Abstract

Cahora Bassa, completed on the Mozambican stretch of the Zambezi River in 1974, the year before the end of Portuguese rule, was catastrophic for the approximately half-million people who depended on the river and its delta for their livelihood and for the ten of thousands who were forcibly relocated when the dam’s lake was created. Even today, the flow management scheme required to maximize export of electricity to South Africa continues to wipe out dry-season crops and drastically reduce fishing, making life along the Zambezi barely supportable.

Despite the traumatic history of Cahora Bassa, the Frelimo government is committed to a colonial-era plan to build a second dam approximately 70 kilometers downriver from the first. In many respects, Mphanda Nkuwa, as the dam project is called, looks like a replay of the colonial past. Mozambique justifies the dam in language largely unchanged from the colonial era. The overarching economic imperative driving the dam is the same—cheap energy for South Africa. According to environmentalists, Mphanda Nkuwa is being pushed through without proper impact studies. And as with Cahora Bassa, decisions on Mphanda Nkuwa have generally occurred behind closed doors. Impacted communities have had little meaningful say in what is to befall them.

Yet, even with these unmistakable similarities with the Portuguese past, the new dam is not simply a re-enactment of colonial-era sins. Whatever one thinks of its merits, it is not, as Cahora Bassa essentially was, a colonial security project disguised as development. Moreover, for all the single-mindedness with which Frelimo has imposed the project on local communities, the power dynamic now is very different than in the colonial era, when an alien regime ruled by violent force. Many fewer people will have to be relocated by the second dam. Additionally, to the extent public debate occurs about construction of the dam, it is pushed by a voice that was barely audible 40 years ago—an environmental movement with global links and a toehold in Mozambique.

Rather than think of Mphanda Nkuwa as an ugly history repeating itself, it is more productive to examine how Cahora Bassa and Mphanda Nkuwa are part of the same ongoing process: the harnessing of the Zambezi River largely to the detriment of the farmers and fishermen who depend on it. In this study we argue that this harmful process works in two directions. Cahora Bassa and the assumptions embedded in it continue to shape present realities. And the planning of Mphanda Nkuwa likely makes permanent the impact of Cahora Bassa, widely regarded as one of the most ecologically destructive dams in Africa. The official adulation surrounding Mphanda Nkuwa celebrates Cahora Bassa, and drowns out the memories and the lived experiences of those whom Cahora Bassa impacted. Moreover, because investors in this new project will want to maximize energy output, Mphanda Nkuwa would likely foreclose the possibility of reforming the flow pattern of Cahora Bassa and thereby of restoring riverside farming to some semblance of what it was before the construction of the first dam. Mphanda Nkuwa, that is, will freeze the colonial past in place.

This paper is written in two parts. The first discusses Mphanda Nkuwa at the national and transnational levels largely from the macro perspective. It covers the legacies of Cahora Bassa, the planning of Mphanda Nkuwa, the developmentalist priorities of Frelimo, and the role of environmentalists in the process. The second part examines the community of Chirodzi-Sanangwe, whose approximately 2,000 residents will have to make way for Mphanda Nkuwa. In Chirodzi-Sanangwe, the responses to the prospective dam are varied—influenced to a large degree by one’s relative economic standing. And yet all responses are shaped in some way by the experience of Cahora Bassa. In this Valley community, the future as well as the past can be said to have sunk hooks into the present.

Keywords: Mphanda Nkuwa Dam, Zambezi River, Mozambique.

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1 This paper was first published in the International Journal of African Historical Studies 45,2(2012),157-1990.
INTRODUCTION

Hydroelectric dams in Africa may be among the most enduring of colonial legacies. They persist in ways that laws or traditions or patterns of life do not. They stand fixed in the landscape, changing the world around them while they themselves prove stubbornly resistant to significant change. Cahora Bassa, completed on the Mozambican stretch of the Zambezi River in 1974, the year before the end of Portuguese rule, was catastrophic for the approximately half-million people who depended on the river and its delta for their livelihood and for the ten of thousands who were forcibly relocated when the dam’s lake was created. Even today, the flow management scheme required to maximize export of electricity to South Africa continues to wipe out dry-season crops and drastically reduce fishing, making life along the Zambezi barely supportable.

Despite the traumatic history of Cahora Bassa, the Frelimo government is committed to a colonial-era plan to build a second dam approximately 70 kilometers downriver from the first. In many respects, Mphanda Nkuwa, as the dam project is called, looks like a replay of the colonial past. Mozambique justifies the dam in language largely unchanged from the colonial era. The overarching economic imperative driving the dam is the same—cheap energy for South Africa. According to environmentalists, Mphanda Nkuwa is being pushed through without proper impact studies. And as with Cahora Bassa, decisions on Mphanda Nkuwa have generally occurred behind closed doors. Impacted communities have had little meaningful say in what is to befall them.

Yet, even with these unmistakable similarities with the Portuguese past, the new dam is not simply a re-enactment of colonial-era sins. Whatever one thinks of its merits, it is not, as Cahora Bassa essentially was, a colonial security project disguised as development.

Moreover, for all the single-mindedness with which Frelimo has imposed the project on local communities, the power dynamic now is very different than in the

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2 This figure comes from the government’s estimate of the numbers affected by the 2001 flood caused by the unusually heavy rains that devastated the region. AIM, 20 April 2001.
3 We recognize that Frelimo was never homogenous nor did the leadership speak with one voice. Over its history the party was embroiled in a number of conflicts which have been well documented. Today in Mozambique, several senior members of Frelimo, most notably Jorge Rebelo, have publicly criticized the lack of debate and checks and balances within the party and the ways senior officials are controlling key sectors of the economy for their own personal gain. (“Rebelo ataca lambebotismo na Frelimo,” Savana, 18 June 2010). On the issues surrounding Cahora Bassa and the proposed new dam at Mphanda Nkuwa, however, we have not uncovered any evidence of internal divisions within Frelimo. Party and state officials with whom we spoke, and who have insisted on anonymity, maintain that there is unity within the government on Cahora Bassa and on the projected new dam at Mphanda Nkuwa. Daniel Ribeiro, a leading Mozambican environmentalist who has raised serious questions about the proposed dam, lamented that no one in the government questioned the viability of the project. Interview with Daniel Ribeiro, 10 March 2008.
4 Before independence, the Portuguese spelled the name of the dam as “Cabora Bassa.” Mphanda Nkuwa has been spelled in multiple ways. We are using the spelling most widely accepted in recent years.
colonial era, when an alien regime ruled by violent force. Many fewer people will have to be relocated by the second dam. Additionally, to the extent public debate occurs about construction of the dam, it is pushed by a voice that was barely audible 40 years ago—an environmental movement with global links and a toehold in Mozambique.

Rather than think of Mphanda Nkuwa as an ugly history repeating itself, it is more productive to examine how Cahora Bassa and Mphanda Nkuwa are part of the same ongoing process: the harnessing of the Zambezi River largely to the detriment of the farmers and fishermen who depend on it. In this study we argue that this harmful process works in two directions. Cahora Bassa and the assumptions embedded in it continue to shape present realities. And the planning of Mphanda Nkuwa likely makes permanent the impact of Cahora Bassa, widely regarded as one of the most ecologically destructive dams in Africa. The official adulation surrounding Mphanda Nkuwa celebrates Cahora Bassa, and drowns out the memories and the lived experiences of those whom Cahora Bassa impacted. Moreover, because investors in this new project will want to maximize energy output, Mphanda Nkuwa would likely foreclose the possibility of reforming the flow pattern of Cahora Bassa and thereby of restoring riverside farming to some semblance of what it was before the construction of the first dam. Mphanda Nkuwa, that is, will freeze the colonial past in place.

Although funding for Mphanda Nkuwa has not yet been secured, the new dam is a critical part of Mozambique’s state-led development strategy. Underpinning this strategy is an alliance with foreign capital to invest in highly selective extractive enclaves. Since 1987, foreign investors, aligned with Mozambican business interests, have jumped from one part of Mozambique to another, bypassing huge swathes of the countryside deemed unproductive. South Africa’s state-run international development bank helped finance a giant aluminum smelter near Maputo, a Brazilian firm is revitalizing the vast Moatize coal mines in Tete province, Chinese interests control timber exporting in the northern part of the country, and China’s state-run import/export bank was at one time committed to financing the proposed dam at Mphanda Nkuwa. Anthropologist James Ferguson, in writing about Africa in general, argues that this kind of natural resource extraction—spatially segregated from most of the country and “socially ‘thin’”—is the only kind of investment in Africa that most foreign investors are willing to make.

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6 See p. 20-21.
Mphanda Nkuwa fits into a broader continent-wide pattern in a second respect. African leaders of all political persuasions have embraced large dams with the unbridled enthusiasm of their colonial predecessors. During the past half-century or so, African governments constructed more than 1,000 dams, including 20 mega-projects such as the Akosombo Dam in Ghana, the Lagdo Dam in Cameroon, the Kainji and Bakolori Dams in Nigeria, the Kossou Dam in Ivory Coast, and the Masinga Dam in Kenya. As with dam projects in other parts of the continent, the proponents of Mphanda Nkuwa claim it will foster economic growth and alleviate poverty, particularly in the countryside. In reality, the cheap energy Mphanda Nkuwa produces is destined primarily for export, rather than for domestic development, and a share of the profit generated by the dam will reportedly go directly to an investment group connected to Mozambique’s president.

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CAHORA BASSA: AN OVERVIEW

Allen Isaacman has written extensively about the building of the Cahora Bassa and the devastating social, economic and ecological consequences flowing from the dam. For this article, which explores the interconnectedness of Cahora Bassa and Mphanda Nkuwa, five points are particularly germane.

