalties helped to fill budgetary gaps created by the sharp decline (by 43 percent) in the number of Basotho men working in South Africa, with a corresponding fall in remittances and, by extension, revenue for the Lesotho treasury.²⁶ Between 2005 and 2018, for example, these remittances declined from 35.6 to 15.6 percent of the GDP.²⁷ This narrative of mutually beneficial development obscures more than it reveals. While it is a symbiotic relationship, it is far from an equal relationship. Indeed, the treaty is one more marker of Lesotho's dependency on South Africa, which dates back to the end of the nineteenth century. It not only codified the unequal relations of power but infringes on Lesotho's sovereignty and control over its scarce resources. The unequal structural relationship and perceived economic and political values of water, including the patronage benefits of the LHWP, serve the parochial interests of Lesotho's leaders. Water is thus constructed as a valuable weapon that can be exploited for political gain.²⁸

One indicator of the unequal partnership is the rules governing the pricing and distribution of the flow of water, and what would seem to give it substantial bargaining chips is the 1986 agreement treaty. The treaty guaranteed minimal quantities of water that the mountain nation had to provide annually. South Africa also had the right to demand additional flows in times of drought. What is particularly revealing is that South Africa has managed to dictate the price it paid, which is considered well below market value. Once out of office, Prime Minister Thabane acknowledged this reality.

We are selling water to South Africa. But . . . the price of that water has not increased in a very long time? Which product in the world has maintained the same price over a 20-year period, more so when it is a rare and sought-after commodity and when the buyer has the money to pay more? We are actually subsidizing South African economy with our water. . . . How then are we going to make ends meet?²⁹

For the leadership of Lesotho, hydropolitics outweighed environmental and human security. The construction of the LHWP disrupted the daily life patterns of communities due to the loss of land, fuel resources, wild vege-

tables, medicinal plants, grasses, river sand, cultural activities, graves, religious sites, and adequate compensation. To meet Phase I of the LHWP, the government commandeered 1,900 hectares of arable land and 5,000 hectares of grazing land, which were subsequently flooded. The submerged land was among the most productive in the country. These rich alluvial soils, which had been enhanced by natural deposits of minerals from the rivers, produced the highest yields of agricultural products in the country. Approximately 2,345 households lost fertile fields in the submerged areas. Several thousand sharecroppers suffered a similar fate. The Mohale valley, which has been filled by the Mohale Dam, contains Lesotho's most fertile land. It is the only region in the country that produces an agricultural surplus. The loss of that land adversely affected local-level food security as two-thirds of the people living in the affected areas depend on locally produced crops. The inundation of winter pastures also made livestock-rearing much more difficult, leading to the deaths of large numbers of livestock.³⁰ The implementation of Phase II in the near future will result in the removal of an additional eight thousand people, pushing the total number of displaced to over thirty thousand.³¹

Springs also dried up in several villages located in the catchment area of the Katse Dam, thereby reducing the amount of fresh water available to communities.³² Women and young girls could no longer simply walk to the nearby river's edge to secure water for cooking and bathing. Instead, they had to travel greater distances to meet the daily needs of their households and communities. Displaced communities also lost trees and shrubs, wild vegetables, medicinal plants, and grasses, causing additional economic hardship. Prior to resettlement, many households sold firewood to supplement their family income. However, since very few trees grow outside inundated zones, community members lost important fuel-wood sales. The Highland communities also lost access to a variety of medicinal plants that were important for the treatment of several human illnesses, and they were no longer able to sell the surplus to healers serving Basotho in the lowlands. Craftspeople were adversely affected as well. Most of the leloli grasses, used to make baskets, were no longer accessible.³³ This was also true of the river sand, used primarily to forge bricks. Many local construction projects ceased, and local artisans lost work. To make matters worse, the compensation policy of Phase I of the LHWP was inadequate and poorly implemented. As a result, households reported a decline in their income and decreased financial security.³⁴ Malehana Motanyane, a seventy-year-old woman, put it best: she stressed that in the olden days, she and her neighbors had fertile fields, good pasture, and peace of mind, but "today it is different, we are poorer now than before [LHWP]." ³⁵ In addition to the deleterious economic consequences, the resettled communities suffered a profound cultural shock.³⁶ Many of their burial sites and religious centers were underwater, making it difficult to propitiate the ancestor spirits. Historically, consulting the ancestors was essential to ensure the fertility of land, cattle, and

