

HYDRO-POWER AND THE PROMISE OF MODERNITY AND DEVELOPMENT IN GHANA: COMPARING THE AKOSOMBO AND BUI DAM PROJECTS

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In 2007, as Ghanaians were suffering another electricity crisis with frequent power outages, President J. A. Kufuor celebrated in a festive mode the sod cutting for the country's third large hydro-electric dam at Bui across the Black Volta in the Brong Ahafo Region.¹ The new 400 megawatt (MW) power project promises to guarantee Ghana's electricity supply and to develop neglected parts of the north. The Bui Dam had been planned since the 1920s as part of the original Volta River Project: harnessing the river by producing ample electricity for processing the country's bauxite. In the early 1960s, when President Kwame Nkrumah began to implement the Volta River Project by building the Akosombo Dam, Bui was supposed to follow as part of a grand plan for the industrialization and modernization of Ghana and Africa. Since the 1980s, periodic electricity crises due to irregular rainfall have undermined Ghana's reliance on Akosombo. By the turn of the century, these crises had created a sense of urgency to realize the Bui project in spite of an increasing international critique of large dams.

Although there is more than a forty-year gap between the

¹ See press reporting in *Daily Mail*, 24 August 2007, and the *Ghanaian Chronicle*, 27 August 2007. The sod cutting ceremony, analogous to a grass-cutting or ribbon-cutting event, symbolically marks the beginning of construction for a major infrastructure project. Stephan Miescher would like to acknowledge the American Council of Learned Societies and the University of California, Santa Barbara for the support of his research. Dzodzi Tsikata acknowledges the International Development Research Centre of Canada (IDRC)'s Think Tank Initiative for the support of her research.

commissioning of Akosombo in 1966 and the beginning of work on the Bui Dam, the two projects have striking similarities in the discourse of modernization and development they have generated among government officials and in local communities. And yet, they could not have been built in more different times. Akosombo, constructed in the period of early independence, came to symbolize confident nationhood and the dream of industrialization, while Bui is being launched in the post-adjustment era when this dream has been in abeyance for over twenty years. Further, it is a time when the romance with large dams has been tempered by decades of global mobilization against the negative environmental impacts of dams, culminating in the World Commission of Dams. The wealth of information generated by these movements challenged the centrality of dams to industrialization and development.²

This article explores the historical linkages between the dams at Akosombo and Bui. It compares their place in Ghana's development aspirations, paying attention to the similarities and differences in context, size, and technologies; their contribution to the power situation in Ghana, and their financing and institutional arrangements. The article also examines the particularities of the modernization and development discourses of the two projects, the environmental concerns raised about them, and their provisions for the treatment of dam affected communities.

Modernization

The nature of modernization as it has been inflected and transformed since the era of African independence is a subject of cyclical interest in scholarship on Africa. During the 1950s and 1960s, the promises of modernity, and the route to it—modernization—belonged to the most powerful and popular discursive strategies within Africa's emerging nations. These strategies were not only evoked by nationalist politicians and academic experts, but also elaborated upon within popular culture.

² World Commission on Dams 2000. For an overview of international debates around large dams, see Tsikata 2006: 388-92 and McCully 2001: xv-lxxii.

Modernization referred to the historical transformation of new nations embracing the processes of rapid industrialization and electrification. Infrastructural investments like large dams were seen as a guaranteed path to achieve such objectives. Social scientists, who served as influential advisors, offered a teleological theory that postulated a series of socioeconomic changes to explain the shifts from an older traditional way of life to a newer, better way of being. For these theorists, modernity consisted of a “package” to be reached through a series of transitions: from subsistence economies to industrialized economies, from subject to participant political cultures, from extended to nuclear kinship units, from religious to secular ideologies (Tipps 1973: 204). However there was no agreement among modernization theorists about the course of these transitions. Some believed all should follow a path charted by Europe in the nineteenth century; others, like W. Arthur Lewis who served as Nkrumah’s advisor during the 1950s, emphasized the opportunities of liberation from colonial rule. These included not only liberation from capitalism but also the possibility of a modern world more just and open to all.³

Since the 1970s, modernization theory has attracted many critics. Dean Tipps rejected it on empirical grounds as too “vague, diffuse, descriptive and ultimately non-comparable” (1973: 223). Others challenged U.S. modernization theorists for offering the wrong kind of modernity. World system theorists criticized modernization theory because it focused attention on the core, i.e., Western decision-making institutions, while neglecting those on the periphery (Amin 1976). With regard to Africa, scholars deplored how the promises of modernization turned out to be a myth (Ferguson 1999). On the ground in many African countries since early independence, politicians, policy makers, and popular writers have expressed in vivid terms not only the expectations of modernity but also relied on the notion of modernization when outlining their goals and hopes for the emerging nation. Following

³ We are drawing here on Cooper 2005: 39-40; see also, Rostow 1960; Lewis 1954; Tignor 2006. Cf. the discussion in Cooper and Packer 1997.