Violence and repression characterized every stage of Cahora Bassa’s history. The 1969 agreement to construct the hydroelectric project cemented the security alliance between the Portuguese colonial state

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and South Africa’s apartheid regime.\textsuperscript{14} Both governments were committed to using whatever force was necessary to blunt the advance of Mozambique liberation movement (Frelimo) and its ally, the African National Congress. State and dam officials also relied on coercive methods to recruit many of the African laborers and to silence, repress, and discipline workers and suspected militants whom they thought might disrupt construction in any way.\textsuperscript{15}

Not only African workers experienced this violence. Starting in 1971, approximately 30,000 peasants were expelled from their historic homelands, which were being flooded to create the massive lake behind the dam, and forcibly resettled into strategic hamlets (\textit{aldeamentos}). Forced villagization also served another objective: isolating Frelimo from its rural base of support. According to one local official, \textit{aldeamentos} would “function as a means of combating the growth of terrorism by blocking the local population from having any contact with terrorists who require their support.”\textsuperscript{16}

Pressured by an expanded war and construction deadlines, the authorities had stopped paying lip service to the notion of voluntary resettlement. They simply ordered local chiefs and their followers from their homelands, resorting to coercive or openly violent tactics whenever they encountered opposition. To this day, the traumatic episodes of removal remain etched in the memories of the displaced. Basílio Chiridizana, for one, recalled, with visible distress, that day in March 1973 when he learned of his relocation. “The Portuguese \textit{chefe de posto} gathered all the people and told us we must leave to save our lives from the rising water that would soon flood our lands. We were all very angry and did not want to leave Chicoa Velha but we had no choice.”\textsuperscript{17} In other cases, the threat of force was explicit. Gervásio Chongololo, who was 25 at that time, described the moment colonial soldiers swooped down on his village. “They arrived very suddenly. They were heavily armed and impatient. They threatened to beat us, which they did. We had no choice.”\textsuperscript{18}

More unsettling still, \textit{aldeamento} residents were trapped in a highly militarized and controlled world where they had lost control over their lives and become disconnected from the royal ancestor spirits (\textit{mhondoros}) whose shrines were submerged under the man-made lake. Peasants still reeling from the trauma of forced resettlement became virtual captives in their new homes under the constant \textit{supervision} of African militias serving the Portuguese, who stood guard around the clock at checkpoints that controlled residents’ access to

\textsuperscript{15} Isaacman and Sneddon, “Toward a Social and Environmental History,” 610-17.
\textsuperscript{16} Arquivo Histórico de Moçambique, Província de Tete, Administração do Concelho de Moatize, Arquivo Confidencial e Secreto dos Processos, Cx.109: João Pinto Coelho, Administrador de Concelho de Moatize, 28 July 1970.
\textsuperscript{17} Interview with Basílio Chiridizana and Ragui Foa Magui, Chicoa Nova, 3 August 2001.
\textsuperscript{18} Interview with Gervásio Chongololo, Estima, 11 July 2001.
the world outside. The devastating social and cultural consequences of their virtual imprisonment in *aldeamentos* is the second significant consequence of Cahora Bassa.¹⁹

Third, despite the fact that Frelimo prevailed and Mozambique became independent in 1975, the new government did not control the dam. Under the 1974 Lusaka peace accord, which set the stage for Mozambican independence, Portugal assumed responsibility for the US$500 million debt associated with its construction. The Portuguese state retained 82 percent ownership of the dam and appointed the directors of Hidroeléctrica de Cahora Bassa (HCB), which operated it. Mozambique became a minority 18 percent shareholder, whose profits from the dam would be used to buy out Lisbon’s controlling interests. For a variety of reasons this transfer did not occur until 2007—more than thirty years later. Cahora Bassa remained a colonial project—HCB continued to determine the outflows of water and negotiate the sale of electricity, from which the revenue largely went to Lisbon.

Throughout most of the post-independence period, HCB exported the vast majority of the energy produced to South Africa at a fraction of the world price—as required by the 1969 accord. That neither the people living adjacent to the Zambezi River nor the citizens of Mozambique have derived any real benefits from the massive hydroelectric project is one of the harsh realities of the post-colonial history of Cahora Bassa.

Fourth, by placing the lifeblood of the Zambezi’s floodplains, delta, and estuary in the hands of HCB, Portuguese colonial authorities made the ecosystem of the lower Zambezi River Valley beholden to South African energy demands rather than to the natural annual rainfall cycles. 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 that had defined riverside farming systems for centuries disappeared.²⁰

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 organic and non-organic

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¹⁹ Despite the unpopularity of the colonial *aldeamentos* and Frelimo’s reference to them as “concentration camps,” there were a number of continuities between the *aldeamentos* and post-independence communal villages in the province of Tete. Almost 60 per cent of the peasants living in communal villages had previously resided in *aldeamentos*. Moreover, many of the communal villages were established on the same locations as the former *aldeamentos*. The fact that state officials often pressured or coerced peasants to join communal villages raised the specter of the colonial past. See João Paulo Borges Coelho, “State Resettlement Policies in Post-Colonial Rural Mozambique: The Impact of the Communal Village Program on Tete Province, 1977-1982,” *Journal of Southern African Studies* 24, 1 (1998), 61-91; João Paulo Borges Coelho, “Protected Villages and Communal Villages in the Mozambican Province of Tete (1968-1982): A History of State Resettlement Policies, Development, and War” (Ph.D. thesis, University of Bradford, 1993).

material that had previously been carried downriver and deposited in the floodplains during rainy season flooding. These nutrients had sustained downstream aquatic ecosystems as well as 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 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:

In 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.21

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 the Zambezi River and a number of 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.”22 Many others similarly described what scientists call “silt hunger.”23

Fifth, and the most far-reaching legacy of Cahora Bassa, is that it 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 area that was regularly inundated. Deprived of water and sediment, the once extensive stretches of productive floodplains shrank or even disappeared altogether. And those who 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?”24 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

24 Interview with Maria Faira, Savieli Village, Nsanje, 18 April 2000.
have them one year but in another year you lose them. . . . People are really suffering.”

Maria Faira put it bluntly: “Cahora Bassa has given us hunger.”

Before the dam, the Zambezi River and its adjoining lakes, rivulets, and estuaries had contained a rich and varied bounty of fish; fishing had been a vital source of protein, a vibrant economic activity, and a way of life for many men in the region’s riverside communities. Every year, flooding had triggered the annual reproduction cycle of many fish species, and the spillover had created warm shallow ponds along the floodplains that were rich in nutrients and ideal for breeding. Impounding the river both impaired fish reproduction and led to a marked decline in the growth and survival of younger fish. Valley residents agreed that, “when there was little water in the river, the fish were fewer and much smaller.”

Upriver at Lake Cahora Bassa a flourishing local fishing industry did develop. By the mid-1980s an estimated 1,500 independent fishermen trolled the lake catching both kapenta (sardines) and larger fish. The relative prosperity proved short-lived for local fishermen. They were rapidly displaced in the 1990s by Zimbabwean and South African fishing companies. Using large motorized boats, powerful nightlights, and enormous circular nets they harvested thousands of tons of prized kapenta which were in great demand in neighboring countries. In the face of this intensified foreign competition, the catches of local fishermen declined dramatically, and while some continued to eke out a living on the lake, others abandoned fishing or worked under harsh conditions on commercial boats for wages as low as US $1 per day.

That Cahora Bassa had devastating social, ecological, and economic consequences is beyond dispute. Memories of the violence experienced by workers and peasants, along with the pernicious ecological and social consequences of the dam, which are felt until today, fuel the strong opposition of both environmental activists and a small number of elders in Chiroodzi–Sanangwe to the construction of Mpanhda Nkuwa.

PLANNING MPHANDA NKUWA

The colonial-era plan for Cahora Bassa also envisioned construction of a dam at Mphanda Nkuwa, located downriver halfway to the city of Tete. It is named for the mountain that juts into the Zambezi River, creating a narrow choke point that colonial engineers considered an ideal site for a dam. Despite the favorable

25 Interview with Zhuwa Valera and Pereira Msitu.
26 Interview with Maria Faira.
27 Interview with Inácio Tlonse Guta et al., Tsetsha, 21 July 2000; Interview with Manuel Tale et al., Tsetcha, 21 July 2000.
28 Interview with Maria Faira.
geological and hydrological conditions, however, the project languished for more than a quarter of a century. Cahora Bassa’s completion was followed first by independence in 1975 and then by the devastating conflict with Renamo that paralyzed economic activity in the Zambezi Valley for more than a decade. The idea of building Mphanda Nkuwa was only resurrected in the late 1990s after dramatic changes in the political economy of the region. Three major economic, and several non-economic factors, converged to give it new life.

In 1987, in the face of an escalating war, economic collapse, and growing pressure from the West, Frelimo abandoned its socialist agenda. 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 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 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, Mozambique sought other options. Frelimo resurrected the idea of building a dam at Mphanda Nkuwa, which would not only provide the cheap electricity to Mozambique that Cahora Bassa did not, but could additionally generate badly needed hard currency by exporting electricity to its energy-starved neighbors. To accelerate the development of this and other mega projects, the Zambezi Valley was declared “a special fiscal and custom region with extensive exemption from import duties and taxes.”


32 By the early 1990s, United Nations officials calculated that 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, Security and Development, 10 March 2010, 80.

33 República de Moçambique, Ministério dos Recursos Minerai e Energia, Mphanda Nkuwa Hydropower Project, Mozambique: Development Prospect (Maputo, 2003), 3.
refurbish almost 1000 sabotaged pylons. By 1997, all the power lines were functioning, and Cahora Bassa began exporting energy. Security and order were obviously essential preconditions for the construction of a new hydroelectric project.

