

CAHORA BASSA: EXTENDING SOUTH AFRICA'S TENTACLES OF EMPIRE

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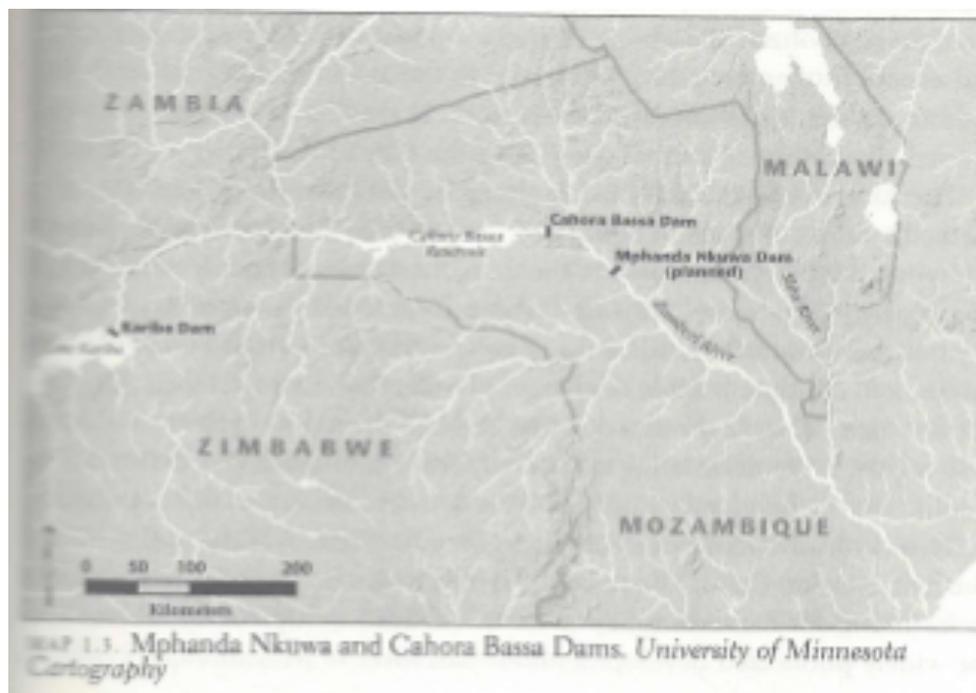
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Cahora Bassa: Extending South Africa's Tentacles of Empire

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In 1965, when Portugal proposed constructing a dam at Cahora Bassa, colonial officials envisioned that numerous benefits would flow from the US\$515 million hydroelectric project and the managed environment it would produce. These included the expansion of irrigated farming, increased European settlement and mineral output, improved communication and transportation throughout the Zambezi River Valley, and reduced flooding in this zone of unpredictable and sometimes excess rainfall¹. The Overseas Minister, Dr. Silva Cunha, during his 1971 visit to Cahora Bassa, then under construction, stressed the transforming social and cultural potential of the dam, declaring that Lisbon's objective was "to tame the wild river and transform it into a valuable tool for progress...for the betterment of the indigenous peoples who are an integral part of the Portuguese nation."² In short, the dam would stand as a testimony to Portugal's "civilizing mission." As a follow-up to this technological triumph, Portuguese planners



¹ Arquivo Histórico Diplomático de Ministério dos Negócios Estrangeiros (AHD), Processo EAA 146, Pasta 1: Domingues de Almeida, 3 June 1970.

² J.M. da Silva Cunha, *Cahora Bassa: Who Will Benefit by It?* (Lisbon: Agência-Geral do Ultramar, 1970), 9.

envisioned building a second dam 60 kilometers south of Cahora Bassa at Mphanda Nkuwa.

Despite these pronouncements, the realities on the ground forced Portugal to drastically modify its vision for the dam. During the period of construction, the growing success of the liberation struggle against Portuguese colonialism in Mozambique turned the dam into a focal point in a larger regional struggle, and Cahora Bassa became a security project, which the minority regime in South Africa and the Salazar dictatorship in Portugal masked as a development initiative. Both viewed the dam and its connected lake as a powerful buffer that would block the advance of FRELIMO (Frente de Libertação de Moçambique) forces and, by extension, the African National Congress, since they feared that, were FRELIMO and its allies able to cross the Zambezi River, they would have relatively easy access to both the two major colonial cities of Beira and Lourenço Marques and the South Africa frontier.

In return for South Africa's strategic assistance in the fight against FRELIMO, Portugal agreed to export to South Africa the vast majority of the energy that Cahora Bassa would produce at an artificially low price.³ This 1969 agreement transformed Cahora Bassa from the multi-purpose hydroelectric project that Lisbon had originally conceived into a dam whose principal function was to provide energy to South African mines and industry at a fraction of the world price—thereby enhancing Pretoria's energy security.

The effects of this military alliance, however, were not limited to the sale of cheap energy to South Africa to the control of Cahora Bassa itself. Of greater significance, the agreement enabled the apartheid regime to extend its influence well beyond southern Mozambique, where it had been a dominant force since the middle of the nineteenth century. Its tentacles of empire now reached north from its de-facto labor reserve in southern Mozambique and its dominance at the port of Lourenço Marques to the dam site in very heart of the colony, some nine hundred kilometers away. Allowing South Africa to expand into the Mozambican hinterland was just the latest example of the financially strapped Portuguese state's "outsourcing of empire."⁴

³ Indeed, Cahora Bassa was the largest dam in the world constructed for the specific purpose of exporting energy.

⁴ Eric Allina has documented that from the 1880's to the 1930's the Companhia de Moçambique enjoyed state-like power over its vast concessionary holdings in the central part of the country. South Africa's expansion into the Mozambican hinterland was just the latest example of the financially strapped Portuguese state "outsourcing of empire" [Eric Allina, *Slavery by Any Other Name: African Life under Company Rule in Colonial Mozambique* (Charlottesville: University of Virginia Press, 2012)]. A similar phenomenon occurred in Angola, where Diamang, the large diamond mining company owned by the South African company DeBeers, effectively governed vast tracts of eastern Angola while extracting millions of dollars in diamonds during much of the twentieth century [Todd Cleveland, *Diamonds in the Rough: Corporate Paternalism and African Professionalism on the Mines of Colonial Angola, 1917-75* (Athens: Ohio University Press, Forthcoming)].

Cahora Bassa became an outpost of empire over which the South Africa state, a closely aligned para-statal (ESKOM) and a South African dominated consortium (ZAMCO) exercised substantial economic and political power. Control over Cahora Bassa was part of the apartheid regime's ambitious plan to integrate it and other dams in Lesotho, Angola, Namibia, Zambia and Zimbabwe into one centralized power grid. "In this way, South African planners hoped to 'capture' the region and become its 'natural' engine and powerhouse."⁵

To demonstrate that Cahora Bassa was a South African outpost of empire in the heart of Mozambique, requires a brief discussion of the concept of empire itself—which has generated intense debate among scholars.⁶ Three elements are critical—the partial domination of an imperial power, that persists over time, even as the form of the domination changes. While "empire" often denotes foreign conquest, such is not always the case. Domination can be political, economic, cultural, or some combination thereof, but it must infringe in some way on the sovereignty of the dominated polity. Additionally, the degree of domination is never total but varies over time and space, depending on the objectives of the imperial entity, the power it is willing or able to exercise, and the ability of the dominated group to resist or remain beyond its gaze. Much of rural Mozambique, for example, remained outside Lisbon's effective control throughout almost 500 years of colonialism.⁷ Finally, empires are not static entities. While they may be transformed or, sometimes, reconstituted, whatever their form, metropolitan domination persists. Thus, for example, in the age of imperialism, trading post empires in Africa often became colonies; then, after World War II, colonies became independent, only to find themselves effectively bound to their former imperial overlord in a neo-colonial relationship.

Like empires, outposts of empire occurred throughout history and took many forms. All, however, they were self-contained enclaves forged by powerful foreign interests—generally most often sovereign states or private commercial entities—that established patron-client relationships with the indigenous authorities. Most foreshadowed anticipated, attempted or actual physical annexation. The seventeenth century territorial expansion of the Dutch East

⁵ "Cabora Bassa Rethink," *South* 1 (October, 1980).

⁶ See, for example, Michael Doyle, *Empire* (Ithaca: Cornell University Press, 1986); Michael Hardt and Antonio Negri, *Empire* (Cambridge, MA: Harvard University Press, 2000); Tarak Barkawi and Mark Laffey, "Retrieving the Imperial: Empire and International Relations," *Millennium: Journal of International Studies* 31(1): 109-27; Martin Shaw, "Post-Imperial and Quasi-Imperial: State and Empire in the Global Era," *Millennium: Journal of International Studies* 31(2): 327-36;

⁷ Allen Isaacman, *The Tradition of Resistance in Mozambique: The Zambesi Valley, 1850-1921* (Berkeley: University of California Press, 1976); M.D.D. Newitt, *A History of Mozambique* (Bloomington: University of

Indian Company in South Africa, France's establishment of autonomous commercial enclaves in Tunisia in the middle of the nineteenth century. British control of the Egyptian economy in the years preceding the Scramble, and King Leopold's claim to vast parts of the Congo, through his role as organizer of the *Agence International du Congo*, a putative philanthropic society, are cases in point.⁸ Similarly, after the Spanish-American War, the United States established military bases in Cuba and the Philippines, and, in the Cold War-era, it created a global overseas network that included strategic installations in Japan, Korea and Turkey.⁹ Its military bases there, which effectively became foreign enclaves over which the "host nations" lost their sovereignty, were built on land appropriated from the local communities, whose villages were destroyed, livelihoods upended and sacred sites violated.¹⁰ More recently, Washington extended its military reach across an arc of bases in Central Asia.

While Cahora Bassa had much in common with these examples, there were a number of fundamental differences. Despite Portugal's concern about Pretoria's infringement on its sovereignty, it encouraged, rather than reluctantly permitted, South Africa to extend its economic and military presence in Mozambique. Secondly, while other empires expanded into sovereign nations, this is the only case of which we are aware in which the expansion was into a region already colonized by another imperial power, whose sovereignty was internationally recognized. In the case of Cahora Bassa, however, Pretoria's newest outpost of empire was into a region that was already internationally recognized as a Portuguese colony. Moreover, only rarely, if ever, did a sovereign power voluntarily concede control over a strategic waterway; rather, sovereignty over such waterways is often the source of violent conflicts among nations.¹¹

South Africa's influence on the Cahora Bassa hydroelectric project was ubiquitous. In fact, without its intervention, there arguably would never have been a dam there. Pretoria provided critical start-up capital, and South African investors were instrumental in putting together ZAMCO, the consortium that funded and built the dam. South African overseers supervised the construction of much of the hydroelectric project and imposed a harsh labor

Indiana Press, 1995).

⁸ For a comparative analysis of the antecedents and construction of colonial empires see, David Strang, "Contested sovereignty: the social construction of colonial imperialism," *Cambridge Studies in International Relations* 46 (1996): 22-49.

⁹ Tarak Barkawi and Mark Laffey, "Retrieving the Imperial: Empire and International Relations", 124.

¹⁰ Sara Irving, Wilbert van der Zeijden, Oscar Reyes, Peace & Security "Outpost of Empire: The Case Against Foreign Military Bases," *Transnational Institute*, www.tni.org/archives/act/17124 (last viewed on July 14, 2013).

¹¹ Vandana Shiva, *Water Wars: Privatization, Ecology and Development* (London: Zed Books, 1988).

regime at the dam site. They also brought their racist attitudes and contempt not only for African workers, but also for Portuguese laborers, which created deep tensions and periodic conflicts within the European community. Additionally, the South African military, working with the Rhodesian army, provided colonial Mozambican authorities with strategic and logistical support aimed at thwarting FRELIMO's attacks on the dam and at blunting its movement south toward the Limpopo River.

It did not take long, after Mozambique's independence, for the apartheid regime to turn Cahora Bassa and its power lines into a strategic military hostage. Beginning in 1980, Pretoria launched a sustained military and economic campaign to destabilize the Mozambican government and destroy the nation's infrastructure. High on its list were the pylons of Cahora Bassa. The power lines, stretching more than 900 kilometers through remote parts of Mozambique to the South African border, were an easy target and were only transmitting a small percentage of the electricity consumed by the apartheid regime. For more than a decade, South African-backed RENAMO (Mozambique National Resistance) fighters repeatedly sabotaged the dam's power lines, paralyzing the hydroelectric project and terrorizing the hundreds of thousands of peasants living adjacent to the Zambezi River.

Although the destabilization campaign ended in 1992 and the ANC came to power two years later, questions of sovereignty and empire persisted. The new South African government initially refused to renegotiate the colonial contracts that set the price of Mozambican electricity artificially low. Only reluctantly, and under great pressure, did Pretoria agree to gradually pay more for the energy imported from Mozambique. Even after 2007, when Mozambique gained control of the dam, it could not break the bonds of dependency imposed by its powerful neighbor to the South, to which it exported most of the dam's energy at an extremely favorable price. Today, more than 80% of the electricity that Cahora Bassa produces is exported to South Africa at a secretly negotiated rate, and Mozambique is poised to conclude an agreement to build a second dam sixty kilometers downriver from Cahora Bassa at Mphanda Nkuwa to supply additional electricity to South Africa. In short, the Zambezi River and the dam are part of South Africa's outpost of empire—which arguably extends into Lesotho, Swaziland and southern Mozambique.