Frederick Cooper (2005: 147), we are interested in how “the idea of modernization was *used* in a particular context,” and how the usage of this idea has changed over the last fifty years. We argue that Akosombo and Bui have served as a gauge of the relevance of modernization discourse in Ghana and as a reflection of the crucial players and ideologies. While the two dam projects represent two different moments in the history of development and modernization in Ghana, their popular representations, as well as related debates about dam affected communities and environmental concerns reveal striking similarities, despite vastly different historical contexts in terms of approaches to development (see Escobar 1995). The article shows that modernization and its related aspirations have not lost their luster in Ghana, but have maintained distinct meanings at different times. First, we locate the genesis of Akosombo and Bui within the longer history of the Volta River Project and link them to ideas of development.

The Volta River Project

The Volta River Project represents different understandings of development and modernization in the history of Ghana. In 1915, when traveling downstream by canoe, the geologist Albert Kitson had the idea of damming the Volta at Akosombo in order to produce hydro-electric power for processing the country’s bauxite into aluminum. Ten years later, Kitson (1925) published a survey on the Gold Coast’s mineral and water-power resources, which included the possibility for a second dam at Bui as a way to electrify a railway to the north. Kitson’s plan was picked up by the South African engineer Duncan Rose. The rising demand for aluminum during World War II created an interest in the project. For Kitson and Rose, development meant addressing the needs of the metropole. The country’s industrialization and domestic needs were only secondary. In 1952, a British white paper echoed this sentiment by rallying for the project with the call for the “need for a new Sterling Area Aluminum Smelter,” emphasizing the

project's benefits for empire and commonwealth.⁴

Yet in the 1950s, nationalist leaders shifted the rhetoric around the Volta River Project. Nkrumah, an early and enthusiastic supporter, described it in a Legislative Assembly debate as “a gigantic project for the industrial development of our country—a scheme which can change the face of our land and bring wealth and a higher standard of living to our people.”⁵ In 1956, a Preparatory Commission, established to explore the project's technical and economic feasibility, published a detailed report endorsing the scheme (Great Britain/Gold Coast 1956). Moreover, it laid out a detailed plan of how the implementation of the Volta River Project would create a fully integrated aluminum industry powered by a hydro-electric dam at Ajena, which later should be supplemented by a second dam at Bui. Damming the Volta meant sending the soon-to-be independent country onto the path towards modernity and British style democracy, as advocated by Western modernization theorists. Development now reflected the aspirations of the future with an explicit rejection of the past. Still, construction was far from certain, since world aluminum prices had fallen rapidly due to an oversupply. Following independence in 1957, Ghana's government looked for new financial backers. The Cold War came to the project's rescue. The U.S. government saw in the project an opportunity to assert its influence on sub-Saharan Africa. Since President Truman's inaugural address in 1949, programs of development, refined by social scientists within modernization theory, had become U.S. policy towards the new nations of Asia and Africa in response to the perceived Communist threat.⁶ In 1958, President Eisenhower and Prime Minister

⁴ Colonial Office 1952: 2. For the Volta project's beginning, see Moxon 1984: 49-59 and the early description of the dam sites at Akosombo and Bui by Kitson 1925: 44, 46-47. For the history of the development concept in Africa, see Cooper 1997.

⁵ Gold Coast Legislative Assembly, *Debates*, 18 April 1952, p. 1137, cited after Tignor 2006: 197.

⁶ For a discussion of Truman's speech, see Cullather 2002a: 513-15. For the connections between modernization, development, and the Cold War, see Cullather 2002b and Engerman et al. 2003.

Nkrumah agreed to explore U.S. funding. The following year, Kaiser Engineers of Oakland, California proposed in its Reassessment Report a more modest version of the project within a four-step process (Kaiser Engineers 1959).