Thirdly, the dismantling of the apartheid regime two years later and the recognition by the ANC government that South Africa faced a serious energy shortfall propelled Pretoria to seek new sources of energy. 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. A new dam on the Zambezi to supplement Cahora Bassa’s output was an obvious choice.

Mozambique’s need to gain control over Cahora Bassa was another, though not strictly economic, factor giving impulse to a second dam. Building Mphanda Nkuwa offered it important political leverage in this struggle. 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.

Twenty-five years after independence it was no longer tolerable that Portugal owned and operated the dam. Cahora Bassa was 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 Portuguese enclave in the heart of Mozambique, with European managers and workers retaining many of their past privileges and almost all 850 Mozambican workers stuck in low-wage positions. One worker 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.” Strike threats and periodic work stoppages reported in great detail in the media were powerful reminders of how little had changed.

The lack of electricity in the countryside powerfully underscored this extreme neo-colonial reality. Even after transmission lines were rehabilitated and the dam began producing electricity again at full power in 1998,
HCB paid little attention to Mozambique’s energy needs. Instead, these development needs were held hostage to HCB’s search for new markets in the larger energy-starved region, where it could command higher prices than were the energy sold locally. Frelimo officials were outraged. The finance minister declared the status quo unacceptable: “Cahora Bassa has a fundamental responsibility for the development of the national economy.” Frelimo then began a vigorous campaign to reclaim Cahora Bassa, proposing several plans that would reduce or erase the debt and transfer its sovereignty from Lisbon to Maputo. Lisbon rejected them all.

The stalled negotiations provoked a strong nationalist reaction in Mozambique. Some suggested that Frelimo had made an error of historical proportions by not taking control of the dam at independence. Two weekly newspapers widely read in the capital, Domingo and Zambeze, argued that the state should simply nationalize it. As Zambeze’s editor, Salomão Moyana, stressed, “the continuation of the present situation makes Mozambique look like a country too weak to defend its own interests”—making expropriating the dam a “national imperative which all of Mozambican society should unconditionally support.”

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 firm reportedly linked to President Armando Guebuza acquired the Mozambican stake in the nation’s second largest bank.

Throughout the negotiations over Cahora Bassa, Frelimo tried to use to its advantage the threat of another dam at Mphanda Nkuwa. Decreasing the profitability of the Portuguese-owned dam would make it of little value to Lisbon. Once planning for Mphanda Nkuwa got underway, however, it took on a life of its own. By the time Cahora Bassa passed into Mozambican control in 2007, Frelimo had decided that, for the above-
described economic reasons, two dams on the Mozambican stretch of the Zambezi were better than one. Mphanda Nkuwa was no longer a means of pressuring Portugal by creating competition for Cahora Bassa—instead, it had become useful in itself.

Frelimo’s position was supported by a feasibility report commissioned by UTIP, a government regulatory body established in 1996 “to safeguard the country’s interests in the river’s hydropower potential and to manage its development.”52 The multi-volume study, *Mepanda Uncua Environmental Impact Assessment*, strongly endorsed the construction of a second dam, and attracted a great deal of international attention. For the purpose of this article, four of the findings highlighted in the Executive Summary and an accompanying development prospectus are particularly germane.53

The first was that Mphanda Nkuwa could be developed as a “run of river” scheme with only a limited environmental impact. Whereas Cahora Bassa created a vast lake behind the dam stretching more than 2675 square kilometers, the reservoir at Mphanda Nkuwa would be only four percent that size (96.5 square kilometers)—“more like a large, slow-moving tidal river than a lake.”54 From this the report concluded that “[t]he risks of significant adverse impacts to biodiversity from construction activities and inundation appear low.”55

Secondly, the study stressed that the dam would likely displace only a small number of people—making the economic costs inconsequential. Investigators estimated that approximately 1,400 peasants in 260 households and their small number of livestock would have to be relocated from what was an impoverished backwater area. They also downplayed the value of the land being destroyed—the shrublands to be flooded were of poor quality for grazing, the farmlands were hardly arable, and the woodlands to be inundated had no commercial value.56 UTIP expected these modest financial losses to be more than offset by new employment possibilities. “Almost 3000 temporary jobs [some lasting up to seven years] will be created by construction work, mostly for unskilled and semi-skilled workers, providing unprecedented opportunities for local people,” and up to 60 jobs will be created by a kapenta fishery. The proposed development of artisanal fisheries would enable poor peasants to become fishermen.57

export most of the energy to South Africa at below market prices. This relationship highlights the inherent trans-territorial nature of hydroelectric dams. We would like to thank Dr. Jaqueline Goldin for her observations on this point.52

53 *Mphanda Nkuwa Development Prospect*, 2.


55 Ibid.

56 Ibid.

57 Ibid., 3.
The report anticipated that the dam would bring peasants into the market economy and, like Cahora Bassa, would encourage progress and development. This claim was highlighted in a slick multicolored prospectus, based on the feasibility study, which was distributed to prospective investors. Even though there were, as yet, no resettlement plans in place, the head of UTIP, Sérgio Elísio, later confidently predicted that for the impoverished peasants who are relocated “conditions will be better than before....They will be near water, a school and a hospital.”

The willingness of local communities to voluntarily relocate was its third critical finding. In sharp contrast to the social upheaval and violent responses of many rural communities in the Global South, the authors foresaw a smooth transition here. They claimed that the affected people were positive about resettling in traditional villages, “close to the reservoir for water supplies and Mepanda Uncua for employment opportunities, provided adequate compensation was arranged.”

Finally, it stressed the critical role Mphanda Nkuwa would play in closing the energy gap in both Mozambique and the larger Southern African region, while generating very attractive profits for investors. With only five percent of the population on the electrical grid at the time and massive industrial projects in the pipeline, by 2010 the total demand in Mozambique could skyrocket to 1,700 megawatts. The new dam would also provide a substantial infusion of energy to the South African Energy Pool (SAPP), which would by then be facing a 5,000 megawatt shortfall. Given this estimated future demand, financial analysts calculated the rate of return on Mphanda Nkuwa at a handsome 17 percent. Thus, according to the feasibility report, Mphanda Nkuwa would both be a profitable venture and facilitate national development. In short, the report set an extremely favorable investment tone.

Although expressing confidence that the National Water Policy protected the rights of people to basic water needs, the Executive Summary did briefly acknowledge potentially adverse effects—including reduction in water quality caused by waste disposal, decay of inundated vegetation, and restricted river flow. It also underscored that the new dam would trap sediment inflows from the Luia River, thereby reducing the fertility of wetland soils downstream, and warned that fluctuations in discharges from the dam, particularly during the dry season, could affect the availability of fish, alter the river channels, and lead to unpredictable

58 Hidroeléctrica de Mphanda Nkuwa, Mphanda Nkuwa, 5.
60 UTIP, Mepanda Uncua Feasibility Study, Environmental Impact Assessment Executive Summary, 3.
61 Mphanda Nkuwa Development Prospect, 4.
63 Mphanda Nkuwa Development Prospect, 4-5.
64 Ibid., 6.
65 Environmental Impact Assessment Executive Summary, 5.
flooding of alluvial fields. To address these concerns, the consultants proposed only that further studies be undertaken “to inform negotiations between the developer and the affected parties aimed at agreeing [on] compensation for the loss of water rights.”

A month after the study’s completion, the government organized an Investors Conference for the Mphanda Nkuwa Hydroelectric Project. More than 200 government officials, consultants representatives of large energy companies, contracting companies, equipment manufacturers, and investment banks descended on Maputo in May 2002. The meeting’s intent was clear—to mark the official launching of the project and to invite investors to pre-qualify as participants in the dam’s construction, which was expected to begin in 2004 or 2005. The dam would generate roughly 1,300 megawatts—roughly two-thirds the output of Cahora Bassa.

South African, Brazilian, and Chinese investors all expressed considerable interest in the project. Beijing took the lead. In April 2006, as part of China’s ongoing efforts to expand its influence in Africa, the Export-Import Bank of China signed a Memorandum of Understanding with the Mozambican government to finance the Mphanda Nkuwa dam. The US$2.3 billion preliminary agreement covered the cost of the dam, the power station, and the transmission line from Tete to Maputo. A dam that had long been a possibility now seemed a probability.

The planning of Mphanda Nkuwa represented a new assertion of Mozambican sovereignty over the Zambezi River, and, not incidentally, potential financial gains for individuals within the government. An arm of Insitec, the same Guebuza-linked investment group that benefited from the transfer of Cahora Bassa, is currently one of the partners in the consortium that has since been granted the dam concession. In harnessing the river for Mozambique’s economic interests, Frelimo has chosen to narrowly define what those interests are and whose interests it considers. While it makes big decisions about the fate of the communities along the Zambezi, the state has demonstrated little interest in seeking meaningful input from those communities themselves. This top-down approach to development and governance—one in which Maputo effectively asserts a monopoly on wisdom and power—is one of the powerful legacies of the socialist moment, but it also characterizes mega-development projects around the globe, particularly those involving dams.