Colonial Planning and the Politics of the Dam

Although Portuguese planners had long dreamed about colonizing the Zambezi River and building a dam at the Cahora Bassa Gorge, Lisbon only realized that taming the great river might be achievable in 1955, after the British had made the decision to construct a large hydroelectric project at Kariba, approximately 600 kilometers upriver from Cahora Bassa between colonial Zambia and Zimbabwe.¹² Nevertheless, there were myriad logistical and technical problems that thwarted this project. Not the least of these was its location 400 miles from the Indian Ocean in one of the most remote, inaccessible and unhealthy parts of Mozambique. There were no roads, transportation network or other infrastructure necessary to build such a massive project.

When colonial planners began their initial explorations in 1957, Songo, the proposed center of the project, was on a plateau approximately 80 miles north of the dusty district capital of Tete. The nearest Portuguese post was 20 miles away at Estima, and the local administrator's only access to Songo was on a dirt path that could only be traversed by foot, bicycle or donkey. This path had only recently been built by forced labor to enable a local Portuguese merchant to transport goods to his small canteen on the plateau, showing how inconsequential Lisbon considered this region.¹³

The gorge across which the dam would be constructed was even less accessible. According to Pedro da Costa Xavier, a local African state employee, who was the first person to survey the dam site, the steep 3,000-foot escarpment from Songo to the confluence of the Zambezi and Gutu Rivers was extremely difficult to descend. He described his first trip there in October 1957 as follows:

I was taken by helicopter to fly over the area where the Gutu River falls into the Zambezi. That is where they planned to build the dam. We returned to Songo and the Portuguese officials ordered *fumo* Songo [the village headman] to select someone to accompany me back to the site on foot. The Portuguese knew there was a gorge, but they did not know what exactly was there. Our trip was very dangerous. There were a lot of wild animals, particularly lions. It took us three hours to climb down. The vegetation was very heavy. We followed the route of the monkeys. When we arrived, I made drawings of the river, the shoreline and

¹² Lisbon initially showed little interest in the Kariba project and only agreed to participate in a bilateral Zambezi River Commission after it secured guarantees that the dam would not adversely affect either its irrigation schemes or navigation downriver.

¹³ Due to the rugged terrain and lack of technical input from the state, the road took almost eight months to complete. "The *picada* [dirt road] was built by Jose Vas Godinho after he decided to open a shop in Songo. At the time, he went to the administrator and requested *chibalo* labor, people who did not get paid. Each *fumo* [village head] had to bring a number of his followers and clear a designated area. They used hoes. A few had pick axes. African *sipaes* [police] supervised the workers. Some mistreated them. Sometimes the local administrator would beat them with a *palmatorio* [hand club]. This was not a road for cars; it was only for donkeys and people" [Interview with Pedro da Costa Xavier, Songo, 23 & 27 May 1998].

the surrounding mountains. We then climbed back up the escarpment, mapping out our path in great detail.¹⁴

The lack of demand for electricity was a further deterrent. Officials estimated that Mozambique would only be able to consume five to ten percent of the energy the dam would produce, and there was little need in the region for the surplus. Because of the planned dam upriver at Kariba, neither Rhodesia nor Zambia was seeking additional energy, and South Africa already produced sufficient energy.¹⁵ Moreover, even if South Africa might have been interested in energy from Cahora Bassa as a strategic reserve, existing technology did not permit transmission of electricity 900 kilometers to Johannesburg without the loss of much of it in the process.¹⁶

Despite these obvious problems, once the Salazar regime realized that taming the Zambezi might be achievable, it moved with dispatch to determine the project's viability. Within months, the Overseas Minister, Raul Ventura, authorized scientists to investigate the possibility of impounding the Zambezi at Cahora Bassa. Professor A. A. Manzanares, a close advisor to the Portuguese dictator, António Salazar, made an official visit to Mozambique in May 1956. He flew by helicopter to the Cahora Bassa Gorge—which was the only way it could be reached—and, upon his return to Lisbon, enthusiastically endorsed the project.¹⁷ His findings were embraced by the Overseas Ministry, which issued a highly influential and optimistic report:

The basin of the Zambezi in Portuguese territory contains more economic possibilities for the future than any other river in Africa or even in the rest of the world. [W]e must appreciate that in the Mozambique basin the potential energy of the river is roughly 50 billion KWH [50,000 megawatts] of which more than half can be achieved in a relatively short space The floods, when [Kariba and Cahora Bassa] are built, will become a memory, a spectre from past nightmares; and the lowlands formed over billions of years by the alluvial silt from Central Africa, product of primeval erosion, will be turned to productive use by the patience and tenacity of men.¹⁸

Almost immediately thereafter, the Salazar regime established a river basin authority, the *Missão do Fomento e Povoamento do Zambesi (MFPZ)*, which was modeled on the United States'

¹⁴ *Ibid.*

¹⁵ Keith Middlemas, *Cahora Bassa: Engineering and Politics in Southern Africa* (London: Weidenfeld and Nicolson, 1975), 30-2.

¹⁶ *Ibid.*, 22.

¹⁷ Peter Bolton, "The Regulation of the Zambezi in Mozambique," Ph.D. Thesis, University of Edinburgh (1983), 445-46.

¹⁸ *Diário das Sessões do Assembleia Nacional*, Supp. 184, 8 March 1958, quoted in Middlemas, *Cahora Bassa*, 17.

Tennessee Valley Authority (TVA), to develop the Lower Zambezi. In 1961, the MFPZ produced a fifty-six-volume report, which confirmed that a dam would be highly beneficial to the region.¹⁹

For many metropolitan and colonial administrators, damming the Zambezi quickly became both a powerful symbol of patriotic pride and a reaffirmation of Portugal's commitment to maintaining its African colonies at all costs. The Governor of Tete District, site of the proposed dam, put it bluntly: "Cahora Bassa is a very strong statement from our country," he told a reporter from the *Washington Post*, which "means we are not going to give [Mozambique] up. It is determination shown on the ground."²⁰

Colonial authorities further predicted that the economic development Cahora Bassa stimulated would dramatically increase the size of the white settler population in the Zambezi Valley. They identified 1.5 million hectares suitable for irrigation, on which they anticipated housing the 80,000 Portuguese immigrants projected to join the planned agricultural communities (*colonatos*) on both banks of the Zambezi River downstream from Tete, and they conducted agronomic and climatic investigations to determine which cash crops would best thrive there.²¹ Like the mineral wealth to be shipped downriver and exported through Chinde, the planners expected the agricultural and forest commodities produced on the *colonatos* to be channeled down the Zambezi for sale abroad.

Portuguese officials also believed that the dam would make it much harder for FRELIMO to cross the strategic Zambezi River. They theorized that the lake behind the dam, stretching from Songo to Zumbo and projected to be 500 kilometers long and several kilometers wide, would pose a formidable geographic barrier to the guerrillas' otherwise easy access to the economic heartland of Mozambique. That impediment, together with the relocation of thousands of former soldiers²² and armed settlers in the *colonato* scheme, would provide a first line of defense against African guerrillas seeking to reach the capital, Lourenço Marques, and to

¹⁹ See Bolton, "The Regulation." These reports are available in the Arquivo Histórico de Moçambique (AHM) located in Maputo.

²⁰ *Washington Post*, 13 May 1971, 14.

²¹ Silva Cunha, *Cahora Bassa*, 107; Middlemas, *Cahora Bassa*, 16-22.

²² General Deslandes, the Portuguese military leader, stressed the urgency of "settling in the overseas territories the biggest possible number of former military people," since it was only through their collaboration with civilians that the colony would remain Portuguese. Quoted in D. Marchant, "The Dam at Cahora Bassa," *Venture* 23 (1971): 29-30.

overthrow the colonial regime.²³

Another strategic consequence of the dam was the relocation of 25,000 peasants, whose land was to be inundated by the 2,820 square-kilometers man-made lake behind the walls of the dam, into *aldeamentos* to prevent them from providing assistance to FRELIMO. Even though thousands of farmers would need to be displaced, Portuguese officials and state planners paid little attention to the potential consequences of the hydroelectric scheme for either these local communities or the environment. Instead, the military, fearing that local communities would support FRELIMO, rounded up the peasants and forcibly interned them in barbed-wire-enclosed strategic hamlets. There they were effectively held captive from 1971 to 1975.²⁴ These *aldeamentos*, modeled on strategic hamlets in Malaysia and Vietnam, were an integral part of Portugal's broader counterinsurgency program designed to cut FRELIMO off from its rural base of support.²⁵ A South African journalist who was one of the few foreign reporters allowed into the war zone noted the close linkages that FRELIMO had already forged with the peasantry. "It is axiomatic that guerrillas cannot be beaten if the local people support them from fear or desire. Strong local support is shown by how little information Africans here give the Portuguese about FRELIMO."²⁶

Thus, the forced removal of 25,000 peasants due to inundation from Cahora Bassa meshed extremely well with the counterinsurgency goals of the colonial state and its South African and Rhodesian allies. Claiming to protect the peasantry, Portuguese officials began to evict communities near the dam site in 1971, three years before the actual impoundment of the river. Under pressure from an expanded war and construction deadlines, local authorities did not even pay lip service to the notion of voluntary resettlement. With no warning, people in the area to be inundated were simply told they would have to leave.²⁷ They were effectively interned in rudimentary mud-and-wattle villages enclosed by barbed wire fences and policed by guards.²⁸ One ZAMCO official who visited these villagers compared them to "concentration camps."²⁹

The proposed project provoked skepticism and debate among state officials in Lisbon and

²³ For a comprehensive analysis of the Portuguese policy, see Coelho, "Protected Villages."

²⁴ For a discussion of life in the *aldeamentos* see Allen Isaacman and Barbara Isaacman, *Dams, Displacement and the Delusion of Development: Cahora Bassa and Its Legacies in Mozambique, 1965-2007* (Athens: Ohio University Press, 2013) 95-121.

²⁵ B. Jundanian, "Counterinsurgency in Mozambique," *World Politics* 6 (1974): 519-40.

²⁶ Nussey, "The War in Tete," 1.

²⁷ Interview with Pezulani Mafulanjala, Maurício Alemão and Bernardo Tapuleta Potoroia.

²⁸ See Isaacman and Isaacman, *Dams, Displacement*, 107-21.

Mozambique. A number questioned whether a mega-dam was economically viable. Portuguese Treasury and Financial officials, in particular, maintained that the dam's expense would place a heavy burden on the national budget and undermine the nation's credit-worthiness.³⁰ They also argued that Portuguese citizens were unlikely to invest either in the dam or in commercial agriculture or mining, given local entrepreneurs' traditional antipathy towards Mozambique.³¹ Critics also emphasized that the scheme rested upon unsubstantiated assumptions: that the dam would draw European settlers to the malaria-infested Zambezi Valley; that the agricultural commodities those settlers might produce would be competitive on the world market; and that the region's minerals were both substantial and accessible. Mozambique's inability to consume more than a small fraction of the dam's projected 2,075-megawatt output merely increased their concerns.³²

To overcome such opposition, proponents of the dam in the Overseas and Foreign Ministries believed that they had to be able to demonstrate that there existed a consumer ready to buy the electricity. There was also the economic uncertainty and the increasing security threats from FRELIMO. The panacea for all three problems appeared to be an energy and military agreement with South Africa. Such an alliance, these dam proponents contended, would both guarantee a market for Cahora Bassa's surplus power and incorporate Mozambique into South Africa's security zone. Projections that Pretoria's power requirements would double over the next fifteen years meant that the apartheid regime would need a secure supply of cheap energy, and the South African military had expressed its eagerness to blunt the "black onslaught." Armed with this information, in 1965 the Portuguese Foreign Ministry proposed the outlines of a far-reaching energy and security pact to its counterpart in Pretoria.

Within the South Africa state and the ruling Nationalist Party, Lisbon's proposal also sparked a sharp debate. The Electric Supply Commission (ESKOM), a South African parastatal, was adamantly opposed to buying electricity from outside of the country. To meet growing energy demands, in the 1960's ESKOM had built a number of power stations, and it had begun to interlock its power stations in a national grid to maximize energy output.³³ ESCOM's long-

²⁹ Interview with Horst Langer, Middemas Collection, A15, 1974.

³⁰ Middlemas, *Cahora Bassa*, 2

³¹ *Ibid.*

³² *Washington Post*, 13 May 1971, 14.

³³ Leonard Gentle, "ESKOM to ESKOM: From Racial Keynesian Capitalism to neo-liberalism (1910-1940)." David McDonald ed., *Electric Capitalism: Colonizing Africa on the Power Grid* (Cape Town: Earthscan, 2009), 62.

term plan was to satisfy South Africa's growing energy needs with nuclear power stations,³⁴ and its engineers argued that it was imprudent to depend on energy reserves from a dam 900 kilometers outside of South Africa located in an increasingly unstable political and military environment.