As a first step, the Kaiser report suggested a slightly larger, earth-filled dam with a 512 MW power plant at Akosombo, a different location from the Preparatory Commission's design. Kaiser proposed a 120,000-ton per year aluminum smelter that merely refined imported bauxite at Tema, and a power transmission network of 550 miles to serve the commercial centers of southern Ghana. The report, however, deferred the production of alumina from Ghana's bauxite and thus suspended the original idea of creating a fully integrated aluminum industry. This compromise enabled the realization of the project but marked, as many critics have asserted, the "high water point" of neocolonialism (Shapiro 2002: 90). Ghana agreed to sell its electricity at a discounted rate to Kaiser Aluminum, the main owner of the Volta Aluminum Company (VALCO), which was to run the Tema smelter.⁷

Steps two and three were to bring the Akosombo power plant to full capacity of 768 MW, increase the smelter output by 100,000 tons per year, and build, as an innovation of Kaiser, a smaller dam at Kpong, with about 140 MW capacity, fifteen miles downstream from Akosombo. Step four, finally, foresaw the construction of an earth-filled dam of 190 MW capacity at Bui, together with additional transmission facilities at an estimated cost of \$75.9 million, to cope with future increases in electricity consumption. The Bui Dam, as the report projected, would secure power "at a lower cost than from existing or thermal power stations using imported oil fuel."⁸ The construction of Bui was estimated for 1970.

Despite embracing this scaled-down version suggested by Kaiser, the Ghanaian government continued to link the Akosombo

⁷ For a critique of Ghana's Master Agreement with VALCO, see Graham 1982: 181, 200-12 and Hart 1980. Kaiser Engineers and Kaiser Aluminum both belonged to Kaiser Industries.

⁸ Kaiser Engineers 1959, quote in section VII-9.

Dam with great hopes for the nation's development, phrased in the language of modernization.

Promises of Akosombo

In a speech to the National Assembly in 1961, when seeking approval of the Master Agreement between Ghana and VALCO, Nkrumah articulated the objective of creating an industrial sector that would balance Ghana's agricultural production (cocoa). "Newer nations," he declared, "which are determined by every possible means to catch up in industrial strength," must select a "large-scale industrial advance. Electricity is the basis for Industrialization. That, basically, is the justification for the Volta River Project."⁹ Nkrumah outlined the project's potentials for "rapid industrialization" due to ample electric power, such as a national grid that would connect the major towns and mines of southern Ghana, an aluminum industry, the promise of foreign exchange, and new transportation routes. The project should also create a large source of fish and enable the introduction of mechanized agriculture.¹⁰

These promises were disseminated in the government controlled press. The dam, closely identified with Nkrumah's person, was referred to as the "dearest dream of Osagyefo" (Nkrumah's honorary title).¹¹ Headlines such as "Volta River Project will benefit all" and "Akosombo reflects Ghana's glorious future," reminded the reading public about the expectations associated with the dam.¹² At the commissioning of the Akosombo Dam in January 1966, the *Evening News* linked Akosombo to the Aswan Dam. These dams were not only the "beginning of the electrification of the Continent," but an "inspiration to Africa."

⁹ "The Volta River Project," 21 February 1961, in Obeng 1979, vol. 2: 29.

¹⁰ *Ibid.*, 33-35. At a different occasion, Nkrumah promised that Akosombo would eventually provide the power for the electrification of Ghana's neglected northern region. See "The Volta River Project: To the National Assembly," 16 August 1962, Obeng 1979, vol. 5: 23.

¹¹ See the *Co-Operator*, 1, no. 20, February 1962.

¹² *Evening News*, 20 January 1961 and 15 January 1962.

Only with “African Unity” could Akosombo realize its potential.¹³ According to the press, these infrastructural accomplishments, which included the Tema harbor, roads, factories, and especially Akosombo, were not a mere copy of pathways to modernization adopted from elsewhere. Rather in Ghana, modernization should take on a specific African form, socialist in nature but still appropriate to the African context.

In addition to the press, the Volta River Authority (VRA) was at the forefront of disseminating the message about Akosombo, and thereby promoting Nkrumah’s ideas about modernization. In 1961, the National Assembly passed the Volta River Development Act that established the VRA as a public utility corporation with the task to “plan, execute and manage the Volta river development.”¹⁴ The VRA was in charge of the generation of electric power for industrial, commercial, and domestic use, as well as the operation of transmission lines. The VRA published pamphlets, produced scripts for radio broadcasting, and commissioned films about the progress and hopes of Akosombo.¹⁵ VRA officers gave numerous talks in schools across the country and received thousands of visitors at the dam site.¹⁶

Shaped by a group of modernist technocrats, the VRA became Ghana’s most successful parastatal. In the perception of ordinary Ghanaians, the VRA played a larger role. This modern institution gained the reputation of a well-run state company that cared for its employees and provided them with housing, transportation, education, and health care. The VRA is also closely connected with the legacy of relocating 80,000 people whose livelihoods in the Volta Basin were flooded due to the construction of the dam. The mod-

¹³ *Evening News*, 22 January 1966.

¹⁴ Volta River Development Act, 1961, (Act 46), Section 10 (1). Cf. Miescher’s interviews with E.A.K. Kalitsi, Accra, 25 June and 3 July 2008.