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66 Ibid., 4-5.
67 Ibid.
68 Mphanda Nkuwa Development Prospect, 4.
69 Interview with Madalena Dray, Environmental Manager of HMNK, Maputo, 11 March 2010.
72 According to John Saul, an ardent supporter of the liberation struggle and an astute observer of postcolonial Mozambique, a number of long-time Frelimo activists have acknowledged that “the undemocratic ‘statist’ nature of
THE ENVIRONMENTALIST RESPONSE

Any discussion of responses in Mozambique to Mphanda Nkuwa has to take into account the unequal way in which political power is distributed and information disseminated. The vast majority of citizens remain unaware of the proposed dam’s existence, most of those who are aware of the plan know very little about what it entails, and many of those who may be impacted by the dam recognize that whatever they think of Mphanda Nkuwa will have little impact on whether and how it is built. In the second part of this article we discuss the doubts and anxieties we encountered among people living in Chirodzi-Sanangwe, the community that will be displaced by the dam. In this section we discuss the outright opposition to the dam, which is confined primarily to a small, but vocal, group of environmental activists based in Maputo.

Livango, Mozambique’s first legally registered environmental advocacy group, became in the early 2000s the first organization to oppose the construction of Mphanda Nkuwa. Not long afterward, those focusing on the dam split off to form another environmental group called Justiça Ambiental (Environmental Justice), which has for seven years persistently critiqued the government’s claims about Mphanda Nkuwa’s potential environmental and social impacts and its purported benefits.  

Key assumptions divide Mozambique’s handful of environmentalists and the Ministry of Energy. The environmentalists argue that state officials are minimizing the dam’s potential impacts. They maintain that, despite being billed as “run-of-the-river,” Mphanda Nkuwa can still inflict further harm on downriver ecologies and communities—a likelihood acknowledged in the government’s own UTIP report in 2002 (see p.15 above). Rejecting the assumption that the damage caused by Cahora Bassa can never be undone, they point to the possibility of reforming its flow management plan to more closely resemble prior natural


74 Interview with Anabela de Lemos, executive director of Justiça Ambiental, Maputo, 18 June 2008.  

75 The ecological and social damage inflicted by Cahora Bassa rarely if ever received mention in government reports or in our discussion with energy officials. Interview with Nazário Meguigy and Sérgio Elísio.
flooding patterns. This would permit peasant farmers downriver to once again confidently farm along the alluvial flood plains, which are the most fertile lands in the region, without fear of Cahora Bassa’s unpredictable discharges.

The construction of Mphanda Nkuwa, however, would make it more difficult for Mozambique to reform the flow management plan, because the estimated three to ten percent reduction in the amount of water discharged from Cahora Bassa to achieve this goal would cut into the new dam’s potential profits. Finally, by the environmentalists’ calculations, several hundred thousand people could be impacted by Mphanda Nkuwa. From the perspective of Ministry officials, Mphanda Nkuwa is a win-win situation—residents of the dam site will get a better place to live and the nation will get more foreign currency and electricity for internal development. For environmentalists, the building of the dam would result in clear winners and clear losers.

But between the environmentalists and Mozambique’s Ministry of Energy there is, in addition to differences over the potential social and ecological risks of the dam, great mutual suspicion and a fundamental difference in philosophy. For some of the former, how Frelimo determines whether to build the dam is a measure of its commitment to establishing a robust democracy, for which the largely closed-door process so far does not bode well. Ministry officials seem to believe that transparency and consensus-building are secondary to this extremely poor country’s desperate need to develop, and to do so rapidly. As official thinking goes, the opportunity to exploit waterpower at a time when energy is in great regional demand must not be wasted in haggling over details.

In 2002, when environmentalists demanded the complete results of the feasibility study, they were rebuffed. Livaningo then formally petitioned the President of the National Assembly in 2003, requesting that critical documents from the UTIP report be released to the public to facilitate an informed national debate.

76 Intermediate Technology Consultants, *Final Report For WWF, The Mphanda Nkuwa Dam Project: Is it the Best Option for Mozambique’s Energy Needs?* (June, 2004), 61-62; Beilfuss and Brown, “Assessing Environmental Flow Requirements,” 127-138. According to Richard Beilfuss, “There is no structural or hydrological problem with flow releases if Mphanda Nkuwa is constructed—the flows would be released from Cahora Bassa and simply pass through Mphanda Nkuwa on the way downstream. However, the cost of lost hydropower sales is higher if both Cahora Bassa and Mphanda Nkuwa accept reduced power generation in exchange for releasing sluice gate flow downstream.” Personal communication with Richard Beilfuss.


78 Interview with Alda Salomão, Centro Terra Viva, Maputo, 16 June 2008; Interview with Carlos Serra Jr., environmental attorney, Maputo, 14 June 2008; Interview with Nazário Meguigy and Sérgio Elísio.

79 Interview with Daniel Ribeiro, Maputo, 6 June 2008.
debate on the merits of Mphanda Nkuwa. The courts eventually ordered strictly constrained access, which made scrutiny by those with the requisite scientific expertise difficult to impossible.

Meanwhile, UTIP commissioned a follow-up risk assessment in 2005, which was revised two years later. When it refused to release this latter study, Justiça Ambiental argued that the state’s “decision [to proceed] had been made even before the studies were initiated, [that] the study was simply one more ploy to pull the wool over people’s eyes” and that this critical information was only being hidden because the project had been approved “without any public consultation, without participation of its citizens and without taking into account our preoccupations.” Environmental attorney Alda Salomão, a former government official who heads the NGO Centro Terra Viva, said lack of government transparency regarding Mphanda Nkuwa threatened Mozambique’s fledgling democracy. “If we want to be a state ruled by laws, the state has to be consistent with this principle. Otherwise we are not ruled by laws. We do not think that it is healthy that Mphanda Nkuwa becomes a flawed precedent, in terms of the observance of the law.”

For almost a decade now, anti-dam campaigns around the world, including that of Justiça Ambiental, have built their arguments against new dam construction on the best practices laid out in a 2000 report of the World Commission on Dams (WCD). The final report, rather than calling for an end to dam construction, advocated balancing a country’s needs for electricity against the rights and livelihoods of people who would be most directly affected by a prospective dam—including people living downriver.

[Many] have not had an opportunity to participate in decisions that imply major risks for their lives and livelihoods, thus denying them a stake in the development decision-making process commensurate with their exposure to risk. Indeed, many have had risks imposed on them involuntarily. . . . [Such] risk bearers must be engaged by risk takers in a transparent process to negotiate equitable outcomes.

The report emphasized that with “too many” past dam projects around the world “an unacceptable and often unnecessary price has been paid...by people displaced, by communities downstream, by taxpayers, and by the natural environment.”

81 Interview with Daniel Ribeiro, 6 June 2008.
83 Ibid.
84 Interview with Alda Salomão, Maputo, 16 June 2008. See also O Pais, 23 November 2007, 3.
85 The Commission’s two objectives were: (1) to review the effectiveness of large dams and assess the effectiveness of alternatives for countries’ water resources and energy development; and (2) to develop criteria, guidelines, and standards for the “planning, design, appraisal, construction, operation, [and] monitoring” as well as the decommissioning of dams. World Commission on Dams, Dams and Development: A New Framework for Decision-Making (London, 2000).
86 Ibid., xxxviii.
87 Ibid.
To comply with the spirit of the report, the need for electricity must be fully demonstrated, alternatives explored, and impacted communities fully consulted from the beginning of the planning process, rather than presenting them with a fait accompli after all significant decisions have been made. As the report recognized, consulting people about a prospective dam who lack the knowhow to fully participate in the discussion is tantamount to not consulting them at all. Thus, capacity-building among potentially affected populations would have to be a pre-requisite to any kind of meaningful public input.

That the World Bank was one of the co-sponsors of the World Commission on Dams is quite important, since it was the single largest funder of the international dams industry. Due to growing criticism and highly publicized anti-dam struggles, most notably in India and Brazil, the Bank was forced to reconsider its unequivocal support for large dams, and, by the late 1990s, it had reduced by half the number of dams it was funding, although it still bankrolls several large dams, as well as a number of smaller projects. Because Mozambique hopes to receive financial support from the Bank for the construction of Mphanda Nkuwa—or at least its endorsement, which would be necessary to attract Western investors—it could not appear to ignore these recommendations.

From the beginning, the environmental activists rested their campaign on the WCD recommendations, which were the “only way to ensure that Mepanda Uncua is not a bad deal for Mozambique and its people.” The ongoing stonewalling of those seeking specific information about the dam was the first and most obvious violation of the WCD principles. The environmentalists also claimed that, to the extent the government did hold consultative meetings, they were poorly publicized and organized, and they lacked substantial input from members of the affected communities.

What worried the environmentalists above all else was the distinct possibility that the dam would, in fact, exacerbate the ecological and social destruction caused by Cahora Bassa. From what they could ascertain from the information they managed to acquire, it was clear that, while the feasibility study took some

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88 Ibid.
89 Ibid., xxxiii.
92 “Wherever possible the guidelines of the World Commission on Dams have been followed, particularly those guidelines which relate to the conduct of feasibility studies. It is anticipated that UTIP and the selected Developers will strive to follow the WCD principles throughout the project development process.” UTIP, *Mphanda Nkuwa Hydropower Project Feasibility Study* (Maputo, 2003), 16.
account of those living on the 65-km stretch of river between Mphanda Nkuwa and the city of Tete, it only briefly considered the effects further downriver—an unacceptable position:

The dam would cause daily fluctuations in the river, provoking mini-floods. Agriculture along the river would be constantly damaged by these mini-floods, and it would make navigation difficult and reduce fish resources. Important sandbanks would suffer erosion, destroying the ecological balance.  

Justiça Ambiental maintained that it was not sufficient for the state to focus only on the people living around the proposed dam site and exclude “all people in the reservoir, upstream, downstream and in the catchment areas whose properties, livelihoods and non-material resources are affected.” It also insisted that before any construction could begin, the Mozambican government would have to guarantee that adversely affected people would have the right to “negotiate mutually agreed, formal and legally enforceable mitigations, resettlement and development entitlements.”