women as well as the health and well-being of the region's rivers. Those whose ancestors' graves were relocated had to travel long distances to pay homage to the deceased.³⁷

Included in the litany of complaints are the traumatic social and psychological effects many of the displaced experienced. Elders complained of the diminished significance of kinship groups and social networks, strained family relationships, devalued belief systems, and a heightened sense of collective insecurity within their community.³⁸ One elder man captured this sense of collective anxiety: “[the dead ones] are going to rise up against us and say ‘You leave us here so we can be drowned by the water?’”³⁹ A study conducted on the sociopsychological impact upon the resettled community of the Molika-lika area displaced by the Mohale Dam concluded that those who had been moved felt anxious and extremely vulnerable in their new environment.⁴⁰ They also stressed that competition for the best available agricultural or grazing lands or for forest products intensified conflict within and between communities. In some cases, the scarcity of grazing lands led to pitched battles among herders.⁴¹

Both before and during each phase of the LHWP, state-appointed interdisciplinary teams of ecologists, hydrologists, biologists, engineers, social scientists, and construction company consultants generated lengthy reports assessing the potential impact of the project. They concluded that the environmental impact would be minimal and dismissed the critics' concerns.⁴² As was often the case in such large development schemes, these experts' projections proved wrong. The LHWP has caused massive environmental degradation, which has led to the destruction of natural resources such as soil, water, and various species of flora and fauna. Consider the far-reaching impact of project-related soil erosion. Rivers downriver from the dams became nutrient-starved since most of the minerals and other organic material in the water were blocked by the walls of the dams. To compensate, the waterways pulled rich alluvial soils from the shoreline, eroding the banks. Poor drainage systems along project roads meant that runoff from these ditches created wider gullies. This, in turn, forced farmers to plow against the hillside contour, further exacerbating the erosion. Due to the decrease in grazing lands in the Highlands, herds of livestock are now concentrated on a significantly smaller area, depleting the soils there as well.

Much of the most valuable flora, including wild vegetables, medicinal plants, and valued grasses, ended up underwater as well. The dietary effects on the resettled communities were significant. Households were no longer able to gather wild vegetables from the inundated areas, which were significant nutritional supplements to their starch-based diet. They now either eat fewer vegetables, or must travel longer distances to gather them. As previously noted, many of the 175 species of medicinal plants disappeared from the area completely or became so scarce that it is no longer viable to search for them, as is the case with the leloli grasses.⁴³

The LHWP has also threatened the survival of fish. The project was assessed as creating a potentially major threat to the survival of the Maloti minnow species. The planners of the LHWP failed to consider how the water-transfer tunnel linking Katse Dam on the Malibamatso River with the Mohale Dam on the Senqunyane River allowed the predatory Smallmouth Yellowfish to invade the Senqunyane River, threatening the total extinction of the Maloti Minnow, an important source of protein for local communities. There also has been a sharp decline in trout and other species that have escaped through the tunnels into South Africa.⁴⁴