¹⁵ For example, Jopp 1965. For films, see “Filming of Volta River Project, 1961-1973,” VRA-Archive (VRA-A), SD-R/63; for radio broadcast, see A. B. Futa’s script sent to GBC-System, 24 January 1961, VRA-A, SD-R/61.

¹⁶ Cf. the speaking tour schedule of the public relation officer, S. N. Addo, July 1963, VRA-A, SD-R/61, and Miescher’s interviews with John Osei, Akosombo, 17-18 July 2006, 18 July 2008, and 27 July 2008.

ernization discourse that accompanied Akosombo embraced the prospect of resettling tens of thousands as an opportunity to transform supposedly backward communities. Resettlement became intrinsically linked with the promise of modernization as articulated through Akosombo.

Resettlement

Initially the advocates of the Volta River Project had little to say about the anticipated changes in the inundated areas. They considered the Volta Basin as mainly uninhabited, grossly underestimating the number of people to be resettled. A 1950 confidential report stated that “the submersion of the area of the reservoir would inundate very little of economic value.” Although it was estimated that about 18,000 people would be displaced and a few forest reserves affected, the report expected “little other disturbances of the normal life of the area north of the dam.”¹⁷ The Preparatory Commission addressed issues of resettlement, commissioned studies on downstream communities, and made recommendations for mitigation, which underestimated the full scale impacts. The commission suggested that people living in the Volta Basin should be compensated in cash so they could build new homes for themselves. The Kaiser report, in an attempt to cut costs, ignored the dam affected communities.¹⁸ In 1961, dam construction began before any steps toward resettlement had been taken. Under pressure due to a revised time table, the VRA took over the task of resettling about 70,000 people within a brief period of two and a half years. 10,000 people chose to resettle themselves.¹⁹

Promoting Akosombo, Nkrumah’s government sought to highlight the positive aspects of resettling 739 villages into 52

¹⁷ A “strictly confidential” circular about the proposed Volta River Scheme, 25 January 1951, Public Records and Archives Administration Department (PRAAD), Koforidua, ADM/KD 29/6/624.

¹⁸ Great Britain and Gold Coast 1956, vol. 1, 52, and Kaiser Engineers 1959.

¹⁹ E.A.K. Kalitsi 1970, Hart 1980: 76-88, and Miescher’s interview with Kalitsi, 25 June 2008.

townships. A VRA booklet noted that although “homes and lands would be destroyed, this very destruction could be turned to a good account if better living conditions and more efficient farming methods could be provided instead” (Jopp 1965: 9). According to the Seven-Year Development Plan, resettlement was treated as “an exercise in positive economic development on a regional basis designed to transform the areas and the lives of the people involved.” Government was to introduce new forms of farming and fishing, “both for the people who [were being] moved and the people already resident in the area of resettlement” (Ghana 1964: 210). Thus, resettlement became for decision makers an opportunity for development. Resettlement should serve Ghana’s anticipated transition from tradition to modernity.

The experience of resettlement was traumatic. Most people did not believe that their homes and farms would be flooded.²⁰ The arrival of the floods meant confusion and great loss. Adwoa Fosuaa recalled the evacuation from the cocoa town of Worobong in the Afram Plains: “The water displaced us in 1964, it was increasing rapidly in September.” On October 1, “a lorry” brought the people to the new town of Amate where the houses had not been completed; the cement was still wet.²¹ The VRA had only built one room for each household, in addition to a roofed foundation, where the occupants could add two other rooms. Many houses were never completed. The construction of a kitchen and bathing facilities had been omitted. The settlers had lost their fields and crops. The World Food Program assisted the refugees for a few years. “It was a sad story,” as Fosuaa exclaimed, “some people cried until their eyes turned red,” some men drowned their sorrows in alcohol, “day in and day out.”²² The Akosombo resettlement program failed to deliver the promises expressed by the planners. Changes in agriculture, such as the introduction of mechanized and

²⁰ Miescher’s interviews with Adwoa Fosuaa, New Oworobong, 26 July 2006, and with Salome Mirekua and Beatrice Nyarkoaa, New Oworobong, 27 July 2006, both with the assistance of Joseph Kwakye.

²¹ Adwoa Fosuaa, 3 September 2005.

²² *Ibid.*, for similar accounts, see Diaw and Schmidt-Kallert 1990.

cooperative farming did not yield the anticipated results of moving people from a subsistence to a cash crop economy. The new resettlement townships did not become centers of modernization that impacted the surrounding areas. On the contrary, about 40,000 of the original settlers, “or well over half of the initial numbers,” moved out within the first four years (Hart 1980: 80). Thus, resettlement did not become a marker of modernization but rather the most visible disappointment of Akosombo.