At a stakeholders’ conference organized by environmental groups that was held in Maputo in October 2004, Justiça Ambiental representatives reiterated these principles. Officials from UTIP rejected them. UTIP insisted that, at least for the moment, the state was only prepared to consider the situation of the 260 families living within the zone of the future dam’s reservoir.

Larger organizations with international reach, such as the World Wildlife Fund and the International Rivers Network (IRN), an anti-dam group based in Berkeley, California, lent their support to the anti-Mphanda Nkuwa effort. “Mozambique’s rural poor are in indisputable need of electricity but, due to the high cost of extending the transmission grid, Mphanda will not contribute significantly to rural electrification,” concluded the IRN in a report. “Smaller decentralized options would better suit the needs of Mozambique’s rural majority.”

Concerns about Mphanda Nkuwa convinced a number of foreign researchers, some with ties to the Mozambique activists, to enter the fray as well. Perhaps no one outside Mozambique has been a more...
forceful critic than Bryan Davies, a leading South African ecologist who has worked in the Zambezi Valley for more than thirty years. In the 1970s, Davies had been a consultant to the Portuguese government, which suppressed his predictions regarding the dire consequences of building Cahora Bassa. Fearing a new round of environmental destruction, he told a reporter: "I am appalled at the decision to go ahead with the dam...which is ill-advised, expensive and...probably politically motivated."  

In 2006, Justiça Ambiental commissioned its own community risk assessment to determine the likely impact of Mphanda Nkuwa, which focused on two neighborhoods located near the proposed dam site. The study was particularly attentive to discrepancies in wealth and power within the bairros and questioned whether Mphanda Nkuwa might exacerbate existing inequalities. It made the following major findings: (1) the influx of several thousand male migrant dam workers could significantly disrupt the communities’ social fabric by increasing the sexual exploitation of women; (2) the resettlement schemes would likely strain existing support networks as people moved away from their families; (3) displacement could create fierce competition for the best lands and intensify existing inequalities and hierarchies of power; and (4) the mini-floods generated during peak power production would destroy vegetable gardens currently cultivated on the riverbed, which were a critical source of food during the long dry season.  

In part as a response to such public criticisms, the state commissioned a new feasibility study, whose findings were published in a multivolume report entitled The Scoping Study, elements of which filtered into the public domain. It confirmed the broad findings of the earlier UTIP report, and concluded that the construction and filling of the dam would neither increase seismic activity nor affect the flow of sediments down river on any appreciable scale. The report also maintained that the community at the dam site had, in fact, been informed of the dam and its consequences and generally welcomed the project. The investigators expressed confidence “at this stage of the studies that the implementation of Mphanda Nkuwa Hydropower project does not induce any Fatal Flaw.”  

At the same time, Mozambican authorities attempted to discredit international critics of Mphanda Nkuwa by characterizing them as irresponsible opponents of development. Sérgio Elísio distinguished the government’s position from theirs: “We do not agree with all of the standards of the World Commission on Resources Management and Poverty Reduction? A Pilot Case in the Lower Zambezi, Mozambique,” Physics and Chemistry of the Earth 30 (2005), 9.  

103 The East African Standard (Nairobi), 7 August 2002. Davis’s broader critique of Mphanda Nkuwa is framed largely in technical, rather than political terms.  


105 Ibid., 75-86.  


107 Ibid., 8.1.
Dams. We have our own laws. The WCD has a single agenda: To stop all development of dams. The U.S. has some 7,000 dams. We have one and we want to have two.”

Even some who were aware of the damage created by Cahora Bassa supported the plan to build Mphanda Nkuwa. “We already ruined everything [with Cahora Bassa] so we might as well get the added value of a new dam,” said a retired structural engineer formerly involved in the planning of Mphanda Nkuwa.

The Minister of Energy also harshly criticized in the media the local environmentalists, whom he characterized as privileged urban elites trying to impose their own dogmas on the nation—“people who live in houses with air conditioners.” In a 2008 interview at the Ministry, senior officials accused Justiça Ambiental of seeking to profit monetarily by selling strategic information to private parties.

Justiça Ambiental’s critique of Mphanda Nkuwa, however compelling it may be on its merits, has had only limited impact. While it was able to find partners and financial supporters among several organizations influential in the global environmental movement, efforts to form a grassroots organization among valley communities essentially foundered (see pp. 37-40 below), and it is difficult to assess the extent to which its activities influenced the state’s actions or provoked concerns among potential investors. As Daniel Ribeiro, lead organizer of Justiça Ambiental, conceded recently, the group is little more than a “dog that barks but does not bite.”

What is clear, however, is that financing for the dam project has lost momentum since 2006, when China committed its billions. Sometime between then and 2008 that commitment was withdrawn.

Government officials then brokered a partnership between two Mozambique firms (one of them, as mentioned above, reportedly tied directly to Guebuza) and the Brazilian mega-construction firm, Camargo Corrêa, to find

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108 Interview with Nazário Maguigy and Sérgio Elísio. Mozambique, in fact, has a number of dams, although none nearly on the same scale as Cahora Bassa or Mphanda Nkuwa.

109 Interview with anonymous engineer, Cape Town, 18 March 2011.


111 Interview with Nazário Maguigy and Sérgio Elísio.

112 Interview with Daniel Ribeiro, 10 March 2010.

113 Why China pulled out is unclear. In response to our questions, Sérgio Elísio of UTIP wrote: “The process with the Chinese was proving slow, contrary to what we had been led to believe (perhaps this is just how they conduct business) and when the current consortium’s proposal appeared on the table, a proposal to develop the project without burdening the Mozambican state, the current accord was sealed.” Email from Sérgio Elísio to David Morton, 25 November 2008.

The real answer might have something to do with a Chinese proposal, similar to the colonial-era Portuguese scheme to resettle Portuguese peasants in the Zambezi Valley. Loro Horta reported, citing anonymous sources, that China had tied the financing of Mphanda Nkuwa to the settlement of as many as 20,000 Chinese farmers in the Zambezi Valley. Mozambican officials allegedly refused this extraordinary condition. [Loro Horta, “The Zambezi Valley: China’s First Agricultural Colony?” Africa Policy Forum, Center for Strategic and International Studies, 9 June 2008, http://csis.org/blog/zambezi-valley-china’s-first-agricultural-colony] Elísio said that he was not aware of any such negotiations.
financing for the dam and to initiate construction.\textsuperscript{114} As of December 2010, however, no financing had been secured.\textsuperscript{115}

**A PROFILE OF CHIRODZI-SANANGWE, SITE OF THE PROPOSED DAM**

Here, in Part II, we shift our focus from Maputo and look at Mphanda Nkuwa from the perspective of Chirodzi-Sanangwe, the relatively isolated riverside community of approximately 2,000 people in Tete Province that will be displaced by the planned dam and its reservoir. In Chirodzi-Sanangwe people have lived with the prospect of a new dam—fuzzy though the details may be—for almost a decade.

The Zambezi is particularly narrow adjacent to Chirodzi-Sanangwe, which made this area of regional strategic importance long before a dam was in the works.\textsuperscript{116} Chirodzi-Sanangwe derives its name from the two rivers that meet in the central village of the community. The Sanangwe carries on northward for about another seven kilometers until it flows into the Zambezi. Approximately 600 people live in the central village along the confluence of these two rivers, 1,000 on homesteads scattered among the hills within a two-hour walk, and the remaining 400 or so in neighborhoods on the north and south banks of the Zambezi.\textsuperscript{117} Nearly all will have to be relocated if Mphanda Nkuwa is built, as will a few dozen families residing in Chococoma, just downriver from the planned dam.

Families in the upland hills grow sorghum and maize in the rainy season, and many raise cattle and goats. Those living beside the Zambezi also fish and, because the river nourishes riverside soil with rich sediments, additionally cultivate maize during the dry season. Fish and dry-season maize are sold to families who live on higher ground, although this trade—which long sustained both parts of the community—has diminished dramatically since Cahora Bassa’s construction.\textsuperscript{118} During the dry season, as grain stocks run short, both riverside and upland families supplement their diets with the minimally nutritious maçanica fruits that grow in bushes along the Zambezi.

\textsuperscript{114} The provisional agreement was reached in early 2008 and finalized in late 2010. Camargo Corrêa, one of the world’s leading builders of dams, is the lead partner, and ESKOM has been targeted as a likely investor. Macauhub 25 January 2008 \url{http://www.macauhub.com.mo/en/news.php?ID=4757}; AIM 23 December 2010; Hanlon, “Mozambique’s Elite,” 8.

\textsuperscript{115} AIM 23 December 2010.

\textsuperscript{116} Chirodzi-Sanangwe is an easy place to cross from the north to the south bank, and for much of the 20th century Mozambicans and Malawians did so to work on commercial farms in Zimbabwe. Interview with Gadeni Gaspar, Chirodzi-Sanangwe, 3 August 2009; Interview with Biquane Chazia, Chirodzi-Sanangwe, 3 August 2009; Interview with Marialena Dique, Chirodzi-Sanangwe, 8 August 2009; Interview with Rabia Juma, Farouk Ismail Hassam, and Abdul Gafar Ismail Hassam, Tete City, 12 August 2009.

\textsuperscript{117} Interview with Adelino Tioneque, adjunct Frelimo secretary of Chirodzi-Sanangwe.