ESKOM's position was supported by a number of leading figures in the *verkrampste* ("cramped conservative") wing of the Nationalist Party. The Foreign Minister, Eric Louw, was the most outspoken opponent to such an agreement with Portugal. He rallied popular opposition, evoking the basic Afrikaner tenet of self-reliance. Louw also warned that direct involvement in Mozambique would draw South Africa into uncertain relations with other African nations and that Cahora Bassa could, in effect, become a Trojan horse.³⁵

Verglite ("enlightened") members of the Nationalist Party disagreed. Dr. H. J. van Eck, a chemist, economic planner and close and trusted adviser of General Magnus Malan, the Chief of the Defense Forces, and Prime Minister Voerword attacked this isolationism. They were joined by powerful business and engineering interests. Among the most influential was Harry Oppenheimer, owner of Anglo-American, who saw an opportunity both to extend his holdings in Angola and Mozambique³⁶ and to expand to other parts of the continent. In November 1966, Prime Minister Verwoerd announced his support of the project for strategic and economic reasons.³⁷

Six months later, the Portuguese dictator, António Salazar, reached a similar conclusion. A fierce nationalist who had long favored limiting foreign investment in the colonies, he acknowledged Lisbon's dilemma in a meeting with senior cabinet officials. While conceding that building Cahora Bassa would increase South Africa's economic and political hold on the colony, he concluded that Portugal had no alternative: "If Cahora Bassa is not built now we will never build it."³⁸

A detailed discussion of the intense competition, extensive negotiations, and cut-throat bargaining among representatives of Portugal, South Africa and the three international consortia that were vying to build Cahora Bassa which, while well documented, falls outside the scope of

³⁴ *Ibid.*; Middemas, *Cahora Bassa*, 28-9.

³⁵ Middemas, *Cahora Bassa*, 34-5.

³⁶ Oppenheimer was the principal investor in Diamante. He also had investments in fishing, cashew plantations and natural gas in Mozambique [Middemas, *Cahora Bassa*, 31-2].

³⁷ *Ibid.*, 35-6.

³⁸ Interview with Franco Nogueira, 15 November 1971, Middemas Collection, A3 Hoover Institution Archives,

this paper.³⁹ CONCASSA, a British and Italian venture, which had played a significant role in the building of Kariba dam, was the first to show interest in the project. In June 1966, CONCASSA submitted a letter of intent to undertake the entire project that included building access roads to the dam site and constructing the township of Songo. Because it lacked political influence in Lisbon, CONCASSA worked closely with sympathetic South African officials with connections in Portugal. An American group, Cahora Bassa Builders, brought together General Electric and Morris Knudsen, the largest civil engineering company in the world. Like its rival, it was prepared to construct all aspect of the dam and the supporting infrastructure. The other consortium, ZAMCO, was an amalgam of firms from South Africa, Portugal, Germany, France, Italy and a number of other countries. It was put together by two high-ranking representatives of Anglo-American, the giant South African corporation, and was backed by export credits from the Industrial Development Corporation of South Africa and the French, German and Italian governments.⁴⁰

In the final analysis, political and strategic, rather than simply cost, considerations dictated the outcome of the bidding war. The American group suffered from the growing antipathy toward the United States in official Portuguese circles. Although Washington had provided Lisbon with military equipment through NATO and leased the naval base on the Azores, it had cast a number of votes at the United Nations against Portuguese colonialism. Additionally, the White House's increasing criticism of apartheid won it few friends in Pretoria, reinforcing Lisbon's ambivalence towards the United States. Similarly, the Labor Government's growing aversion to the minority regimes in Southern Africa undermined CONCASSA's chances. By contrast, Anglo-American's subsidiary, Diamang, was a major exporter of diamonds from Angola, and its owner, Harry Oppenheimer, had a close working relationship with the Salazar regime. Thus, it was little wonder that, in September 1969, Lisbon signed a US\$515 million agreement with ZAMCO, after consultations with its South African ally, to build Cahora Bassa.⁴¹

Throughout these negotiations, Pretoria not only played a significant role, but it provided

Stanford University.

³⁹ Middemas, *Cahora Bassa*, 42-84; Interview with Franco Nogueira; W. Hance, "Cahora Bassa Hydro Project: Portugal and South Africa Seek Political and Economic Gains From Joint Investment," *Africa Report* 1 (1970): 20-1; E. Júnior, "Cahora Bassa no Desenvolvimento do Vale do Zambeze," *Ultramar* 2 (1973): 101-75. See also other Interviews in the Middemas Collection housed in the Hoover Institution Archives at Stanford University. The Arquivo Nacional de Torre de Tombo in its collections on Cahora Bassa also has extensive documentation on these negotiations.

⁴⁰ Middemas, *Cahora Bassa*, 42-84; Interview with Franco Nogueira

critical funding. The total South African investment of 190 million Rand was approximately 45% of the initial cost. According to historian Keith Middlemas, who wrote the definitive work on the dam's construction, "South Africa had become the bank of last resort for ZAMCO."⁴²

With this agreement, Cahora Bassa, which was originally intended to provide hydroelectric power to stimulate agriculture, forestry, mining and industrial production and to control flooding,⁴³ had been effectively reconfigured both as a source of cheap energy for South Africa at one of the lowest prices in the world⁴⁴ and a barrier to prevent the advance of "terrorist forces." The energy generated by Cahora Bassa would be transmitted to the apartheid regime using the new high voltage direct innovation currency method (HVDC), rather than via the conventional alternating current method. Employing this new technology, however, precluded the transmission of electricity to Mozambican consumers, who did not have the capacity to convert the HVDC to alternating current for household and industrial use. Mozambican energy, like Mozambican mine workers,⁴⁵ would now be expropriated to serve the interests of South African capital and to sustain the apartheid regime.⁴⁶

Because Cahora Bassa was, from its inception, linked to the security and developmentalist aims of Portugal and its South African ally, there was little incentive to consider environmental costs. From Lisbon's and Pretoria's perspectives, serious ecological research could only result in unnecessary delay, and, as discussed below, time was of the essence.⁴⁷

Recruiting Labor and Building Cahora Bassa

Between 1967 and 1972 the colonial state and ZAMCO instituted a crash road-building

⁴¹ *Ibid.*; Wolf Roldman, "The Zambezi Development Scheme: Cahora Bassa," *Africa Report* 4 (1974): 48-54.

⁴² Middlemas, *Cahora Bassa*, 47.

⁴³ Arquivo Histórico Diplomático de Ministério dos Negócios Estrangeiros (AHD), Processo EAA 146, Pasta 1: Domingues de Almeida, 3 June 1970.

⁴⁴ The rate was 0.3 cents per kilowatt-hours falling to 0.2 cents after 1990. ESKOM sold the energy for 0.55 per kilowatt-hour [Middlemas, *Cahora Bassa*, 78].

⁴⁵ See Ruth First, *Black Gold: The Mozambican Miner, Proletarian and Peasant* (Brighton: Harvester Press, 1983).

⁴⁶ Lisbon continued to maintain that the dam would be instrumental in developing the Zambezi region, but economic development had become a secondary consideration. While colonial authorities believed increased economic activity in and along the river would still have a trickle-down effect on small-scale African cultivators living in the Zambezi basin—mainly in the form of the introduction of new farming techniques, new markets for their commodities, and new job opportunities—these benefits were no longer necessary measures of the dam's success. The colonial state still heralded the dam as evidence of its commitment to remain permanently in Africa, but its primary effect was to extend South Africa's reach into the Mozambican countryside.

⁴⁷ Only in 1973 did the Portuguese Government belatedly create an agency, Missão de Ecologia Aplicada do Zambeze (MEAZ), under the auspices of the Gabinete do Plano do Zambeze (GPZ), for that purpose. Economic planners and ZAMCO engineers committed to completing the construction of the hydroelectric project without

program that relied heavily on forced labor. That *chibalo* (conscripted labor)⁴⁸ had long been formally abolished did not prevent coercion of peasants from surrounding communities to build these roads. Júlio Calecoetoa, an elder who lived in the region his entire life, described how African labor was exploited:

The people who constructed the roads were *chibalo* workers. There were several hundred. They came from Zumbo, Angonia, Tete, Mukumbura and Chicoa. They were forced to work. First they cut the trees, and then they removed the large rocks. The engineers were in front taking the measurements, and others were building the road in the area that they had cleared. People suffered a lot. Rocks would fall on them and many lost their legs and they would have to go to the hospital. . . . There was a white foreman who told the *capitães* [African labor overseers] and the *sepais* how much the workers had to clear each day. . . . If they failed to meet the targets *sepais* would beat the workers who they thought had been lazy.⁴⁹

Because such coercion and intimidation, combined with the imposition of a grueling work schedule, in less than a year the workers had carved out an access road to the base camp on the Songo plateau and built a track down the 3,000-foot mountainside to the gorge in less than a year. Even after the road's completion, fearsome hairpin turns, sharp bends, rainy season washouts, and periodic rockslides made the journey to the dam site treacherous. Despite these difficulties and a number of serious accidents, by 1971 approximately 500 lorries crept up and down the escarpment every day bringing heavy equipment to the dam site.⁵⁰

With road construction underway, ZAMCO officials, working closely with the colonial government, turned their attention to recruiting the labor force needed to build the dam itself. The combination of an informal Portuguese color bar⁵¹ and South Africa's Job Reservation Act⁵² dictated that labor be segregated along racial lines; Europeans had to hold all positions of authority and receive higher salaries. Whatever practical skills or on-the-ground experience African mechanics, carpenters, masons and electricians might have had, no African could occupy a supervisory post. This was so even if, as mechanic Simões Wetela recalled, a white "boss"

delay simply ignored the research from scientists, working for the GPZ, that ran counter to their grand design.

⁴⁸ The local population referred to *chibalo* as a form of slavery.

⁴⁹ Interview with Júlio Calecoetoa, Songo, 18 May 1998.

⁵⁰ *Ibid.*

⁵¹ Under 1944 legislation *assimilados* "who lived like Europeans" were to receive the European wage level. In practice, however, numerous barriers and social conventions prevented this wage equality from occurring. "Native professionals" were not permitted to compete with Europeans in the labor market or supervise whites, no matter what their level of training. [Jeanne Penvenne, *African Workers and Colonial Racism* (Portsmouth: Heinemann, 1995), 109-11].

⁵² William Beinart, *Twentieth Century South Africa* (Oxford: Oxford University Press, 2001), 155-56.

“did not understand how the machines worked and how labor was organized” and had to be schooled by his African subordinate.⁵³

Because Mozambique’s Portuguese settler community had insufficient engineers, electricians, and mechanics willing to relocate to this remote and malaria-infested corner of the colony, ZAMCO was forced to recruit such personnel from Portugal, South Africa, Germany and France. It preferred married men, who were offered housing for their families and promises that their children would receive quality educations at Songo schools—in their mother tongue, if possible. Providing up to fourteen months of wages for a single year’s labor and subsidized family airfares enabled ZAMCO, by 1973, to attract more than 150 foreign technicians from 14 countries.⁵⁴ Many had previously worked on dams or large civil engineering projects in the developing world.⁵⁵ To stabilize this skilled labor force, ZAMCO made life bearable for expatriate employees and their families by turning the forests and brush of the plateau into a comfortable racially segregated company town. The amenities that ZAMCO provided for its European labor force included modern housing at highly subsidized rents and company supermarkets, which discounted a wide variety of, imported goods. White workers also had exclusive access to a European club offering “exquisite meals,” the finest whiskies, and foreign beer at below-market prices, served on a verandah overlooking tropical gardens and a swimming pool.⁵⁶ Concerned about the potential sexual frustration of unmarried expatriate staff and colonial soldiers, ZAMCO allowed African women—from a trickle in the late 1960s to nearly 40 by 1974—to work as prostitutes.⁵⁷

These amenities were not sufficient to paper over the seething conflicts and divisions between the South African and Portuguese workers. The former were contemptuous of their Portuguese counterparts. As a foreign journalist, who spent two weeks in Songo in 1973, noted, “away from their desks and drills, the South Africans have a considerable scorn for their clients

⁵³ Interview with Simões Wetela, Songo, 27-28 May 1998.

⁵⁴ Their numbers subsequently declined to approximately 100 in 1972 and to 60 two years later.

⁵⁵ Middlemas, *Cahora Bassa*, 100.

⁵⁶ *Ibid.*

⁵⁷ Officially, ZAMCO neither acknowledged nor made allowances for their presence, restricting them to the outskirts of town opposite the airport. For security reasons, the women received identity cards; for health reasons, they were periodically examined for sexually transmitted diseases. Beyond these minimal controls, however, neither ZAMCO nor the colonial state made any effort to ensure that sex workers had minimally acceptable living and working conditions or legal recourse against abusive clients. Most came from impoverished households in southern Mozambique, drawn to the dam site by one of the few cash jobs available to rural women with little or no formal education or wage-work experience [Interview with Pedro da Costa Xavier; Interview with Simões Wetela; Interview with Padre Cláudio Gremi, Songo, 20 May 1998].