Dam affected communities living downstream experienced even more state neglect. The end of the Volta River’s annual floods transformed their local economies which were previously based on farming, fishing, clam picking, and some small-scale trade. The creation of the Volta Lake produced a larger amount of fish stock than anticipated by the Preparatory Commission (Hart 1980: 89). This led to a massive, male-centered out-migration from downstream communities, among them Tongu Ewe fishermen. Along the lake, they erected settlements that lacked basic infrastructure and services, since these communities fell outside of any state planning. Still, the livelihoods of lakeside settlements became superior to those of older communities in the Lower Volta. There, leaders increasingly demanded some form of compensation and government aid. Yet, only by the mid 1990s, did the VRA drop its long held belief that the benefits of the lake would make up for the economic loss of downstream communities. The VRA commissioned environmental impact studies to address the environmental and socioeconomic decline of the Lower Volta. Although these studies showed that the predicted adaptation of livelihoods among downstream communities had not occurred, the VRA refused to admit any direct responsibility. Akosombo, and its promise of modernization, turned out to be a mixed blessing for the communities of the Lower Volta.²³

²³ Tsikata (2006: 393-95, 400) discusses the environmental impact studies produced by the Volta Basin Research Project.

Bui Dam Project

In his eagerness to transform Ghana through modernization and industrialization, based on the construction of large dams, Nkrumah was not only committed to Akosombo. Already in 1958, he confided to his economic advisor W. Arthur Lewis: “My mind is finally made up ... I am determined to see that the dams at Bui and Ajena [Akosombo] are built in the shortest possible time [at all costs].”²⁴ Lewis, however, did not share Nkrumah’s enthusiasm for large dams as a panacea for economic development. By the end of 1958 he had left Ghana. In a final note, laying out his conditions for staying, Lewis urged Nkrumah to limit the country’s spending on the Volta River Project to twenty-five million sterling, as “the benefits that the dam [would] bring [were] not great enough to justify such a sacrifice.” Nkrumah thanked Lewis for his “sound” economic advice, yet reminded him of the reasons he could not comply: “I have told you, on many occasions, that I cannot always follow this advice as I am a politician and must gamble on the future.”²⁵

While Nkrumah was in the middle of securing the financing for Akosombo through a deal with Kaiser Industries, with crucial support from the U.S. government, he kept pursuing Bui. In 1960, seeking to balance Ghana’s relationship with East and West, Nkrumah entered an agreement for technical cooperation with the Soviet Union. The following year, a contract was concluded with Technopromexport of Moscow “to conduct a comprehensive” reassessment of the engineering for Bui and provide the basis for its implementation.²⁶ West of the dam site, Technopromexport built for its staff a settlement, which was to become the core of a

²⁴ Nkrumah to Lewis, 31 October 1958, Lewis Papers, Box, 9, Mudd Library, Princeton University, cited by Tignor 2006: 200.

²⁵ Lewis to Nkrumah, 8 December 1958, and Nkrumah to Lewis, 19 December 1958, PRAAD, Accra, SC/BAA/83 (RG 17/1/302). For a fuller discussion for Lewis’s fall-out with Nkrumah, see Tignor 2006: 172-78.

²⁶ Memo by Minister of Fuel and Power on Bui Hydro-Electric Project, detailing its history, n.d., VRA-A, SD-R/454a. In his parliament speech about Akosombo, Nkrumah mentioned Bui (Obeng 1997, vol. 2: 31).

future town. In early 1965, when the Soviets had completed their engineering survey, the VRA was invited to comment. Technopromexport suggested a rock-fill dam that would create a reservoir of 160 square miles and power four 260 MW generators. A one hundred and forty mile transmission line to Kumasi would connect Bui power to the Volta grid. The estimated construction period was four and a half years with costs of over forty-seven million pound sterling, a 100 percent increase of the cost projected by Kaiser.²⁷

Although the VRA recognized the project's "technical feasibility," it raised questions about its economics and timing. Chief Executive F. J. Dobson called Bui "a high cost power site," since the "magnitude of the dam required to fill the gorge and side valleys [would be] out of proportion to the amount of power available."²⁸ The VRA forecasted that Akosombo after its expansion to six units could provide Ghana's electricity at least until 1975/76. Should a supplement be required, other sites might be more economical and reliable, especially Kpong "because of the regulated flow from Akosombo."²⁹ In a carefully worded memo, the minister of fuel and power submitted these concerns to the cabinet, urging it not to fund Bui.³⁰

In spite of such reservations, the cabinet decided in August 1965 that there could be "no question of abandoning or postponing the implementation of the Bui Hydro-Electric Project." Rather it was agreed that "an immediate start" should be made for the construction of preparatory works and that "the development of the project as a whole should be phased [in] over a reasonable

²⁷ J. D. Corbine, Principal Secretary of Fuel and Power, to Chief Executive, VRA, 2 February 1965, VRA-A, SD-R/454a, and USSR State Committee on Power and Engineering and Electrification, *Bui Hydroelectric Station on the Black Volta River, Republic of Ghana*, 12 vols. (Moscow, 1964).