\textsuperscript{118} Interview with Bonifácio Biquane, Alexei Chiressan, and José Ferro, Chirodzi-Sanangwe, 5 August 2009. See also Morrissey, “Livelihoods at Risk,” 28-36; Carlos Ramos de Oliveira, *Os tauaras do Vale do Zambeze* (Lisbon: Junta de Investigações Científicas do Ultramar, 1976), 25-61.
Beginning in the late 1960s, when the liberation war came to Tete, Chirodzi-Sanangwe, like most of Mozambique, suffered through a seemingly endless series of convulsions. Portuguese forces first built a lookout post atop a high hill just below the Zambezi-Sanangwe confluence, to keep watch on activities below. Then, in 1973, residents were forcibly relocated by Portuguese troops to a camp about ten kilometers away, where they were deposited on tiny plots behind a wire fence, while their homes and fields were torched. Intended to starve out Frelimo guerrillas, it was the villagers who felt the brunt of the tactic in the form of hunger, malnutrition, and cholera.\(^{119}\)

In 1974, in the months after the cessation of hostilities and before official independence, people returned to their old village, rebuilt their huts and granaries, cleared fields for sorghum and maize and began restocking herds that had been decimated during the war. But there would be no return to stability. In December of that year, a few months after agreeing to an independence timetable, the Portuguese completed the dam wall of Cahora Bassa, permanently altering the natural flow of the Zambezi through Chirodzi-Sanangwe and central Mozambique. In the late 1970s and 1980s, a new disaster beset Chirodzi-Sanangwe and the entire Mozambican side of the Zambezi Valley. Renamo forces roamed Tete, forcing villagers to flee into the bush for weeks at a time to escape the violence. Homesteads were burned, and cattle and goat stocks were once more devastated. When drought struck, many sought refuge in Zimbabwe.\(^{120}\)

In an area where rainfall has historically been low and erratic, the duration of the rainy season has dramatically shortened over the last decade or so, likely due to global climate change. The abbreviated rainy season may even eclipse the new dam’s construction as the principal preoccupation of Chirodzi-Sanangwe.\(^{121}\) When people were asked about their ability to produce enough staple crops and vegetables to sustain themselves, the conversation almost always turned to the lack of rain.\(^{122}\) Some residents recalled that in the past the Chirodzi and Sanangwe rivers always had water, allowing cultivation of vegetable gardens on their banks year-round. This water also provided drinking water for their livestock and supported fishing. Now, these rivers run dry for much of the year.\(^{123}\) When the rainy season is too short for

\(^{119}\) Interview with Morais Sole, Chirodzi-Sanangwe, 4 August 2009; Interview with Dodina Machesso and Morais Sole, 7 August 2009; Interview with Adelino Tioneque, 6 August 2009.

\(^{120}\) Interview with Morais Sole; Interview with Dodina Machesso and Morais Sole; Interview with Tilha Chafewa and Sieda Denja, Chirodzi-Sanangwe, 5 August 2009; Interview with Bonifácio Biquane et al.; Interview with Vincent Gadeni and Gadeni Gaspar, Chirodzi-Sanangwe, 8 August 2009; Interview with Fidelis Miguel Chakala, Xavier Sai, and Adelino Tioneque, Chirodzi-Sanangwe, 10 August 2009.

\(^{121}\) Morrissey found that in both Tete neighborhoods he surveyed, “drought” ranked as the greatest perceived threat to livelihoods, followed by crocodiles. Morrissey, “Livelihoods at Risk,” 62.

\(^{122}\) Interview with Francisco Josefe Fondo, Josefe Fondo, Paulinha Salanhar, et al., Chirodzi-Sanangwe, 7 August 2009; Interview with Morais Sole; Interview with Dodina Machesso and Morais Sole; Interview with Chivio Eliem Cheiro and Jake Thaio Katuluz, Chirodzi-Sanangwe, 3 August 2009.

\(^{123}\) Interview with Vincent Gadeni and Gadeni Gaspar; Interview with Fidelis Miguel Chakala, et al.; Interview with Daniel Ernesto Makaze, Chirodzi-Sanangwe, 10 August 2009; Interview with Marialena Dique.
the maize and sorghum to reach maturity, food stocks run out during the dry season. During David Morton’s visit in August 2009, several months before the beginning of the rains, some granaries were empty, or nearly so. Women living alone were especially vulnerable, and households without adult men were already making meals of what is normally supplemental fare—**maçanicas** and **malambe**, the meat of the baobab pod.\textsuperscript{124}

Since 1974, Cahora Bassa has crippled the ability of Chirodzi-Sanangwe to deal with the impacts of war and lack of rainfall. Previously, the Zambezi rose only in the rainy season, and the floods were expected and planned for, although their arrival could not be predicted with precision. Now the sluice gates at Cahora Bassa can open at anytime, and a sudden, unforeseeable rush of water can wash away riverside gardens for over a hundred kilometers.\textsuperscript{125} The important dry-season maize harvest, produced by riverside farmers but relied upon by both them and upland families, now only rarely succeeds. And fishing in this area of the Zambezi has significantly declined.\textsuperscript{126}

The experience of Morais Sole, in his 70s, and his wife, Dodina Machesso, in her 60s, starkly illustrates how Cahora Bassa impacts Chirodzi-Sanangwe.\textsuperscript{127} Both have always lived along the Zambezi—for the last fifty years on the south bank just north of Mphanda Nkuwa. In the rainy season they, several of their children, and their children’s families stay in thatched-roof homes some meters above the river to tend their sorghum fields. In the dry season they grow maize directly on the river.\textsuperscript{128} When Morton visited his maize garden during the 2009 dry season, Morais Sole said the cobs were still weeks away from being ripe. His prior two crops this dry season had been largely destroyed, and he had little hope for the third. Too much could go wrong in the last few weeks before the harvest.

Destructive river surges have been intruding on the regular patterns of dry season farming since the late 1950s, with the opening of the giant Kariba Dam on the Zambezi between Zimbabwe and Zambia. Construction of Cahora Bassa in the 1970s has made these surges even bigger. They come without warning, wiping out crops and huts, carrying away canoes, and weakening the productive capacity of riverside land. “People couldn’t sleep, people were scared,” Morais Sole said, recalling the surges that followed the closing

\textsuperscript{124} Interview with Marialena Dique; Interview with Tilha Chafewa and Sieda Denja; Interview with Naita Sirio Siawalha, Chirodzi-Sanangwe, 9 Aug. 2009.

\textsuperscript{125} Interview with Vincent Gadeni and Gadeni Gaspar; Interview with Morais Sole; Interview with Bonifácio Biquane et al.

\textsuperscript{126} Interview with Bonifácio Biquane et al.; Interview with Morais Sole; Interview with Dodina Machesso and Morais Sole; Interview with Maginta Cheiro, Sieda Spring, and Magamezo Tioneque, Chirodzi-Sanangwe, 25 June 2008.

\textsuperscript{127} This section on Morais Sole and his family is based on interviews with him alone on 4 August 2009 or with him and his wife Dodina Machesso, on 7 August 2009. For similar stories of riverside life, see interview with Maginta Cheiro et al.; Interview with Araújo Tioneque, Chirodzi-Sanangwe, 25 June 2008; Interview with Vintina Colar, Macaniso Domingo, and Carlos Alfonso Jaime, Chococoma, 26 June 2008.

\textsuperscript{128} Women are the ones who grind the maize into flour during the dry season. Those with cash hike to the village center to have their maize or sorghum milled at the area’s single diesel-powered mill. Morais Sole’s family rarely had cash on hand.
of the Zambezi by Cahora Bassa. The fishing season was truncated to three months out of the year. What followed was “many sicknesses” in the community.

Since the damming of the Zambezi, riverside life has involved a careful calculation of risk. Despite the labors and apparent futility of growing maize alongside the river, Morais Sole and other farmers along the river stubbornly continue to buy seeds and plant maize. They are willing to endure heavy losses because the surges often spare some stalks and once in awhile a large crop manages to reach maturity. In fact, in 2008, the riverside lottery paid off for Morais Sole. One of his maize crops survived and gave him “his best harvest ever.” For all the capriciousness of the Zambezi, he and his wife had learned to live with it.

MAPUTO COMES TO THE COUNTRYSIDE

The farmers of the Zambezi Valley and policymakers in Maputo are not only 2,000 kilometers apart, but they are also separated by vast differences in wealth, formal education, life experience, and above all else, power. Each side has a body of knowledge inaccessible to the other. Energy Ministry officials have made little effort in bridging that gap, despite their proclaimed interest in doing so. Conversations with community members in Chirodzi-Sanangwe and in neighboring Chococoma, as well as reports by outsiders, provide glimpses of what occurred during the various official visits to the planned dam site since 2000. Taken together, they paint a picture of tightly scripted encounters in which Ministry officials set the agenda and determined the outcome. The construction of Mphanda Nkuwa was discussed as a foregone conclusion. “It’s not public participation, it’s a presentation to the public,” said Daniel Ribeiro, Justiça Ambiental’s lead organizer.129

Community residents did not usually receive much advanced notice of the few meetings that actually occurred. Typically, the local Party Secretary or his assistants would inform them that they were expected to attend a meeting the following day during which officials from Maputo would discuss new plans for developing the region and increasing employment. Araújo Tioneque, who lives directly beside the Zambezi, recalled that, after a short introduction and a brief discussion of the new dam and the opportunities it would create, state officials informed the local population that, some time in the near future, they would have to abandon their homeland and be relocated. These officials provided no indication of when this move would occur or where the peasants would be relocated.130 Another resident, Francisco Josefe Fondo, who is secretary of the neighborhood that straddles the Zambezi, recalled that the group that came from Maputo did not properly introduce themselves. He also recalled that the visitors asked the people where they wanted to be resettled and what they would like to find there, and the residents indicated that they wanted

129 Interview with Daniel Ribeiro, Maputo, 23 March 2011.
130 Interview with Araújo Tioneque.
a school and a hospital. “The [visitors] said that it would be a good thing, that there would be employment.” Not up for discussion was the question of building the dam or not.¹³¹

Neither before nor after did the Ministry provide members of the communities with sufficient information to enable them to participate even superficially in the decision-making process. Whatever material was produced by the state was written either in English or Portuguese—languages that few, if any, members of these communities could read—and remained stored in the Ministry in Maputo (see pp. 19-20). A 2003 report by FIVAS, a Norwegian NGO, confirmed the many ways in which the government had silenced and marginalized the riverside communities, thereby failing to comply with even the minimal WCD standards.