[the Portuguese] on a personal and a racial level [and many consider them] to be worse than Kaffirs.”⁵⁸ This South African disdain was visible to black employees; it was common knowledge among African workers that, in the eyes of white South Africans, “the Portuguese were whites, but they were not considered whites. They were almost like the Mozambicans.”⁵⁹ There were also “many conflicts between the Boers and the Portuguese. Boers said that the Portuguese were stupid and did not know anything.”⁶⁰ The Afrikaners also vehemently objected when Portuguese violated the racial taboos they so dearly held. “One night in the [European] township social club a Portuguese surveyor brought his new black wife to be greeted by a ripple of dismay among the rowdy tables of Afrikaners. Forks were dropped, fingers were pointed and broad muscular backs were turned. The couple sat to eat in silence.”⁶¹

Although ZAMCO’s first priority was to recruit and retain a skilled white labor force, it recognized that the dam would ultimately be built on the backs of African workers. To generate the necessary labor force, ZAMCO, often through extra-legal methods, recruited Africans into a highly regimented labor regime in which black men performed the most dangerous and physically demanding tasks, endured distinctly inferior conditions of employment, and had little ability to protest. White South African workers played the critical role in all aspects of this labor process. They recruited workers, supervised their campsites, and imposed a harsh labor regime. ZAMCO officials selected white South Africans for these tasks because they typically spoke Fanagalo, the *lingua franca* of the South African mines, and had had substantial experience overseeing and disciplining African workers there.⁶²

Initially, ZAMCO estimated that it needed to recruit 1,200 skilled African laborers annually.⁶³ Almost all of them came from other parts of Mozambique because South African labor recruiters considered the local Nyungwe, Tawara and Tonga backwards, lazy, and

⁵⁸ “The Cahora Bassa Stockade,” *The Hindu* (India), 3 June 1973.

⁵⁹ Interview with Simões Wetela.

⁶⁰ *Ibid.*; confirmed in interview with Pedro da Costa Xavier.

⁶¹ “The Cahora Bassa Stockade,” *The Hindu* (India), 3 June 1973.

⁶² The responsibilities for planning and overseeing different spheres of the dam project were assigned by nationality. French nationals specialized in civil engineering, German engineers supervised the electro-mechanical operations, and Italian workers surveyed the routes for the transmission line. Portuguese citizens initially filled most of the semi-skilled technical and low-level administrative positions [Interview with William Chambers, 1973, Middlemas Collection Tape A11 (Hoover Institution Archives, Stanford University); Interview with Antoine Brebant, 1971, Middlemas Collection, Tape A5 (Hoover Institution Archives, Stanford University); Middlemas, *Cahora Bassa*, 99].

⁶³ ZAMCO divided its African work force into skilled and unskilled. Drillers, dynamite blasters, soldiers, masons, heavy machinery operators, and truck drivers fell into the former category. Depending on the phase of the project, these workers constituted between 25 and 50% of the indigenous work force, which doubled between 1972 and 1974 [Middlemas, *Cahora Bassa*, 130].

unsuitable for all but the most menial tasks. They were, in the words of ZAMCO's chief labor recruiter, William Chambers, "poor physical specimens and unskilled."⁶⁴ Echoing this essentialist notion of the biologically determined capacities of African ethnic groups, Bill Smith, a South African ZAMCO employee who supervised African labor at Cahora Bassa, insisted that skilled positions deemed inappropriate for Europeans be reserved for "superior" Shangaan men from southern Mozambique. Because of their long experience in the South African mines, Shangaan workers had a reputation as "good Bantus, clean, proud and well motivated."⁶⁵ The tendency of Shangaan "boss boys" and instructors from the south to use their influence to secure higher paying jobs for relatives and neighbors reinforced this pattern.⁶⁶

To round up sufficient Shangaan men for Cahora Bass, ZAMCO began to encroach upon the long-standing labor reserve of the Witwatersrand Native Labor Association (WNLA) in southern Mozambique. WNLA was the official representative of the South African gold mining industry and recruited over 125,000 workers per year throughout the twentieth century.⁶⁷ ZAMCO opened two recruiting offices in Inhambane District, at Massinga and Vilanculos, and a third in nearby Gaza district, at Chibuto.⁶⁸ These three areas in southern Mozambique were home to the thousands of migrant laborers who had spent years in the mines or on white-owned farms in South Africa. Chambers himself personally supervised the hiring of the first laborers, through the use of a pre-selection screening test similar to one employed on the South African mines that weeded out those lacking the appropriate mental skills, physical attributes, and work ethic.⁶⁹ Others, with "some potential" had to participate in a technical training program before being permitted on the dam site⁷⁰—although, in reality, there was neither time nor manpower to implement it.⁷¹ Simões Wetela, a skilled Shangaan migrant worker with South African experience, described his recruitment as follows:

I had worked in South Africa as a mechanic with a machine, which went down

⁶⁴ Interview with William Chambers, 1973.

⁶⁵ Quoted in Middlemas, *Cahora Bassa*, 101.

⁶⁶ Interview with Simões Wetela; Interview with Pedro da Costa Xavier.

⁶⁷ For a discussion of the recruitment of southern Mozambican laborers, see First, *Black Gold*; Patrick Harries, *Work, Culture and Identity: Migrant Workers in Mozambique and South Africa c. 1860-1910* (Portsmouth: Heinemann, 1994).

⁶⁸ The recruitment center at Massinga drew largely from the adjacent area and Vilanculo; the office at Maxixe attracted recruits from the Inhambane and Homoine regions, and the Chibuto office focused on the Chibuto, Chicualacuala and Massingir—which were further south.

⁶⁹ Interview with William Chambers.

⁷⁰ Interview with Simões Wetela.

⁷¹ Middlemas, *Cahora Bassa*, 31.

into the tunnels and removed the rocks in the mine. Witbanks was the location and Back Block was the name of the mine [...] It was a coalmine. I was there for three contracts. After each one I returned home. After this I worked in Betanie in a quarry mine. I earned 4 Rands per month as a mechanic. I also drove mine cars. After my last tour, I heard about the possibilities of working at Cahora Bassa [...] During my last visit home, recruiters from Cahora Bassa came to my village. There were many recruiters in the region. More than fifty of us signed on [...] We were transported to Songo on a large truck. The journey lasted three days. At night we slept under the truck. We spent an additional week at the control center where they made sure that we were not thieves or FRELIMO sympathizers. We slept on the concrete; there were no tents and beds. The food was sent down there from the camp [at Songo]. Then we were given documents and assigned to a boss boy.⁷²

Despite the pseudo-scientific rigor of ZAMCO's recruitment methods, its initial efforts to attract experienced laborers were not particularly successful. Its recruiters found it difficult to compete with the local WNLA agents. Since hundreds of thousands of legally recruited Southern Mozambican workers and clandestine laborers travelled to South Africa annually, the mining industry was not about to let an interloper, such as ZAMCO, undercut, even minimally, its hegemonic position in the regional labor market.⁷³ Moreover, Mozambican workers, who had migrated to the Rand for generations, were loath to sever their ties to the South African mines.⁷⁴

To break WNLA's historic monopoly, ZAMCO advertized salaries that were higher than those prevalent on the mines. Drillers, the highest paid African laborers at Cahora Bassa, were offered over 12,000 *escudos* per month (approximately £150 sterling); truck drivers and carpenters received half that amount. These salaries were several times what men could earn working locally or from their family fields.⁷⁵ Recruiters also promised overtime pay and resigning bonuses and provided food and transportation for the recruits traveling to Tete. Additionally, the journey to Songo was less arduous and much safer than trekking on foot across the South African border, with all its legal hassles and delays.⁷⁶ Even with such incentives, however, ZAMCO had difficulty attracting enough experienced African drillers, dynamite

⁷² Interview with Simões Wetela.

⁷³ ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2: Informação, 62/71/01/2SC, 12 January 1971.

⁷⁴ Since the beginning of the twentieth century, southern Mozambique had served as a labor reserve for South Africa [See Harries, *Work, Culture and Identity, passim*; First, *Black Gold*]. As late as the 1960s, Mozambican men, like their fathers before them, regularly went to South Africa, either legally as WNLA-recruited labor or clandestinely to avoid Mozambique's dreaded *chibalo*, which continued under various guises throughout the period of Portuguese colonial rule.

⁷⁵ Interview with Shangaan Headman, n.d., Middlemas Collection Tape A11 (Hoover Institution Archives, Stanford University); Middlemas, *Cahora Bassa*, 102-3.

blasters, and heavy machine operators.⁷⁷

ZAMCO recruiters pursued several additional strategies in southern Mozambique to overcome this shortfall. They supplemented the modest salaries of colonial administrators with gifts and favors and offered clothing, bicycles and other incentives to state-appointed chiefs to encourage them to “find” additional labor for Cahora Bassa. These strategically placed authorities, who often enjoyed unchecked power on the ground, might encourage or pressure African men in their jurisdictions to sign with ZAMCO rather than WNLA. Recruiters also used deception to expand the pool of new workers. At the office in Chibuto, for example, Jaime Chitsotso and twenty others voluntarily signed a contract with ZAMCO, based on promises by recruiters of high-paying construction positions at the dam site. When they arrived at Songo, however, there were no construction jobs waiting for them; instead, they were ordered to report to ERMOQUE, a ZAMCO subsidiary, to work on the road from Tete to Songo, at substantially lower wages. Chitsotso initially refused, but, being far from home, penniless, and without a local network of social support, he soon realized he had no alternative.⁷⁸ Chambers also brought in Pondo workers from the South African mines, whose skills were legendary, to excavate pilot shafts, cut through dangerously unstable rocks underneath, and burrow out the hangar-sized chamber needed to house the generators, controls, and massive turbines.⁷⁹

Despite disdain for the local Tawara, Tonga, and Nyungwe who lived near the dam, ZAMCO had to employ them to fill in the ranks of its African work force. With overtime, their starting wage hovered around 900 *escudos* per month, almost £9 sterling.⁸⁰ These men, who had little access to formal education or industrial experience, mostly performed unskilled menial tasks—road crew laborers, stone haulers, masons’ assistants, cooks, and gardeners—and worked as domestic servants for the Europeans.⁸¹ To Chambers’ surprise, however, the Nyungwe proved to be “good carpenters.”⁸²

Desperation motivated many to take these low-paying jobs. Because Tete District was

⁷⁶ Interview with Shangaan Headman; Interview with Simões Wetela.

⁷⁷ ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2: Informação 62/71/01/2SC, 12 January 1971.

⁷⁸ Eleú시오 dos Prazeres Viegas Filipe, “The Dam Brought Us Hunger” (M.A. dissertation, University of Minnesota, 2003), 37-8.

⁷⁹ Middlemas, *Cahora Bassa*, 133. Europeans and Africans alike “expressed open admiration for [the Pondos’] skill in this work” [*Johannesburg Star*, 28 December 1978].

⁸⁰ AHM, GG, Cx.860: GPZ, “Relatório da Actividade de 1971,” n.d.; Middlemas, *Cahora Bassa*, 130.

⁸¹ ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 1: Delegação de Moçambique, 2013/7-DI/2, 6 September 1970; Interview with António Andrade *et al.*, Songo, 11 July 2001; Interview with Maurício Alemão, Masecha, 27 May 1998.

impoverished, unless men left the area, they could not earn enough both to pay their annual taxes and to buy the minimal consumer goods—such as sugar, rice, and clothing—needed for their households’ survival. The escalating liberation struggle, however, made it increasingly difficult to migrate across the border to work on farms and mines in Rhodesia.⁸³ As Ereman Conforme, who came from nearby Chipalapala, bluntly explained: “I went to work in Songo because I needed money to eat.”⁸⁴ Fausto Semo echoed this sense of despair: “The salaries were very low. But when a person is poor, you take even a little bit of money, so you can buy food for your family and clothes for your children.”⁸⁵ Others sought employment in Songo to avoid the threat of *chibalo*.

Whatever one’s job classification, work at the dam site was long, hard and dangerous. It began before 7 a.m., after a short breakfast of porridge, bread and tea,⁸⁶ and typically lasted for eight to ten hours;⁸⁷ once laborers completed their assigned tasks, they were replaced by a second shift, which often extended into the early morning. When necessary, a third shift was added.⁸⁸

Employing workers around the clock allowed South African overseers to compensate both for delays resulting from periodic shortages of concrete and for unanticipated technical problems caused by unusually deep fissures in the rocks.⁸⁹ ZAMCO demanded that construction follow the schedule, no matter the cost. One South African overseer characterized the tyranny of work as follows: “Life at Cahora could be summed up in three words—you work, eat and sleep. It’s a never-ending cycle with little variation.”⁹⁰ Many exhausted African workers suffered even more. “The night shift,” one recalled, “was very, very difficult—that is to say, there were many accidents. A number of sleep-deprived workers lost their lives.”⁹¹

ZAMCO’s serious time constraints put unrelenting pressure on Africans to work both longer and harder. To increase productivity, it used both legal and extra-legal practices. South African labor overseers, and their African *capitães* extended the workday, harangued workers,

⁸² Interview with William Chambers.

⁸³ Interview with Júlio Calecoetó; Interview with Senteira Botão *et al.*, Chipalapala, 26 May 1998.

⁸⁴ Interview with Ereman Conforme, Chipalapala, 26 May 1968.

⁸⁵ Interview with Fausto Semo, Chipalapala, 12 July 2001.

⁸⁶ Interview with Pedro da Costa Xavier.

⁸⁷ Interview with Ereman Conforme.