²⁸ Dobson to Principal Secretary, Ministry of Fuel and Power, 3 March 1965, VRA-A, SD-R/454a.

²⁹ Minutes of a meeting on the Bui Hydro-Electric Project Report, 21 June 1965, VRA-A, SD-R/454a.

³⁰ Memo by Minister of Fuel and Power on Bui Hydro-Electric Project, n.d.

period.”³¹ This decision completely ignored the financial situation and power needs of the country. Dobson reminded the cabinet secretary that Ghana’s agreement with the World Bank did not permit the government to undertake the financing of “an additional major power project.” The coup of February 1966 brought an immediate end to any work at Bui.³²

During the 1970s, policy makers made several attempts to reactivate Bui. In 1972, the Regional Commissioner of Brong Ahafo announced the government’s intention to reconsider the project. The previous year, Kaiser Engineers, which had conducted a study of Ghana’s power supply, recommended the Kpong Dam as the country’s next power plant. Kaiser Engineers were not neutral experts, since another part of Kaiser Industries, Kaiser Aluminum, controlled 90 percent of VALCO.³³ Contributing to the debate, the Brong Ahafo Regional Development Commission strongly argued for Bui. Evoking the language of modernization, the Commission suggested that a Bui Dam would provide the power “for opening up industrialization and electrification of interior rural Ghana.” Aware of Kaiser’s influence, the Brong Ahafo Commission suspected VALCO of lobbying for Kpong to shore up its power supply.³⁴

VRA chief executive E. L. Quartey refuted these arguments in support of Bui. Instead, he emphasized that a “shortage of energy” had never been “a bottleneck for development.” The country faced the problem of financing and generating “industrial establishments.” Since Akosombo was producing a power surplus, the VRA had begun selling electricity to Togo and Benin in 1972. Quartey reminded the military government why Bui had not been built:

³¹ Extracts of the Minutes of a Cabinet Meeting, 3 August 1965, VRA-A, SD-R/454a.

³² Dobson to Secretary of the Cabinet, 12 August 1965, VRA-A, SD-R/454a; see Moxon 1984: 245.

³³ Information Service Department to Principal Secretary, Ministry of Works and Housing, 22 August 1972, cf. *Daily Graphic* (hereafter *DG*), 27 July 1972, and Kaiser Engineers 1971.

³⁴ Brong Ahafo Regional Development Commission, “Bui or Kpong?,” May 1974, VRA-A, SD-R/454a.

there was “no market available,” neither in Brong-Ahafo, nor in Ashanti, nor in the Northern Region, to support its financing. Kpong was not only the cheaper option by feeding into an existing market but also offered a steady power supply of 112 MW due to the water regulation at Akosombo. If the objective were to provide electricity to the North, it would “be cheaper to supply these areas with Akosombo power rather than build Bui.” Quartey rejected the critique that Kpong would only serve VALCO. Rather, Kpong would “supplement Akosombo and [be] available to all users.” The VRA was not opposed to building Bui *after* Kpong.³⁵ Three years later, Colonel I. K. Acheampong launched the construction of the Kpong Dam. Acheampong promised to continue the “illustrious work” of the founding father.³⁶ He assured those who were going to be resettled that the government had learned from past mistakes. Acheampong presented himself as the one who would complete and improve Nkrumah’s policies and thereby fulfill the promise of modernization.

In 1976, the Australian government funded another feasibility study of Bui, executed by the Snowy Mountain Engineering Company (SMEC).³⁷ This led to long negotiations between SMEC and three Ghanaian governments. By 1981, President Hilla Limann had declared Bui a high priority and was eager to begin construction. Yet the World Bank withdrew its promise to organize the financing. The limited domestic load growth, the low regional power demand, and the need first to rehabilitate the national electricity corporation and its distribution network had undermined the reasons for building Bui. Finally, “mobilizing \$560 million in foreign exchange for Bui [would] likely constrain Ghana’s ability to attract external funding for other possibly higher priority investments in agriculture, mining, and transport.” Although the VRA chief executive sought to refute this assessment, the Bank

³⁵ Quartey to N.R.C. Secretary, 17 June 1974, VRA-A, SD-R/454a.