Today there seems to be an enormous knowledge gap between the developers and the local affected people. Generally people do not know much about the project and its consequences, and the consequences they are aware of are generally the positive ones like compensation and job opportunities. The local people have generally not been involved in the planning and decision-making process. . . .There seems to be a need for capacity building among the villagers on the issue of dealing with and negotiating over compensation, and this must be secured before final stages and a tender of the project. (emphasis in original)¹³²

It also documented the state’s unwillingness to engage downriver communities.¹³³ The World Wildlife Fund came to a similar conclusion the following year.¹³⁴

At meetings with government officials, those in attendance asked few if any questions, nor did they challenge the plan in any way. Adjunct Party Secretary Adelino Tioneque recalled that on a recent visit by the Minister of Energy, no one questioned the minister on the plan for relocation—a plan that had yet to materialize—nor did anyone take notes.¹³⁵ The silence of those who attended informational meetings likely has several explanations: the top-down culture of governance in Mozambique, in which government decisions are not made subject to debate; a feeling of powerlessness among some; and the confidence of others that they will benefit from the dam’s construction and relocation.

Little has changed over the past decade. In 2008, the Mphanda Nkuwa consortium, led by Brazilian contractor Camargo Corrêa, contracted with Impacto, a Mozambican environmental consulting firm, to conduct an updated environmental impact statement—one that would perhaps be more reassuring to potential investors. Once again, dam planners went through the motions of holding public meetings, this

¹³¹ Interview with Francisco Josefe Fondo, Chirodzi-Sanangwe, 25 June 2008.
¹³³ “Particularly affected people living downstream have been neglected in the whole process.” Ibid.
¹³⁵ Interview with Fidelis Miguel Chakala, Xavier Sais and Adelino Tioneque, Chirodzi-Sanangwe, 10 Aug. 2009.
time in Maputo and in Tete City in 2009, to discuss the scope of its study and present initial findings. The Tete meeting was held in the newly refurbished, air-conditioned conference room of the Hotel Zambeze. Present were political leaders—administrators of several districts, officials from the local water authority and Sérgio Vieira, a longtime Frelimo cadre who was then head of the Zambezi Development Authority (known by its Portuguese initials GPZ)—and representatives of some major businesses. At the head table were Impacto employees, a representative of the consortium and UTIP’s Sérgio Elísio. It was an elite gathering. It appeared that not a single person from Chirodzi-Sanangwe had been invited.

The Impacto spokesperson made it clear from the beginning that, after a preliminary study, they would find no “fatal flaw” making Mphanda Nkuwa unviable. The PowerPoint presentation that followed emphasized the positive economic impacts of the dam for Mozambique, and the accompanying written materials highlighted that hydroelectric power was clean and renewable. Although Impacto was hired to conduct an independent environmental and social assessment, the tone of the meeting was unabashedly promotional.136 While waiting at the airport for the last flight to Maputo, Sérgio Elísio was asked about the leadership of Chirodzi-Sanangwe. It was clear from the conversation that he did not know who the leaders were. When questioned about the place to which residents will be relocated, he replied, “Wherever it is, it has to be better than where they are.”137

LOCAL REACTIONS TO MPHANDA NKUWA

Virtually from the moment that Chirodzi-Sanangwe was targeted as the site of imminent development, it fell into a state of near paralysis. In the early 2000s, as Mphanda Nkuwa gained momentum, government representatives conducted a survey of all homesteads to determine future compensation levels for inundated property. Based on the reasonable assumption that their investments would soon be washed away, and the fear that they would not be compensated for property improvements not recorded in the survey, residents stopped upgrading their houses. Soon afterwards officials stopped all in-migration, and those not related to residents of Chirodzi-Sanangwe (such as by marriage) were prohibited from settling in the community. Work on a new school, to replace a rickety structure made of tree branches, also ceased—even though thousands of bricks had already been fabricated for that purpose.138

Unlike the attitudes of those forcibly relocated to make way for Cahora Bassa, where opposition to displacement was nearly universal, no one dominant or authoritative voice captures the complex and

137 Comments made to David Morton, Tete Airport, 13 Aug. 2009.
138 Interview with Fidelis Miguel Chakala et al.; Interview with Virgílio Machaia Djimo, 25 June 2008. In the neighboring Chococoma community, where only a relative handful of families will be displaced by the dam, there are a number of concrete buildings along the main track, most prominently a new school.
diverse feelings in Chirodzi-Sanangwe about Mphanda Nkuwa. There was a general agreement that the dam would be “good for Mozambique.”

But whether the dam and relocation would benefit them was treated as another question entirely. It was not simply a matter of being “for” or “against” the dam. Rather, there was a broad spectrum between hope that relocation would lead to a better future and opposition to moving. In fact, some measure of hope and fear was often expressed by the same individual.

Responses tended to correlate to one’s relative economic vulnerability. Because the government promised to indemnify people against their losses, for those with seemingly more to lose—men with larger herds and access to good land—the risks associated with relocation were actually less than for those with little property. Older, single women who lacked material wealth stood to lose what little they had: access to the small things that sustained them from day to day. Some of the former would also be better able to secure good land in the new location and whatever job opportunities the dam might offer.

Daniel Ernesto Makaza, a veteran of Frelimo’s war of liberation, spoke brightly of the energy the dam would make “for everyone,” the greater opportunities for fishing, better access to water for animals, and the possibility that the land would yield better crops. For Virgílio Machaia Djimo, one of the community’s three schoolteachers, the dam couldn’t be built quickly enough. He was also confident that the government would make conditions good where they resettled. Both were men of some means and some standing.

Even some of lesser means thought the dam would bring a new town beside the waters—one like Songo near Cahora Bassa. Some in the community favor a nearby site for possible relocation. The waters of the reservoir formed by Mphanda Nkuwa will stop at Nhasicana, where many people in Chirodzi-Sanangwe have relatives, and the two places have long shared the ancestor spirits that keep the land fertile. What makes relocating a particularly attractive option is that sustaining a livelihood beside the Zambezi has become ever-more difficult—in large measure because of the conditions created by Cahora Bassa more than 35 years ago. Moreover, because the economic and social life in the community has been paralyzed for almost ten years, for some, the uncertainties of relocation would at this point be preferable to being stuck in never-ending limbo in Chirodzi-Sanangwe.
There are also a number of people in Chirodzi-Sanangwe, however, who outright fear the dam. “It’s a reasonable living here,” said Vincent Gadeni. “There, where they’re going to go, they don’t know what’s going to happen. It could be worse there. It’s possible they won’t even have malambe!” Others feared that maçanicas, another vital source of emergency food, would not grow beside the catchment in Nhasicana.\textsuperscript{146} “They might have better houses, a school, a hospital, but what’s important is food, water,” continued Vincent Gadeni. “These are the things important for people. A school, a hospital—without food people are going to abandon that place.”\textsuperscript{147}

Many of those most anxious about the dam are older people and single women who are less equipped to deal with the shock of relocation and unlikely to benefit from any cash-earning opportunities that may ripple through the province from the dam’s construction. Marialena Dique, a single woman in her 60s and too weak to work in the fields, depended on charity and a small vegetable garden fitfully watered by the Chirodzi. She worried about securing such a location in Nhasicana.\textsuperscript{148} “We’re accustomed to living here, to producing food here,” said Sieda Denja, a woman in her 50s who lives with her mother. “We don’t know where we’re going to be relocated to. Since the colonial era we have always lived here, we passed all this time, until today. This place is where we are. The little we have can keep a family going.”\textsuperscript{149}

In the neighborhoods at the Zambezi’s edge, sentiments were more clearly informed by memories of Cahora Bassa—not only what happened to the water flow, but also what happened to the people upriver displaced during forced removals. These riverside villagers, who were more isolated from both the outside economy and schools and health services than those on higher ground, stood to gain perhaps the most from the promises of relocation. But they also faced the greatest risk to their food security, which depended on fishing, dry-season cropping, and riverside vegetable gardening. “We are going to be relocated from here for another place,” said Carlos Alfonso Jaime, the Frelimo secretary of Chococoma’s riverside neighborhood. “There we are going to have to request machambas from the population who lives there. Here I am a fisherman. If I go there, perhaps there will not be a place to fish.”\textsuperscript{150}

Francisco Josefe Fondo, the 38-year-old Frelimo secretary of Chirodzi-Sanangwe’s riverside neighborhood, wanted to see the dam built but nonetheless fretted that there was no formal agreement between the government and the community to avoid what happened with Cahora Bassa. He mentioned how, following

\textsuperscript{146} Interview with Marialena Dique, who also said “This year, the hunger...is going to kill me. There’s nothing to eat.”
\textsuperscript{147} Interview with Vincent Gadeni and Gadeni Gaspar.
\textsuperscript{148} Interview with Marialena Dique.
\textsuperscript{149} Interview with Tilha Chafewa and Sieda Denja. Both women were subsisting almost solely on malambe at the time of our conversation. Sieda Denja said they did not have a single animal, such as a chicken or a goat.
\textsuperscript{150} Interview with Vintina Colar et al.
relocation, some became easy prey for lions.\textsuperscript{151} Others also expressed fears of suffering a similar fate as those displaced by the earlier dam.\textsuperscript{152} No doubt the memories of forced relocation to an \textit{aldeamento} in the 1970s and hiding out in the hills to escape Renamo attacks in the 1980s also fed anxieties of what the relocation forced by Mphanda Nkuwa might bring.