⁸⁸ Interview with Ezani Sipinyo, Estima, 21 May 1998; Interview with António Andrade *et al.*; *Século*, 4 August 1970.

⁸⁹ Interview with Antoine Lampière 1973, Middlemas Collection Tape A11 (Hoover Institution Archives, Stanford University).

⁹⁰ Quoted in *Rhodesian Herald*, 4 December 1972, 5.

⁹¹ Interview with António Andrade *et al.*

and often disregarded prohibitions against corporal punishment.⁹² The *capitães* played a critical role in this process—they translated orders from their superiors into Fanagalo and then brutally enforced them. Anxious to assert their authority and to please the overseers, they often “used the *chicote* [hippo-tail whip] or *palmatorio* [a wooden paddle with sharp, pointed ends] to force us to work harder.”⁹³

Such arbitrary violence, however, made sense to the labor overseers, white and black, who believed that not working hard was proof that Africans were under the influence of “terrorists.” Because the secret police feared that FRELIMO agents had received falsified identity documents and infiltrated the dam workforce, they were continually on the watch for Africans behaving “suspiciously.”⁹⁴ António Andrade stressed that the police “had many, many spies among us. We were afraid to even mention the name FRELIMO. If they heard, you would be arrested and could be killed.”⁹⁵ Those arrested were taken to the notorious PIDE prison at Monte Bona, where the worst cases of torture took place.⁹⁶ Some accused “terrorists” were bound and thrown into the crocodile-infested River and their bodies were never found.⁹⁷ The horrific acts described time and again by former workers suggest that brutality, humiliation, and a culture of terror were intrinsic to the system of domination.

The harsh and hazardous working conditions drove some locally recruited laborers to flee, although this, too, was dangerous. Numerous security check points, the ever-present threat of capture by military patrols, the double barbed-wire fences that enclosed Songo, and the large minefields surrounding the dam site were all powerful deterrents. These dangers notwithstanding, “[t] here were some recruits,” as Ereman Conforme recalled, “who ran away after working for only two months, when they heard that a fellow worker had died.” Others, he continued, “would stay less than a year.... Those who worked for a year or two were very courageous. The salary was not enough for the kind of work we did. The job kills.”⁹⁸

For the vast majority who did not flee, segregated housing, never formally inscribed into

⁹² Interview with Padre Cláudio Gremi; Interview with Júlio Calecoetoa; Interview with Peter Size & Fedi Alfante, Chinyanda Nova., 25 May 1998.

⁹³ Interview with António Andrade *et al.*

⁹⁴ ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 1: Informação, 1-073-CI(2), 14 August 1970; ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2; Informação, 139-CI(2), 10 June 1972.

⁹⁵ Interview with António Andrade *et al.*

⁹⁶ Interview with Padre Cláudio Gremi.

⁹⁷ *Ibid.*

⁹⁸ Interview with Ereman Conforme.

law in Mozambique⁹⁹ or imposed through mass removals or the construction of African townships, as was the case in South Africa, existed in Songo. Whereas, for its European staff, ZAMCO erected homes, ranging from modest bungalows to plush residences, it spent as little as possible on housing for Africans. Most were packed into galvanized huts located on the edge of the plateau in a barren area known as COTA 90 about a mile from the European areas.

According to Pedro da Costa Xavier, the tin shacks were stifling in summer, freezing during winter nights, and deafeningly noisy when it rained.¹⁰⁰ There were no toilets, hot water or other basic amenities, and workers had to buy their own blankets at the company store. Each hut had multiple bunk beds crammed into it, and men slept in shifts to maximize space. Padre Gremi, an Italian priest who regularly visited his African parishioners in COTA 90 reported the following:

I can only talk about the African camps down there, halfway towards the dam.

There is a valley called “Grande Buraco” [the Big Hole COTA 90]. Three thousand workers lived there, but there was not enough space for three thousand people. . . .They would cram twelve workers into a hut. The huts were approximately two bed lengths and three or four meters in width. There were two or three bunk beds against each wall. . . .It was such a small place people could not even breathe properly. It was a very bad life.¹⁰¹

ZAMCO also economized on food rations for its African workers who ate separately from the Europeans. While the latter received subsidized food allowances and had access to a wide array of imported foods and wines, African rations were grossly inadequate. For all African workers in Mozambique, minimum daily food requirements—of porridge, bread, sugar, tea, a small amount of meat, and periodically *pombe*,¹⁰² which South Africans derisively called “bantu beer”—were theoretically, but rarely actually enforced by government officials stationed at the dam.¹⁰³ This food was of inferior quality and poorly prepared. Simões Wetela described

⁹⁹ Segregation in Mozambique was achieved without resort to overtly racialized laws. Instead, in the major cities such as Lourenço Marques, wage suppression, building codes, and racist leasing practices effectively created the European “City of Cement” and the African shantytowns, called *subúrbios* or *caniço* (city of reeds). In Lourenço Marques these two cities came flush against each other in the 1960s at Agenda Caldas Xavier, a notorious red light district. By then, “grey areas” had also emerged, where mulattoes, Asians and poor whites lived side-by-side. (see David Morton , “From Racial Discrimination to Class Segregation in Postcolonial Urban Mozambique “ in *Geographies of Privilege* (New York: Routledge: 2013), France Winddance Twine and Bradley Gardener eds., 231-62.

¹⁰⁰ Interview with Pedro da Costa Xavier.

¹⁰¹ Interview with Padre Cláudio Gremi; Interview with António Andrade *et al.*

¹⁰² Isaacman, *Cotton*, 122.

¹⁰³ Interview with Júlio Calecoetoa.

the barely edible meals with disgust. “It was food only for pigs.”¹⁰⁴

African laborers had no formal mechanisms for protesting abuses by European staff, much less the harsh working and living conditions that were an integral part of Cahora Bassa’s labor regime. While colonial and ZAMCO officials silenced public dissent through physical beatings and intimidation, they could not entirely eliminate worker protests.¹⁰⁵ On May 20, 1974, for example, African workers defied the labor overseers and staged a strike to protest their low wages and inadequate rations. Most refused to report to work, and an angry group pummeled to death two well-known African spies.¹⁰⁶ Others “broke into the food warehouses and took rice, potatoes, bananas, oil and everything that was in it.”¹⁰⁷ Their principal target was the South African Bill Smith, whom they wanted to kill “because he mistreated people, beat them and continually insulted them.”¹⁰⁸ Workers marched *en masse* toward his home. Terrified and humiliated, Smith only managed to escape by dressing up as a woman. In an act rich with symbolism, frustrated strikers then killed Smith’s pet baboon, which they detested because it received far better food than they did. Although Portuguese soldiers in armored cars quickly suppressed the strike and reestablished control over the African compounds, the workers had made their point. ZAMCO agreed to increase rations of meat, fish, sugar, fruit and cooking oil, and laborers received a modest pay raise.¹⁰⁹

There was, however, a more immediate threat to Cahora Bassa. In 1968, FRELIMO launched a major military and diplomatic campaign to thwart, or at least make more costly, the construction of the dam. From the outset Eduardo Mondlane, FRELIMO’s first president, underscored that there was not only a battle against Portuguese colonialism but also one against the unholy alliance between Pretoria and Lisbon.¹¹⁰ He labeled Cahora Bassa the critical terrain of anti-colonial struggle on the continent: “If we do not destroy this dam, it will destroy us, and the white regimes and racists in Africa will win definitively.”¹¹¹

¹⁰⁴ Interview with Simões Wetela; Interview with António Andrade *et al.*

¹⁰⁵ Interview with Peter Size & Fedi Alfante.

¹⁰⁶ Interview with Simões Wetela.

¹⁰⁷ *Ibid.*

¹⁰⁸ Interview with Padre Cláudio Gremi.

¹⁰⁹ *Ibid.*; Interview with Pedro da Costa Xavier; Interview with Maurício Alemão; Interview with Júlio Calecoetoa. After the Luaksa Accords in 1974, FRELIMO delegations regularly visited the dam and reminded the workers that they could not strike or engage in work slowdowns. One guerrilla commander announced to 3000 African workers: “I have not fought a war for 10 years to hear complaints about 12,000 escudos salary. The dam must be finished on time” [“Plenty of power - not a drop of glory,” *Guardian* (Great Britain), September 27, 1974].

¹¹⁰ Eduardo Mondlane, *The Struggle for Mozambique*, (London: Zed Press, 2d ed., 1983), 98.

¹¹¹ ANTT, PIDE/DGS, SC, CI (2), Proc.8743, Pasta 2: Eduardo Mondlane, “Cahora Bassa Contra O Colonialismo

Two years later, reports from Portuguese spies, who had infiltrated the FRELIMO military base at Nachingwea, Tanzania, confirmed its intention of targeting the dam.¹¹² In Lisbon and Pretoria security officials were particularly concerned that the guerrillas were receiving modern weapons and instruction from Soviet and other Eastern Bloc advisers as well as from the Chinese, that they could use to attack Cahora Bassa. One top-secret intelligence report claimed that Russian and Yugoslav commandos had trained guerillas in the use of highly sophisticated explosives for use against the dam.¹¹³ Another strategic assessment, sent directly to the Council of Ministers in Lisbon, cited evidence that the Soviet Union had offered the “terrorists” high-speed boats based in Zambia, so that they could travel by boat to unguarded sites on the Zambezi’s edge, from which they could launch bazooka and mortar attacks on Cahora Bassa.¹¹⁴ There were even reports that FRELIMO had acquired portable DKZ-B Soviet missiles, which, with a range of up to twelve kilometers, would pose an obvious threat to the structure itself.¹¹⁵ Portuguese military officials shared this and other intelligence with thier South African and Southern Rhodesian counterparts.

Of immediate concern to Pretoria and Salisbury was whether Portuguese colonial forces could contain FRELIMO’s advance. FRELIMO’s offensive created new possibilities for Zimbabwe African National Union(ZANU) and the African National Congress both of whom worked in tandem with the Mozambicans. ZANU used Mozambican operation bases for forays into Rhodesia and some of their soldeirs fought side by side with FREL IMO guerrillas.¹¹⁶ Although direct military cooperation between the ANC and FRELIMO was more circumspect, there was deep concerns in Pretoroia about the outcome of the conflict afgter the guerrillas crossed the Zambezi .¹¹⁷South African military intelligence expressed alarm in 1972 after the guerrillas had come within twenty kilometers of the dam¹¹⁸ and Rhodesian observers opined that FRELIMO’s ability to open a new front in Tete “[was] serious and carrie[d] grave military and political dangers for all[white dominated] Southern Africa in the longer term.”¹¹⁹ South African

Contra A Guerra Colonial,” n.d.

¹¹² ANTT, PIDE/DGS, SC, CI (2), Proc.8743, Pasta 1: “Informação,” 1.127-CI (2), 27 August 1970.

¹¹³ ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2: “Relatório,” 388/71/DL/2/SC, 22 February 1971.

¹¹⁴ ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2: “Informação,” 140-CI(2), 27 January 1971.

¹¹⁵ Middlemas, *Cahora Bassa*, 154; ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2: “Informação,” 834-CI(2), 19 August 1972.

¹¹⁶ Henriksen, *Revolution and Counterrevolution*, 172

¹¹⁷ *Ibid.*

¹¹⁸ *Rhodesian Herald*, 19 May 1972.

¹¹⁹ *Ibid.*, 21 June 1972.

military authorities often expressed contempt for the fighting ability of Portuguese soldiers, to whom they commonly referred as “half pissed peasants.”¹²⁰

Senior Portuguese, South African and Rhodesian military officers who met regularly agreed that they needed amore concerted joint efforts to combat FRELIMO, ANC and ZANU¹²¹ advances in the Zambezi Valley. To achieve this goal, in 1971 they signed the Alcora Agreement, which affirmed their commitment to use all military force necessary to blunt the “terrorists.”¹²² Although FRELIMO claimed that Pretoria had stationed a battalion of its troops in Chioco, located slightly inland from the river on its southern margins, and had billeted several companies of counter-insurgency forces adjacent to the dam site,¹²³ there is no independent verification of such a large military presence in the region. Instead, the apartheid regime, anxious to maintain a low profile, probably “rotated about two hundred to three hundred paramilitary policemen to the south bank of the Zambezi near the construction site beginning in 1968. Their missions were said to have entailed protecting the dam, supporting the right flank of Rhodesia’s northeast triangle and gaining experience in anti-guerrilla techniques.”¹²⁴ Portuguese army officers who deserted to Sweden also reported that South African helicopters transported Portuguese forces into the war zone.¹²⁵ It is also quite likely that members of the South African Defense force were integrated into Rhodesian counterinsurgency units fighting in relative proximity to the dam.¹²⁶ Whatever the actual level of Pretoria’s military involvement, there is no doubt that South Africa understood the strategic importance of Cahora Bassa and the Zambezi. A General in the South African Defense Forces put it bluntly: “We prefer to defend South Africa on the banks of the Zambezi rather than on our own frontier.”¹²⁷

The South African and Rhodesian assistance, combined with a substantial increase in Portuguese troops and the creation of a defensive perimeter around the dam,¹²⁸ ultimately

¹²⁰ “The Cahora Bassa Stockade” *The Hindu* (India), 3 June 1973; confirmed in an interview with Horst Langer.