³⁶ *DG*, 1 December 1977, pp. 8/9.

³⁷ Australian High Commissioner, Accra, to Quartey, 9 February 1976, VRA-A, SD-R/454a. Cf. Snowy Mountain Engineering Corporation, “Bui Hydroelectric Project, Ghana,” 2 vols. (Cooma North, N.S.W. Australia, 1976).

would not change its verdict.³⁸

In 1982, the Kpong Dam, a \$260 million project, was commissioned by J. J. Rawlings, chairman of the Provisional National Defense Council (PNDC). As the country faced a severe economic downturn, this did not become a moment to evoke the lofty rhetoric of modernization. Rather, Rawlings admitted that the “the level of industrialization and development ha[d] not matched the original dreams of the planners of the Akosombo project.” Rawlings did not mention Bui. Instead, he floated the idea of “mini-hydro schemes on many of the nation’s rivers” and promised to implement rural electrification as 70 percent of the population remained “without the benefits of electricity.”³⁹ Although Kpong never became a national landmark and a symbol of modernization, the dam made up for some of the losses at Akosombo due to progressively falling lake levels. This allowed the continuation of power exports to Togo and Benin and enabled the launch of the long promised national electrification program. The following year, the country faced a serious energy crisis because of the absence of rainfall, which led to a reassessment of Akosombo as an iconic marker of the country’s modernity.

Energy Crises

Since the early 1980s, Ghana has experienced a series of energy crises due to poor rainfall in the catchment areas of the Volta Basin. This resulted in low water levels and thus a reduction of power production at Akosombo. Shortages of electricity challenged the certainty of Akosombo as a secure power supply. The planners of the Volta River Project had not foreseen such a situation. They were more concerned with floods as experienced

³⁸ Bilsel Alisbah, World Bank, to L. Casely-Hayford, 29 May 1981, and Casely-Hayford to World Bank, 8 July 1981, VRA-A, SD-R/454g. See also Miescher’s interview with E.A.K. Kalitsi and Louis Casely-Hayford, Accra, 8 July 2008.

³⁹ Rawlings’s speech at the Inauguration of the Kpong Hydro-Electric Project, Akuse, 1 July 1982, VRA-A, MSD/613. For Kpong, see Moxon 1984: 258-62; Tsikata 2006: 141-42.

during the dam's construction.⁴⁰ There is no outflow from the lake below 235 feet, the intake of the lower two turbines. Instead, the dam was equipped with twelve flood gates.

1983 was a difficult year, with the country facing a series of major challenges. In January, Nigeria expelled all undocumented aliens, causing an exodus of about one million Ghanaians who returned to their hometowns. In response to the severe economic decline, the PNDC government, as part of its Economic Recovery Plan, devalued the cedi and accepted the controversial structural adjustment programs as stipulated by the International Monetary Fund for new loans. The harsh drought caused bushfires that imperiled rainforest areas and destroyed cocoa farms.⁴¹

Power cuts introduced in December added to this grim situation. A number of "essential" services—hospitals, water stations, prisons, newspapers, and some government offices—were exempted.⁴² By February 1984, the national crisis had further deteriorated. The *People's Daily Graphic* began printing on its front page the Akosombo water level, together with the daily slogan by Rawlings and other heroes of the revolution. The situation at Akosombo became the gauge to measure the nation's health. Some journalists wondered why the VRA had failed to anticipate the crisis. In an assessment, T. W. Krakue noted that in 1973 during the global oil crisis, many had praised Nkrumah for building Akosombo. But now, Ghana had to learn that "hydro-electric power also [had] its limitations."⁴³ The water level kept dropping until June, when it reached the all time low of 235.87 feet. Then, gradually, the Volta Lake began rising again. In October, the scheduled power cuts ended.

⁴⁰ In September 1963, the Volta rose to the highest level measured since 1917 and whole villages flooded upstream from the dam site, as well as down stream, see Moxon 1984: 137-38.

⁴¹ See Herbst 1994; Anyemedu 1993; Brydon 1985.

⁴² *People's Daily Graphic* (hereafter *PDG*), 28 November 1983. The list of exemption was reviewed in order to reach the targeted reduction in power consumption, see *PDG*, 10 January 1984, p. 1, 4/5.

⁴³ *PDG*, 14 April 1984, p. 3; see also *PDG*, 20 February 1984, p. 1 and 21 March 1984, p. 2.