Many interviews, whether marked by optimism or pessimism or a measure of both, were framed by the widely shared understanding that, whatever happened, it was out of their hands. “What am I going to do?” said Fidelis Chakala, a community’s official, “They’re going to close the dam, and we have to leave.”\textsuperscript{153} Araújo Tioneque, remarking on older people who fear relocation, said, “They were born here, they’ve been here, but they have to leave because it’s an order.”\textsuperscript{154}

While the people in Chirodzi-Sanangwe potentially face the most dramatic transformation in their lives due to the dam, the most significant impact very likely would be on downriver communities. Downriver many are unaware of plans for Mphanda Nkuwa. But because floodplain agriculture and fishing figured more prominently in their lives than in Chirodzi-Sanangwe, sentiments are not mixed. People were insistent that the pre-Cahora Bassa flow regime be restored—a possibility that Mphanda Nkuwa would make unlikely. When asked how to restore former conditions, Mário Chambiça and two other local residents explained that, while Cahora Bassa need not close, “the directors of the dam [should] recognize our needs and [only discharge] water [when] we are not farming [in our river gardens].”\textsuperscript{155} Aniva João, Regi Ndacomalero, and Pedro Franque, were even more explicit.

We want the continuation of the floods of the past. In that time we were secure because there were many fish and farming gave us a lot of food. The old flood system enabled us to plant on the fertile islands and near the river, which provided most of our food. Now the floods come any time of year and destroy our crops. . . and it is difficult to catch fish.\textsuperscript{156}

At the end of a similar discussion, Vale Raposo expressed the frustration and anger of his compatriots: “We used force to expel [former Portuguese dictator Marcello] Caetano because we suffered under the Europeans. . . but the current government has not resolved our problems.”\textsuperscript{157}

\textsuperscript{151} Interview with Francisco Josefe Fondo.
\textsuperscript{152} Interview with Francisco Josefe Fondo; Interview with Maginta Cheiro \textit{et al}.; Vintina Colar \textit{et al}.
\textsuperscript{153} Interview with Fidelis Miguel Chakala \textit{et al}.
\textsuperscript{154} Interview with Araújo Tioneque.
\textsuperscript{155} Interview with Mário Chambiça, Mandala Doscasaca, and António Vinte Chimbangire, Gumancanze, 13 July 2000.
\textsuperscript{156} Interview with Aniva João, Regi Meque Ndacomalero, and Pedro João Franque, Chirembwe, 16 July 2000.
\textsuperscript{157} Interview with Vale Raposo, Chemba, 18 July 2000.
ORGANIZING RIVERSIDE COMMUNITIES

In 2003 Justiça Ambiental received funding from foreign donors to begin “capacity building” in the area—an effort to get people in the Zambezi Valley informed about the dam, and also involved in the decision-making process. Bringing the riverside communities into the decision-making loop proved to be arduous and far more complicated than the environmentalists had anticipated. Explaining what was happening to the people in Chirodzi-Sanangwe and elsewhere was more than a matter of translating Portuguese into Nhungwe or Sena, which are the predominant local languages. For one thing, most people had never even seen Cahora Bassa, said Daniel Ribeiro of Justiça Ambiental. He and his colleagues had difficulty explaining to people the sheer scale of hydroelectric dams or even that Cahora Bassa—a wall taller than five trees—was the reason for the changed river flow they had experienced. In communities further downstream, organizers also realized that peasants were completely unaware of the long-term consequences of the new dam.159

One of the major challenges faced by the Maputo-based activists was to convince skeptical peasants that they were not powerless. Most simply presumed that, if the state decided to move them, they had no recourse. Few were aware that the legal reforms introduced in the 1990s prevented the kind of summary expulsion from their land that had been possible in the past.160 “Before we even talked about the dam,” recalled Daniel Ribeiro, “we had long discussions with villagers about their constitutional and judicial rights.”161 The activists also made the members of the riverside communities aware of their right to compensation for losses caused by the new dam.162

That they were urban activists with little or no ties to the Zambezi hinterland made this task quite difficult, and, as outsiders, they often encountered high levels of confusion and distrust. “In some communities it took some time before people gained confidence and began to open up and discuss the issues that concerned them,” wrote two Justiça Ambiental researchers in a 2004 report. “National elections were close by and people feared talking about things that do not work well to avoid appearing to belong to the opposition.”163

159 Mañez and Scodanibbio, “Mphanda Nkuwa,” 13-14.
161 Interview with Daniel Ribeiro, 26 September 2010.
162 Ibid.
163 Mañez and Scodanibbio, “Mphanda Nkuwa,” 12.
The high point of Justiça Ambiental’s organizing work came in October 2004 when it helped to organize a meeting between representatives of the riverside communities and state officials. Approximately 70 peasants, fishermen and NGO representatives from the four provinces through which the Zambezi flowed participated in a three-day workshop in Tete City with officials from the Zambezi Water Management Authority and the Zambezi Development Authority. Here, for the first time in a formal public venue, members of these communities had a chance to tell their stories bluntly and powerfully and, at times, even to express their outrage at the suffering Cahora Bassa had caused them.164 The attendees from the riverside communities also came to understand that, although separated by hundreds of kilometers, they shared a common history and faced a common threat. At the end of the conference the participants issued a 12-point declaration entitled “Voices from the Zambezi.” Moderate in tone, it celebrated “the Zambezi River [as] the source of life for our families” and also acknowledged “the important role of Cahora Bassa dam and its electricity as a means for economic development.”165 Much of the document, however, highlighted the dam’s adverse impact on agriculture and fishing—caused by erosion, flooding and the lack of enriching sediment—and the drying up of the delta which destroyed the mangroves and related prawn fisheries. Reflecting the sentiments of downriver communities, the Declaration also called for the establishment of pre-dam “environmental flow releases [whose] implementation would significantly assist in recovering the different subsistence activities along the river.”166 The signatories indicated that they would not oppose Mphanda Nkuwa if they also received certain guarantees, including the establishment of an early warning system on dam releases and public consultation before the project was implemented.167

The participants also decided to form a regional organization, Vozes do Zambeze (Voices of the Zambezi) to survey some 38 communities along the length of the Zambezi River on the Mozambican side, create an inventory of concerns and advocate for those concerns at the provincial and national levels. After the meeting, Justiça Ambiental organizers travelled to various communities in the Zambezi Valley searching for people to join this organization. Due to bureaucratic hurdles, it took until 2006 to get the group officially registered. Because registration required all leaders be simultaneously present in Tete City to sign the necessary paperwork, the leadership team was composed solely of people who lived there, since no one else could afford the cost and inconvenience of such a trip. The entire executive board of Vozes do Zambeze was

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164 Ibid.
165 “Voices from the Zambezi,” 1.
166 Ibid, 2.
167 Ibid.
urban and male, and since the positions were unpaid, all, though not wealthy, were wage earners. The president was Chivio Eliem Cheiro, our translator, who was then 27 years old.168

Justiça Ambiental secured funding for the organization. According to Chivio Eliem Cheiro, it got by on a few thousand dollars the first year, which covered nothing beyond visits to communities within Tete Province. Riddled by infighting and accusations of corruption, and crippled by lack of funds, Vozes do Zambeze did little to nothing after 2008. Justiça Ambiental is currently helping the group seek more funding.169

CONCLUSION

We have sought here to write a history of something that has not yet happened—a dam that is neither financed nor built and may never be. Our goal was not to predict the future, but rather to demonstrate that what Mphanda Nkuwa might do is very much part of the past—the past decade and also the past half-century. The idea of Mphanda Nkuwa and its developmentalist underpinnings have survived more or less intact from the colonial period, through the years of socialist governance, and they have been given new impetus in the age of structural adjustment and neo-liberalism—a time when key sectors of the economy are controlled by Frelimo elites in alliance with foreign investors. The destructive history of Cahora Bassa has done nothing to temper the zeal of government officials to get Mphanda Nkuwa built.

Before the first slab of concrete is poured at the new dam site, there needs to be intense scrutiny and serious public debate about the proposed project. Among the contentious issues that must be tackled are the following: Is it feasible to build Mphanda Nkuwa and simultaneously restore a semblance of the pre-dam flow regime? If investors’ concerns about maximizing income precludes this possibility, do the benefits of Mphanda Nkuwa to Mozambique outweigh the very substantial social, economic, and ecological costs to the riverside communities and their environment? If the new dam is in the overwhelming public interest, as government officials claim, what responsibility does the state have to use income generated from the two dams to promote local industry and jobs, and build schools, health clinics, and other infrastructure to compensate riverside communities for the turmoil they have experienced and will continue to experience for bearing the burden of development? Finally, are there more efficient and less costly ways of electrifying the countryside and stimulating local economies with solar and wind power and smaller dams, as a number of environmentalists suggest? The failure to address these issues, which are preeminently political, will insure that the residents of the Zambezi Valley remain marginalized and impoverished.

168 Interview with Daniel Ribeiro, 6 June 2008; Interview with Fabião Manuel Chazia and Chivio Eliem Cheiro, Tete City, 12 August 2009.

169 Interview with Fabião Manuel Chazia and Chivio Eliem Cheiro; Personal communication with Anabela de Lemos.