¹²¹ ZANU stands for the Zimbabwe African National Union which, along with the Zimbabwe African People’s Union (ZAPU), was fighting for Zimbabwe’s independence.

¹²² Middlemas, *Cahora Bassa*, 280-84.

¹²³ Frente de Libertação de Moçambique, “Armed Struggle in Tete,” *Mozambican Revolution*, April, 1968, 2.

¹²⁴ Thomas Henriksen, *Revolution and Counterrevolution: Mozambique’s War of Independence, 1964-1974* (Westport: Greenwood Press, 1983), 179. See also Bridget Bloom, “South African Troops Guarding Cahora Bassa,” *Financial Times* (London), 20 June 1973; Interview with William Chambers.

¹²⁵ *The Times* (Great Britain), 23 December 1970.

¹²⁶ Henriksen, *Revolution and Counterrevolution*, 179.

¹²⁷ Adrian Hastings, *Wiryamu* (London: Search Press, 1974), 10.

¹²⁸ A British journalist, Bruce London, who visited Cahora Bassa in 1972, described the military preparations as follows: “Around the entire perimeter of the dam site...runs a double wired fence. And within this is what must be counted one of the largest minefields laid in recent times—85,000 mines. Two in every yard around the site. Gun

deterred any FRELIMO attack on the dam site itself. The guerrillas did destroy a number of trains and trucks bringing construction materials and other supplies to Cahora Bassa, along with a number of electrical pylons intended to transmit energy to South Africa—a harbinger of what was to come. Moreover, by 1972, there were over 2,000 guerrillas operating in small bands on both banks of the Zambezi—demonstrating that the man-made lake had failed to keep the liberation struggle contained in northern Mozambique.” To the consternation of South African and Rhodesian military authorities, the guerrillas were moving steadily southward.¹²⁹

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Cahora Bassa and The Disruption of Riparian Communities : An Overview

As a result of the energy alliance between Pretoria and Lisbon, Cahora Bassa converted water, a free common resource necessary for the survival of all life in the Lower Zambezi River Valley, into an export commodity to meet the energy needs of apartheid’s mines, industry cities and farms. From the moment that the dam’s massive steel gates closed in late 1974, South Africa’s needs dictated the timing, frequency, duration and magnitude of water released from the dam. The economic and ecological consequences for the riparian communities living adjacent to the flood plains were devastating. We have discussed these issues in detail in our recent book *Dams, Displacement and the Delusion of Development*. For the purpose of this article three points are particularly germane.

First, to avoid the immediate destruction of alluvial farming, the environmental scientists involved in the ecological impact studies of Cahora Bassa, recommended that the dam be filled slowly over a three or four year period, as had been done at Kariba. The Portuguese-led environmental research team was also adamant that the reservoir’s filling should be timed to match normal dry and wet season flows and that the release of water should never drop below 400 to 500 cubic meters per second, which would have allowed local agriculture to be minimally sustainable. This position, however, ran counter to the demands of the Portuguese and South

crews manning heavy artillery are on duty round the clock at strategic points overlooking Cahora Bassa and the construction camp a little above it at Songo, where more than 3,000 black and white workers live, [with] the guns facing out to points from which guerrillas could come. General Kauzla de Arriaga, Mozambique’s commander in chief and the mastermind behind the defense of Cahora Bassa, believes that the site is now virtually impregnable.” [AHD, Processo EAA 195, Pasta 1A (1972-1974): draft of 1972 article written by Bruce London of the *Daily Telegraph*.]

¹²⁹ ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 1: “Informação,” 1.196-CI(2), 8 September 1970; ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 1: “Informação,” 635/7/D1/2/SC, 6 April 1970; ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2: DGS RÁDIO, 31 March 1971; ANTT, PIDE/DGS, SC, CI(2), Proc.8743, Pasta 2: “Relatório,” 1824/70/D1/2/SC, 11 September 1970.

African militaries, enshrined in the original contract, that the dam be operational and the reservoir filled by the end of 1974. Since the structure was only completed shortly before then, the authorities disregarded the advice of the experts and rushed to fill the reservoir as quickly as possible. Without advance warning to downriver communities, dam engineers cut off river flows downstream of the dam for four months from December 1974 to March 1975, reducing the river to little more than a trickle. With the closing of the dam's gates, the flow rate of the Zambezi dropped to less than 60 cubic meters per second and remained there for more than three months, a rate less than 1% of the normal discharge of approximately 8,000 cubic meters per second at that time of year. By shutting off the river, ZAMCO abruptly disrupted the annual flood cycle and prevented the replenishment of nutrients in alluvial soils on which farmers downriver had relied for centuries. The timing was devastating, since it occurred during precisely those months when the Zambezi flow peaked.¹³⁰

Fearing that the reservoir filled too quickly and might overflow Cahora Bassa's walls, dam operators reversed course in April 1975 and precipitously released a massive flow of water without any warning to the riparian communities downriver. The results were catastrophic. Villages were flooded, local drinking water was contaminated, and many cattle, goats and other livestock were swept away.¹³¹

Secondly Cahora Bassa's flow-management scheme, designed to maximize electricity production, disrupted the river's historical flow regime, eliminating rainy season flooding in most years and drastically increasing dry season flows. The pronounced seasonal variations in the flow of the river, that for centuries had deposited valuable nutrients critical for the farming systems and then receded, thereby enabling peasants to work the land, disappeared.¹³² In a region where rainfall was low and unpredictable, the loss of these rich alluvial soils was devastating.

Harnessing the Zambezi also altered the natural work of the river by severely diminishing the nutrient content of the water flowing downstream from Cahora Bassa. The dam trapped rich

¹³⁰ Davies, "They Pulled the Plug Out of the Lower Zambezi", *African Wildlife*, 29 no.2(1975,26-28.

¹³¹ Peter Jackson, "Ecological Studies on the Middle Zambezi prior to Kariba and Cahora Bassa and the Need for Surveys of the Lower Zambezi prior to the Creation of Further Hydroelectric Dams," Paper presented at the Workshop Sobre O Uso Sustentavel da Barragem de Cahora Bassa e do Vale do Rio Zambese, Songo, Mozambique, 29 September-2 October 1997.

¹³² Richard Beilfuss, "Modeling Trade-offs between Hydropower Generation and Environmental Flow Scenarios: A Case Study of the Lower Zambezi River Basin, Mozambique," *Int'l Journal of River Basin Management* 8, 2 (2010): 331-47; Richard Beilfuss and Cate Brown, "Assessing Environmental Flow Requirements and Trade-offs for the Lower Zambezi River and Delta, Mozambique," *Int'l Journal of River Basin Management* 8, 2 (2010): 127-38.

organic and non-organic material that had previously been carried downriver and deposited in the floodplains during rainy season flooding. These nutrients had sustained both downstream aquatic ecosystem and human societies for centuries. In 1984, a team of United Nations ecologists concluded that the new regulated flow regime ushered in by the dam had been “catastrophic” for downstream wetlands, where vegetative growth and animal populations depended on the annual flooding that brought nutrients and sediments. They attributed this dire situation to a lack of environmentally thoughtful planning by both the colonial and post-colonial states:

[I]n the case of Cahora Bassa there was no serious attempt to ecologically optimize the dam prior to construction. . . .Furthermore after [the] dam closure, proposals put forward by the ecological assessment team were not implemented and there has been no regular monitoring of the dam’s downstream effects during its lifespan. As a result, Cahora Bassa has the dubious distinction of being the least studied and possibly least environmentally acceptable major dam project in Africa.¹³³

Because the dam prevented most of the sediment from travelling downriver, the mineral-free waters sought to recapture their sediment load as they travelled downstream by eroding the bed and banks of both the Zambezi River and its fertile low-lying islands. Its erosive powers increased even though it flowed at lower levels than in the past. As Paulo Mayo, an elderly farmer, noted, “The river. . .is changing very fast. It is growing in its width and it is losing more water most of the time.”¹³⁴ Many others similarly described what scientists call “silt hunger.”¹³⁵

Finally, Cahora Bassa undermined the twin pillars of the local economy: fishing and farming. The sharp reduction in the volume of rainy season water and the deepening of river channels caused by erosion combined to reduce the quantity of water that overflowed the banks and, thus, the areas that were regularly inundated. Deprived of water and sediment, the once extensive stretches of productive floodplains shrank or disappeared altogether. And those who

¹³³ Garry Bernacsek & Suzette Lopes, “Cahora Bassa,” in *Status of African Reservoir Fisheries*, ed. M. Kapetsky & T. Pet (Rome: United Nations Food and Agricultural Organization, 1984), 30.

¹³⁴ Interview with Paulo Mayo, Chikoti, 24 May 2000.

¹³⁵ Interview with Zhuwa Valera and Pereira Msitu, Tizola T/A Kambembe, 6 May 2000; Interview with Artur Medja, Augusto Jone, and Zeca Saísse, Regulado Chave, 19 July 2000. Scientists working for the Gabinete do Plano do Zambeze (GPZ) predicted large-scale erosion in a 1974 report [See Bryan R. Davies *et al.*, “Cahora Bassa Retrospective 1974-1997: Effects of Flow Regulation on the Lower Zambezi River,” *Verh. Internat. Verein. Limno.* 27 (December 2000): 1-9].

continued to farm on the river's edge or on low-lying islands faced the possibility that the dam's unpredictable discharges would wash away seeds, rot crops, or even devastate entire gardens. Maria Faira expressed the widespread view that "people are not happy with Cahora Bassa. How can we be, since all our maize fields are eaten away?"¹³⁶ Throughout the valley, women and men described the dangerous uncertainty that was now part of daily life. According to Zhuwa Valera, "Sometimes our gardens are washed away unexpectedly. You may have them one year but in another year you lose them. . . . People are really suffering."¹³⁷ Maria Faira put it even more bluntly: "Cahora Bassa has given us hunger."¹³⁸

These devastating consequences of the dam were compounded by South Africa's destabilization campaign. The Zambezi River Valley would become one of the apartheid regime's critical targets as it sought to strangle Mozambique whose independence became a powerful symbol and a source of hope for millions of oppressed South Africans.

South African Destabilization and FRELIMO's Failure to Domesticate Its White Elephant

On June 25, 1975 Mozambique became free. FRELIMO was now arguably in a position to transform Mozambique's distorted economy, which, hopefully, would also reduce the country's dependence on South Africa's apartheid regime.¹³⁹ State planners, committed to large-scale social engineering, were confident that, over time, Cahora Bassa would play a pivotal role in developing the Zambezi Valley and improving the lives of the millions of Mozambicans who lacked electricity. Together with the organization of a network of state farms and communal villages, Cahora Bassa would, in the Marxist parlance of FRELIMO, be instrumental "in the socialization of the countryside." President Machel was adamant on this point:

We cannot irrigate without energy. The electrification of the central area of the north and of the south of our country is fundamental for us to be able to meet the needs of agriculture. We must domesticate the "white elephant" Cahora Bassa. This "elephant's" ivory—electricity and irrigation—should go to our agriculture and industry. . . . Within the next decade the north bank power station [at Cahora Bassa] must begin functioning

¹³⁶ Interview with Maria Faira, Savieli Village, Nsanje, 18 April 2000.

¹³⁷ Interview with Zhuwa Valera and Pereira Msitu.

¹³⁸ Interview with Maria Faira.

¹³⁹ The FRELIMO regime inherited "a bankrupt and backward country, technical constraints (e.g., few trained or experienced Mozambicans), and an exaggerated economic dependence on the apartheid South Africa" [Merle Bowen, *The State against the Peasantry: Rural Struggles in Postcolonial Mozambique* (Charlottesville, VA: University Press of Virginia, 2000), 11].

[for the Mozambican people] and numerous dams must be built for irrigation and electrification.¹⁴⁰

Domesticating the “white elephant” was made more difficult because Mozambique did not exercise control over the dam. Under the 1974 Lusaka Peace Accord, Lisbon assumed responsibility for the \$550 million debt incurred in building the dam and owned 82% percent of the hydroelectric project, while the Mozambican state held approximately 18% of the shares. Until the new government purchased a majority of the stock through its portion of the sale of electricity, the Portuguese parastatal, Hidroelétrica de Cahora Bassa (HCB), rather than the Mozambican state, would retain effective control over the hydroelectric project.¹⁴¹ For its part, South Africa continued to pay the colonial rate for the dam’s electricity, which was less than one half the world price.¹⁴² Although Mozambique had the right to use up to 18% of the dam’s output, its total energy requirement was half that amount, further complicating FRELIMO's efforts to harness the hydroelectric project for domestic purposes. Moreover, the cash-starved nation lacked the capital to develop the agricultural and industrial sectors that, as envisioned in the original planning documents for the dam, could utilize the energy it produced.

Despite these constraints, the government did undertake a number of new economic initiatives so that Cahora Bassa would not simply be a source of cheap energy for the apartheid regime. In 1978 it began building power stations to provide energy from the dam to the provincial capital of Tete and the nearby coalmines at Moatize, the largest in the country. Two years later, Cahora Bassa was supplying electricity to Tete, whose obsolete thermal power station burned up to 20,000 tons of coal annually, and to the colliery, which had relied on imported diesel for its generators.¹⁴³ At the same time, the National Water Commission announced plans to use the water stored by the dam to help irrigate more than 210,000 hectares of choice farmlands in the Lower Zambezi Valley.¹⁴⁴

These proposed projects were insignificant, however, compared with plans to build a second set of transmission lines and sub-stations on the northern banks of the Zambezi at the

¹⁴⁰ Agência de Informação de Moçambique [AIM], *Information Bulletin* 38 (1979): 6.