Despite the decision of the government to ratify the United Nations Framework Convention on Climate Change, greenhouse gases emitted by the dams have contributed to global warming, which has already impacted water resources. Catchment yield has decreased while large and robust rivers have been reduced to mere trickles. Dams remain dry for most of the year. Global warming is also projected to have adverse impacts on regional freshwater resources not only in Lesotho but throughout the region. Water from the mountainous nations not only flows through South Africa but into Namibia, Botswana, and the Atlantic basin.⁴⁵ Some hydrological scenarios project that water-rich Lesotho will enter a period of scarcity by 2062.⁴⁶ Given the country's current population growth rate and its accompanying service-delivery requirements, some researchers have suggested grave water stress could be reached even earlier. The shrinkage of the supply could raise new tensions between Lesotho and her powerful neighbor and precipitate South African intervention once again.⁴⁷ Even if such a scenario does not take place, Lesotho will likely lose substantial water royalties, which help pay for many social projects.⁴⁸ These pessimistic projections are supported by current data. According to the Lesotho Highlands Development Authority, climate change effects, particularly drought, have forced the dam levels to operate at an almost suboptimal state, thereby adversely affecting water delivery and electricity-generation targets.⁴⁹ This was evident when, as of October 25, 2020, the Katse Dam, whose water storage capacity is 1,950 million cubic meters, was only 20.95 percent full, while the Mohale Dam, whose storage capacity is 946.9 million cubic meters, was only 20.54 percent full. Actual water deliveries to South Africa reduced from 63.0 million cubic meters in September 2020 to 54.1 million cubic meters in December 2020.⁵⁰

Like in other parts of Africa, hydropolitical realities enhanced the unequal structural relationship between postcolonial states while negatively impacting the health and well-being of thousands of Lesotho's citizens.⁵¹ Climate change has also begun to affect water deliveries to South Africa. These adverse effects are likely to have serious ramifications for both domestic and regional security. Political leaders in Lesotho need to reevaluate the strategic values they attach to the country's water resources and prioritize domestic environmental and human security needs. Lesotho's water should serve the nation and not a privileged elite or South Africa.

ABOUT THE AUTHOR

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ENDNOTES

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- ⁶ Food and Agriculture Organization of the United Nations, *Country Profile – South Africa*, FAO AQUASTAT Report (Rome: Food and Agriculture Organization of the United Nations, 2016). Irrigation is the most important water user, withdrawing 60 percent of the water. Urban municipalities use 24 percent and rural ones use 3 percent. Industries use the remainder, including 3.5 percent for mining and 4 percent for power generation. Compared with South Africa, Lesotho has an abundance of natural renewable water resources, part of which it exports.
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- ¹⁸ Odendaal, “Peacebuilding in Lesotho.”
- ¹⁹ Mwangi, “Hydro-Politics, Ecocide and Human Security in Lesotho.”
- ²⁰ Bongwiwe Zihlangu and Billy Ntaote, “Coalition Pact Collapses,” *Lesotho Times*, June 13, 2014, <http://lestimes.com/coalition-pact-collapses>.
- ²¹ Notable examples of political patronage benefits are the LHWP corruption scandal and the Lesotho Highlands Revenue Fund (LHRF) of the 1990s. The corruption scandal saw the chief executive officer of the Lesotho Highlands Development Authority, the implementing agency of the LHWP, abuse his powerful and influential position by awarding several construction-related contracts to multinational corporations for personal financial gain. The LHRF, whose funds were derived from project royalties and receipts from customs intended to alleviate poverty in the country, became an instrument of political patronage. Ministers and members of parliament used it to strengthen the ruling party’s support. The fund, unable to deliver benefits to project-affected communities, eventually closed in 2003. John Hatchard, ed., *Cases and Materials Relating to Corruption*, vol. 2 (London: The Lesotho Highlands Water Project Case, 2004).
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- ²⁵ The term “sanctioned discourse,” in the context of integrated water resources allocation and management, was introduced by and associated with Tony Allan. For a detailed discussion of the term, see Tony Allan, “IWRM/IWRAM: A New Sanctioned Dis-

- course?” SOAS Water Issues Study Group Occasional Paper 50 (London: University of London, 2003).
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- ³⁷ Hitchcock, “The Lesotho Highland Water Project.”
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