¹⁴¹ The consensus was that each year Mozambique would be able to buy back between 4-5% of the shares and over a twenty-year period it would become the sole owner of the dam.

¹⁴² “Cabora - new energy hope for S. Africa,” *Star Weekly* (South Africa), December 1, 1973; “Concluido acordo de Cabora-Bassa,” *Diário de Noticias*, April 24, 1984.

¹⁴³ AIM, *Information Bulletin* 47 (1980): 18.

¹⁴⁴ AIM, *Information Bulletin* 63 (1981): 16.

dam site.¹⁴⁵ The new energy system would provide cheap energy to the densely populated provinces of Zambezia and Nampula, located on the coast in the northern reaches of the country. Both were major agricultural zones that produced most of the country's cotton, tea and sugar for export. Zambezia was also a major food producing area. These provinces were also of strategic political importance, because FRELIMO had mounted a very intense campaign in this area to pressure reluctant peasants to join communal villages.¹⁴⁶ One of the incentives that the state held out to the populace was the promise of Cahora Bassa electricity.¹⁴⁷ In 1980 the government signed a multi-million dollar agreement with France and Italy to begin the first phase of the project, which was to be completed two years later.¹⁴⁸

Before these projects could get underway, however, South Africa intensified its destabilization¹⁴⁹ of the FRELIMO regime, effectively paralyzing them. Within six months of Mozambique's independence in 1975, Rhodesian security forces working with their South African counterparts, created RENAMO and trained and armed it. Between 1976 and 1979 Mozambique suffered from more than 350 RENAMO and Rhodesian attacks.¹⁵⁰ The apartheid regime's undeclared war against Mozambique and RENAMO's role as South Africa's principal weapon was part of a broader strategy to ensure Pretoria's hegemony over the southern African region, to defend its political and economic interests, and to force Mozambique to sever military ties to the ANC.

With the fall of the Rhodesian government in 1980 and the independence of Zimbabwe, the apartheid regime transferred RENAMO headquarters and bases from Rhodesia to the Transvaal, a northern province of South Africa adjacent to Mozambique. South African security treated RENAMO as a surrogate army, providing it with large supplies of war materials,

¹⁴⁵ See Ministry of Energy, Sweden SWECO/Swed Power, *Cahora Bassa Hydroelectric Power Scheme- Stage II* (Stockholm: SWECO, 1986)

¹⁴⁶ C. Geffray, *A Causa das Armas* (Porto: Afrontamento, 1991).

¹⁴⁷ Allen Isaacman and Barbara Isaacman, *Mozambique from Colonialism to Revolution, 1900-1982* (Boulder, CO: Westview Press, 1993), 155.

¹⁴⁸ AIM, *Information Bulletin* 47 (1980):18.

¹⁴⁹ This was part of a larger regional campaign known as "total onslaught" directed by the increasingly powerful state military and security apparatus under the administration of Prime Minister Botha. The main targets were Mozambique and Angola, but South African Defense force also engaged in cross-border raids against Botswana, Swaziland and Lesotho.

¹⁵⁰ For a history of RENAMO see W. Finnegan, *A Complicated War* (Berkeley: University of California Press, 1992); M. Hall and T. Young, *Confronting Leviathan: Mozambique since Independence* (London: C. Hurst and Co., 1997); A. Isaacman, "Conflict in Southern Africa: The Case of Mozambique," in R. Hunt Davis, ed., *Apartheid Unravels* (Gainesville, FL: University of Florida Press, 1991), 183-212; A. Vines, *RENAMO: Terrorism in Africa* (London: James Currey, 1991).

including rockets, mortars and small arms, critical logistic support, and military instructors. The latter, according to the RENAMO leader, Alfonso Dhlakama, would “not only teach but also participate in the attacks.”¹⁵¹ By 1981, RENAMO forces were being transported into Mozambique by South African helicopters and being re-supplied from airdrops and naval landings along Mozambique’s expansive coast.¹⁵²

Cahora Bassa’s 4,000 pylons that cut across 900 kilometers of remote countryside were an especially inviting target. At first glance, attacking the pylons might seem counterproductive, since they transported energy to South Africa. Viewed from the perspective of Pretoria’s broader regional destabilization strategy and its commitment to punish Mozambique for its support of the ANC, such attacks made perfect sense to military planners. Since FRELIMO was politically vested in Cahora Bassa’s potential to transform the countryside, paralyzing the hydroelectric scheme underscored Mozambique’s vulnerability. These incursions also enabled both the RENAMO leadership and the apartheid regime to claim that RENAMO was a legitimate nationalist movement opposed to the Marxist policies of FRELIMO, rather than simply Pretoria’s puppet.¹⁵³ Moreover, since Cahora Bassa never provided more than 7% of South Africa’s energy, the domestic consequences for the apartheid regime were relatively minor.¹⁵⁴

RENAMO’s sabotage of the power lines was easy, since the Mozambican government lacked the military capability to protect them. By 1981, RENAMO forces, assisted by the South African officers, had dynamited pylons near Espungabera, reducing electricity exports by 50%. It took six months to repair them.¹⁵⁵ During the next four years, RENAMO regularly destroyed power lines and towers and mined the adjacent areas, making it virtually impossible for the government to repair them. As a result, power transmitted from Cahora Bassa had slowed to a trickle by January 1984. For FRELIMO, this proved to be a financial nightmare. Not only did it not have the resources to repair the pylons but, with no electricity being exported to South Africa, it was not able to repay Portugal—a precondition to gaining ownership of the hydroelectric project.

¹⁵¹ Alfonso Dhlakama, “Relatório Referente a Sessão do Trabalho de R.N.M e do Representativo do Governo Sul Africano,” MNR Document, 25 October 1980.

¹⁵² Hall and Young, *Confronting Leviathan*.

¹⁵³ Vines, *RENAMO*, 26-28; R. Domingos, Untitled summary of conversations with Orlando Christina. RENAMO document. Zoabostad, 4 November 1980.

¹⁵⁴ Vines, *RENAMO*, 27.

¹⁵⁵ AIM, *Information Bulletin* 58 (1981): 13.

From Pretoria's perspective, the pylons were not only an easy target but also a powerful form of economic black mail aimed at compelling FRELIMO to sever its military ties with the ANC. It took only four years for the apartheid regime to bring Mozambique to its knees. On March 16, 1984, the Mozambican government signed the Nkomati Accord. The non-aggression pact required Pretoria to cease providing military assistance to RENAMO, but, in return, Mozambique had to close all ANC bases within its borders. A month later in Cape Town, representatives from South Africa, Mozambique and Portugal signed a new accord on Cahora Bassa, based on the recognition of all parties "that the continued generation and supply of electricity from the Cahora Bassa Project can significantly contribute to the peace and prosperity of the region as a whole, as well as the economic development and welfare of their respective peoples and countries."¹⁵⁶

The new accord offered two immediate economic benefits to Mozambique. First, ESKOM agreed to double the price that it paid per kilowatt hour, which still remained well below the world rate and to allow Mozambique to pay in local currency for electricity that came from Cahora Bassa to southern Mozambique via the South African power grid, thereby saving approximately \$10 million dollars a year in hard currency. More significantly, Pretoria pledged to prevent RENAMO from attacking either the power lines or the dam.¹⁵⁷ In a bizarre reaffirmation of its tentacles of empire the apartheid regime to offered to provide Mozambique with arms and to station helicopters at Cahora Bassa to help thwart future RENAMO attacks.¹⁵⁸

Despite meetings, speeches and promises, however, the South African military continued to aid RENAMO and made no effort to curtail its attacks. The insurgent movement had begun to take on a political life of its own and escalated its attacks to pressure the Mozambican government to negotiate directly with it. By 1988, 891 pylons had been destroyed; that number doubled again over the next three years.¹⁵⁹ The cost of repairing the power lines was estimated at \$500 million. A significant portion of Mozambique's debt to the Portuguese-run HCB was the cost of replacing the more than 2,000 pylons destroyed by RENAMO forces. As pointed out by Castigo Langa, Mozambique's Minister of Mineral Resources and Energy, "if Cahora Bassa had

¹⁵⁶ *International Affairs Record*, no. 37, December 1984,4, http://www.mozambiquehistory.net/cahora_bassa.html

¹⁵⁷ *Ibid.*, 7.

¹⁵⁸ "Pretória fornece a Moçambique munições e géneros alimentícios," *Diário de Notícias*. Date, 1984, http://www.mozambiquehistory.net/cahora_bassa.html (last visited on July 20, 2013).

¹⁵⁹ M. Gebhardt, "Switching to Cahora Bassa," *Mail and Guardian*, 19 December 1997.

operated normally, and the [transmission] lines had not been sabotaged, the undertaking [paying off the debt to HCB] would have been fully amortized by now.”¹⁶⁰ RENAMO’s military campaigns in Tete and Zambezia provinces had also effectively blocked plans to develop the Zambezi Valley and electrify the northern part of the country. Thus, RENAMO sabotage of the transmission lines during the civil war continued to stymie the government’s plans to garner economic benefits from Cahora Bassa.

Marauding RENAMO bands terrorized many peasant communities both around the dam site and downriver. Listen to the words of Faminsani Chenje, who lived in the village of Mushenge in southern Tete province:

The first time they came was in 1986. They were looking for food. It was a small group of about fifteen men. They took cattle, chickens and goats. A lot of villagers started fleeing to Tete [town] then because the war had come to Mushenge. But most of us stayed in the village. It was our home. Then, in June 1986, the Matsange [RENAMO] came again early in the morning. It was still dark. This time they came right into the village. They called for everyone to come out of their houses. Then they killed ten people and mutilated ten others, including myself. Two soldiers cut off my ears with knives. They said we were working for FRELIMO.¹⁶¹

Overall, South Africa’s destabilization campaign had devastating consequences for the riverine communities. Many villages were obliterated, fields destroyed and health clinics burned. It is hardly surprising that thousands of peasants who survived these attacks experienced food shortages and malnutrition. Throughout the region, the social fabric of rural society was destroyed.¹⁶² At the same time, the apartheid regime and its RENAMO allies managed to paralyze electricity production, ensuring that Mozambique derived no economic benefits from the dam. From 1982 to 1997, Cahora Bassa’s five massive hydroelectric generators stood idle. The dam remained a white elephant benefitting neither Mozambique’s struggling national economy nor its local ones.¹⁶³

¹⁶⁰ (quoted in Panafrican News Agency, “Mozambique Seeks to Wrestle Power Dam from Portugal,” <http://allafrica.com/stories/printable/200101080449.html> (2001).

¹⁶¹ Africa Watch, “Conspicuous Destruction,” (New York: Human Rights Watch, 1992), 47. *pis this a book?*

¹⁶² Africa Watch, “Conspicuous Destruction.”

¹⁶³ In addition to paralyzing Cahora Bassa and destroying many other strategic economic targets, RENAMO initiated a reign of terror throughout the riverine zones, particularly in areas considered loyal to the government. Among the most vulnerable were the peasants who had been displaced by the dam and herded into strategic hamlets during the colonial period. With independence, the barbed wire surrounding their villages was dismantled and the guards were

Struggles over Power, Water and Sovereignty: From Cahora Bassa to Mphanda Nkuwa

The renewed production of energy in 1997 underscored South Africa and Portugal's continued encroachment on Mozambique's sovereignty. Although the independent nation began receiving income from the dam for the first time in fourteen years, little else had changed. More than 80% of the electricity continued to be transmitted to South Africa, and the new ANC government insisted that the depressed price structure negotiated between the apartheid regime and Portugal remain in place, thereby effectively preventing Mozambique from gaining control of the dam anytime in the immediate future. The dam remained a foreign enclave over which Mozambique exercised little authority.

Mozambique's concerns over outright control of the dam itself, however, were initially overshadowed by South Africa's continued near monopoly on the purchase of Cahora Bassa's energy. ESKOM's hegemonic position set the stage for power struggles over price. In 2002, in the midst of Maputo's demands for greater control over the dam, HCB representatives, supported by the Mozambican government, clamored for a sharp rise in the woefully low price for electricity that ESKOM paid. The post-apartheid state rebuffed all of Lisbon's efforts to raise the rates for electricity to market value. The conflict reached a peak in October 2002, when HCB unilaterally cut off the flow of electricity to ESKOM and South Africa, asserting that the US\$0.01 per kilowatt-hour (kWh) was a "ruinous price" and a blatant attempt by ESKOM to exploit its power as almost sole buyer of Cahora Bassa electricity.¹⁶⁴ In a complete role reversal, Carlos Vega Angelos, the HCB chair, condemned the ANC for pursuing the unjust policies of the past:

We have a power purchase agreement that was established between Portugal and South Africa in 1969. Many things have changed here in Africa. Portugal is no longer the colonial country. Mozambique is an independent country, and even the regime in South Africa has changed, so we need a new power purchase agreement that is more appropriate

removed, but that effectively left them defenseless. Since their original homes were under water, however, most had little alternative but to remain where they were.— where they were easy prey. According to Vernácio Leone, "When RENAMO would come into a village, they would call all the people together. Then they would go into the house and steal all that was inside. They ordered the people back into their homes and set them on fire. People elsewhere heard these stories, so when RENAMO was coming, they would flee to Estima (an administrative center near the dam site [Interview with Vernácio Leone, Estima, 19 May 1998].

¹⁶⁴ AIM, "Veiga Anjos attacks ESKOM," 7 October 2002.

to the present situation in this region.¹⁶⁵

The HCB demanded, at a minimum, a doubling of the price and immediate negotiations for establishment of what they perceived would be an even higher rate in the future—one that reflected the true market value. The Mozambican government favored the increase, but opposed HCB's unilateral decision to cease exporting electricity to South Africa for several months, which cost Mozambique badly needed foreign currency. Prime Minister Pascoal Mocumbi called this decision “not the most suitable method” for resolving conflicts.¹⁶⁶ His measured response underscored Mozambique's continued marginality in this power struggle over the pricing of Cahora Bassa's electricity.

Faced with rising domestic demands for electricity and the likelihood that its energy surplus would run out, ESKOM ultimately accepted an interim agreement in 2003 that increased the price to R 3.6 cents per kilowatt-hour. The following year the price doubled again as part of a new 18-year agreement between the HCB and ESKOM, although it was still well below the regional market price.¹⁶⁷ Because Mozambique lacked sovereignty over the dam, it had no legal standing in these tortured negotiations.

This transnational conflict for control over hydroelectricity was reflected in Mozambique's decision to resurrect colonial-era plans to construct a dam at Mphanda Nkuwa,¹⁶⁸ 70 km downstream from the Cahora Bassa dam site. Several factors converged to give this hydroelectric project new life.

In 1987, in the face of an escalating war, economic collapse, and growing pressure from the West, FRELIMO abandoned its socialist agenda.¹⁶⁹ As with many other countries in Africa in the 1980s, it turned for assistance to the World Bank, which required it to privatize critical sectors of the economy and to implement a structural adjustment program. Mozambique's formula for achieving high levels of foreign investment and rapid economic development centered on a handful of mega-projects, primarily involving mineral resource extraction, whose

¹⁶⁵ Quoted in Sylvia Smith, “The Cahora Bassa dam,” <http://www.rnw.nl/development/html/030218cahora.html> (2003).

¹⁶⁶ AIM, “Mocumbi reacts to Cahora Bassa decision,” 18 October 2002.

¹⁶⁷ Phasiwe Khulu, “ESKOM to Pay Much More for Power from Cahora Bassa,” *Business Day* (Johannesburg) 10 (February 2004). In 2004, Zimbabwe, for example, paid R15.4 cents for Mozambican electricity [source].

¹⁶⁸ While appearing in various arrangements in the media and general literature, this is the spelling suggested by Castigo Langa, the Minister of Mineral Resources and Energy. Opening Address of Castigo Langa, Investors Conference for the Mphanda Nkuwa Hydroelectric Project, Maputo, 30 May 2002.

¹⁶⁹ United Nations officials calculated that, by the early 1990s, Mozambique's GDP had been reduced by half as a result of the conflict [Joseph Hanlon, “Mozambique: ‘The war ended 17 years ago, but we are still poor,’” *Conflict*,

success would depend on the ability to exploit cheap energy from the Zambezi River.

Since most of the electricity produced by Cahora Bassa was already under contract to South Africa, the FRELIMO-led government concluded that a new dam would provide the cheap electricity to Mozambique that Cahora Bassa did not. Additionally, it could generate badly needed hard currency by exporting electricity to its energy-starved neighbors.

Second, the dismantling of the apartheid regime in 1994__ and the recognition by the ANC government that South Africa faced a serious energy shortfall propelled Pretoria to seek new sources of energy.¹⁷⁰ The extension of power lines into low-income areas, along with increased demands for energy from the service and financial sectors and mining's continued needs, sorely taxed its energy infrastructure and required it to look beyond its borders for cheap and secure energy.¹⁷¹ A new dam on the Zambezi to supplement Cahora Bassa's output was an obvious choice.

Additionally, building Mphanda Nkuwa offered Mozambique important political leverage in its struggle to gain control over Cahora Bassa. Throughout the negotiations over Cahora Bassa, FRELIMO tried to use to its advantage the threat of another dam at Mphanda Nkuwa, since constructing a second dam downriver, whose energy would be exported to South Africa, would dramatically reduce Cahora Bassa's income potential and make the Portuguese-owned dam redundant, and, thus, of little value to Lisbon.¹⁷²

From Maputo's perspective, Portugal's continued ownership of the dam, the sale of electricity to South Africa at a fraction of the market value, and the need to re-import some of that exported electricity were colonial artifacts that subverted Mozambique's political and economic sovereignty and national security.¹⁷³ Cahora Bassa had become a living symbol of a violent and oppressive past and a constant reminder that the nation was still not free from the yoke of colonialism. Songo, the small city that served the dam, remained a European enclave in the heart of Mozambique, with expatriate managers and workers retaining many of their past privileges and almost all of the 850 Mozambican workers stuck in low-wage positions.¹⁷⁴ One

Security and Development (10 March 2010), 80].

¹⁷⁰ David A. McDonald, "Electric Capitalism," in *Electric Capitalism*, David A. McDonald, ed. (Cape Town: HSRC Press, 2009), 14.

¹⁷¹ *Ibid.*

¹⁷² *AIM*, 24 July 2004.

¹⁷³ *The East African Standard* (Nairobi), 7 August 2002.

¹⁷⁴ *Diário de Moçambique*, 3 August 2003; *Notícias*, 30 April 1996; *Notícias*, 20 September 1996; *Savana*, 19 May 1995

African laborer summed up their shared sense of anger and alienation this way: “As time goes on we feel more marginalized. . . . We feel like foreigners in our own country.”¹⁷⁵ Strike threats and periodic work stoppages reported in great detail in the media were powerful reminders of how little had changed.¹⁷⁶

The lack of electricity in the countryside powerfully underscored this extreme neo-colonial reality. Even after transmission lines were rehabilitated and the dam began to produce electricity at full power in 1998, almost all of the energy went to South Africa, and the HCB ignored Mozambique’s energy needs¹⁷⁷—holding them hostage to HCB’s search for new markets in the larger energy-starved region, where it could command higher prices.¹⁷⁸ FRELIMO officials were outraged, and the Finance Minister declared the *status quo* unacceptable: “Cahora Bassa has a fundamental responsibility for the development of the national economy.”¹⁷⁹ FRELIMO then began a vigorous campaign to reclaim Cahora Bassa, proposing several plans that would reduce or erase the debt and transfer its ownership from Lisbon to Maputo.¹⁸⁰ Lisbon rejected them all, provoking a strong backlash in Mozambique with calls to nationalize the dam.¹⁸¹

For almost a decade negotiations with Portugal over transferring ownership of the dam faced stiff opposition in Lisbon. The Mozambican government was backed by South Africa, which preferred to negotiate the cost of energy directly with Maputo, over whom it had more leverage. Due to frequent changes of government in Lisbon, the Mphanda Nkuwa threat did not achieve its objective. After several failed rounds of talks in 2005, Armando Guebuza, the recently elected President of Mozambique, threatened to derail Portuguese efforts to expand its

¹⁷⁵ *Savana*, 19 May 1995.

¹⁷⁶ *Notícias*, 19 September 1995; *Domingo*, 24 October 1996; *Notícias*, 20 September 1996; *Tempo* 379 (8 January 1978), 56-65; *Diário de Moçambique*, 3 August 2003.

¹⁷⁷ That year South Africa received 850 megawatts (60 percent) of the dam’s generated electricity. Of the remainder, the Portuguese firm designated 400 megawatts for Zimbabwe and only 200 megawatts (about 14 percent) for Mozambique’s electricity utility. *Engineering News* [South Africa], 15 November 2002 (<http://www.engineeringnews.co.za/article/cahora-bassa-power-flows-talks-continue-2002-11-15>). To make matters worse, HCB refused a request from FRELIMO to redirect unused energy to a proposed aluminum smelter in Beira, Mozambique’s second largest city. *AIM*, 6 April 1998; *Engineering News* [South Africa], 18 June 1999.

¹⁷⁸ *AIM*, 6 April 1998.

¹⁷⁹ *Mozambiquefile* 293, December 2000.

¹⁸⁰ *Mozambiquefile* 316, November 2002; *Engineering News* [South Africa], **DATE??**; *SABC*, 18 October 2002 (http://www.sabcnews.com/africa/southern_africa/0.1009.45254.00.html).

¹⁸¹ *Mozambiquefile* 293, December 2000; *Mozambiquefile* 316, November 2002; *Xinhua News Agency*, 5 September 2002; *Indian Ocean Newsletter*, 21 October 2002 (http://www.africaintelligence.com/ps/AN/Arch/ION/ION_1010.asp); *Savana*, 2 April 2004; *AIM*, 24 July 2004.

cultural and economic ties to its former colony,¹⁸² which, in 1995, had entered the British Commonwealth. A year later, Lisbon seeking to solidify economic and cultural ties with Mozambique, agreed to sell it two thirds of its holdings in Cahora Bassa for \$700 million¹⁸³.

The transfer took place in 2007. Five years later about 16% of Mozambicans have access to energy, although many cannot afford to pay the price for it. The energy situation is even worse in the countryside. According to one international report “access to electricity is among the lower in the world, especially in rural areas where only 1% of the population is supplied.”¹⁸⁴ While Cahora Bassa currently generated about 300 million dollars in income for the state treasury,¹⁸⁵ anti-dam activists are adamant that only an insignificant amount of the revenue is allocated by government officials for economic or social projects in the Zambezi Valley.¹⁸⁶

And what has happened with Mphanda Nkuwa? With the aid of the World Bank¹⁸⁷ and a combination of Brazilian, Chinese and South African investors, its construction appears to be advancing. The Mozambican government has rejected the pleas from environmentalists and some riverine communities not to build Mphanda Nkuwa, fearing that its erection would preclude the possibility of reestablishing the historic flow regime, which could restore agriculture and fishing to the Lower Zambezi Valley.¹⁸⁸ But Mphanda Nkuwa’s construction still depends on ESKOM’s committing to buy much of the energy from the new dam, further enmeshing Mozambique in South Africa’s energy empire.

Conclusion

¹⁸² *Savana* (Maputo) November 5, 2005.

¹⁸³ At the signing of the preliminary agreement, President Guebuza put a triumphalist spin on the accord. “It removes from our soils the final redoubt of foreign domination...” and insured that Cahora Bassa would become “a fundamental instrument in pursuing our objectives seeking the eradication of poverty through promoting development and making full use of the Zambezi Valley” [“Mozambique Takes Majority Ownership of Cahora Bassa,” *Zambezi* 7, no.2 (2006)]. Less publicized was what control of Cahora Bassa would mean for FRELIMO elites. In the shuffling of debt that led to the eventual deal with Lisbon, an investment group, INSITEC, reportedly linked to President Armando Guebuza, acquired the Mozambican stake in the nation’s second largest bank BCI-Fomento [Joseph Hanlon, “Mozambique’s Elite,” 8].

¹⁸⁴ https://energypedia.info/wiki/Mozambique_Energy_Situation

¹⁸⁵ www.Macuahub, “Cahora Bassa hydro-electric dam posts positive results over last five years.”, February 20, 2013 (last viewed on July 21, 2013).

¹⁸⁶ Interview with Daniel Ribeiro, Portland, Oregon, 16, July 2013.

¹⁸⁷ www.articles.washingtonpost.com > Collections > World Bank, “World Bank turn to hydropower to square development with climate change” (last viewed July 20, 2013).

¹⁸⁸ Allen Isaacman and David Morton, “Harnessing the Zambezi: How Mozambique’s Planned Mphanda Nkuwa Dam Perpetuates the Colonial State,” *Int’l Journal of African Historical Studies* 45, no. 2 (2012): 147-90.

Despite Portugal's historical ideology of strong economic nationalism, in reality, it was all too willing to outsource empire. South Africa exploited this opening to extend its tentacles of empire further and further into the Mozambican hinterland in ways that had devastating consequences. By the time Mozambique gained its independence in 1975, South African interests were firmly entrenched at Cahora Bassa and remain so until today.

That the citizens of Mozambique have not, as yet, derived any significant benefits from the massive hydroelectric project on the Zambezi River is one of the harsh realities of Mozambique's post-colonial history. Rather than promoting national economic development or sustainable livelihoods for the Mozambican people, the dam robbed Mozambique of precious energy, since the harnessing the river's flow regime to meet the needs of the South African state deprived rural communities in the Zambezi Valley of the life-sustaining nutrients that had supported agricultural production and local ecosystems for centuries. While the natural energy of the river was transformed into an export commodity that provided the apartheid economy and its successor with cheap hydroelectric power, the vast majority of Mozambique's population has no access to this critical resource, including those living in villages in the Zambezi Valley adjacent to the power lines that transport energy to South Africa.