The crisis of 1983/84 had many consequences. Since coming to power, the PNDC government, with the support of a popular movement, demanded a renegotiation of the Master Agreement with VALCO. During the crisis, VALCO was forced to completely shut down its operation. The scarcity of electricity put the Ghanaian team in a strong position in its negotiations with VALCO, as the team's leader, Akilagpa Sawyerr, recalled. It forced VALCO to pay a rate closer to market value, which was a big victory for Ghana.⁴⁴ Further, the crisis triggered an intense discussion about how to prevent such power outages in the future. Eventually, the PNDC and the VRA decided against reactivating the Bui project. Instead, they opted for a thermal plant at Aboadze, outside Takoradi. Finally, Akosombo's status as a symbol of the country's hopes for modernization was seriously compromised.

Thirteen years later, Ghana faced another energy crisis. As a result of low rainfall in 1997, the water level dropped at Akosombo and the country had to endure more power cuts. This time, the reporting about the crisis took place in a radically transformed public sphere. In addition to the government-owned *Daily Graphic* and *Ghanaian Times*, a new private press had emerged as a result of the liberalization and democratic consolidation since Ghana's return to constitutional rule in 1992.⁴⁵ This journalistic landscape created an extensive discussion concerning the meaning and causes of the energy crisis. The private press used the crisis to critique the government's record, particularly its energy policies. An analysis of this journalistic archive shows how the press provided the platform for competing, as well as alternative narratives of modernization, in response to the energy crisis.

Evoking the dire situation of 1984, the *Graphic* noted that the economic situation had improved due to the Economic Recovery Plan, launched in 1983. The newspaper opined that the power cuts

⁴⁴ For the negotiations with VALCO, see the reporting in *PDG*, 11 July 1984, 16 July 1984, and 20 July 1984; the subsequent studies in F. Tsikata 1986; and Miescher's interview with Akilagpa Sawyerr, Accra, 7 August 2008.

⁴⁵ For an analysis of this hotly contested public sphere, integrated within an ethnography of the state and the private press, see Hasty 2005.

would send the wrong signal to foreign investors.⁴⁶ The VRA and the Electricity Company of Ghana (ECG) called on consumers to reduce voluntarily their electricity consumption by 30 percent to prevent another rationing of power.⁴⁷ In January 1998, two turbines of the new thermal plant at Aboadze began production, each with an output of 110 MW.⁴⁸ The following month, there was much finger pointing as the frequent power outages got worse. *The Statesman*, the voice of the opposition New Patriotic Party (NPP), accused the VRA and ECG of being “incompetent in handling the hydra-headed monster called Akosombo, the Thermal Plant, and La Côte d’Ivoire,” from where Ghana hoped to make up power supply shortages through imports.⁴⁹

Others critics pointed to the government’s failure to build additional power plants, especially the scrapped plans for the Bui Dam.⁵⁰ A *Free Press* editorial provided a doomed assessment of the situation. For two months, the nation had been faced with a “disastrous energy crisis with no resolution in sight.” There loomed the concrete danger that “the whole nation” might plunge “into darkness.” The editorial suggested building another dam, since the costs of running a thermal plant were prohibitive. If Bui were not feasible, as Burkina Faso was said “to have blocked the source of the Volta River at Bobo Dioulasso,” then the construction of other dams should be explored.⁵¹ In two articles, Adu Boahen, the historian and former NPP presidential candidate, criticized the (P)NDC government for inactivity after the 1983 power crisis. Unlike Burkina Faso and Côte d’Ivoire, which had both diversified their power supply, Ghana failed to do so. Côte d’Ivoire, once a recipient of Akosombo power, was now even selling its surplus to Ghana, Togo, and Benin. Adu Boahen reminded his readers that past governments under Nkrumah, K. A.

⁴⁶ *DG*, 1 January 1998, p. 14.

⁴⁷ *DG*, 19 January 1998, p. 1.

⁴⁸ *DG* 17 January 1998, p. 24.

⁴⁹ *The Statesman*, 3-8 February 1998, p. 5.

⁵⁰ *The Independent*, 24 February 1998, p. 3.

⁵¹ *Free Press*, 27 February – 4 March 1998, p. 6.

Busia, and Limann, had sought to build Bui. Even the despised military regime of Acheampong had added the Kpong Dam to Ghana's power supply. But all these plans "were sabotaged" by Rawlings's second coup in December 1981. Adu Boahen critiqued two government policies introduced since the last energy crisis: rural electrification for "obvious populist and political gains," and attracting foreign investors into mining and manufacturing instead of guiding them towards the energy sector. These policies led to a "steady escalation of the demand of electricity rather than the expansion of the sources of power supply." Rawlings should have realized that appealing to investors without adequate power resources was like "putting the cart before the horse, or learning to run before he can walk."⁵² The questions remained who should be the beneficiary of the modernization promised by the access to electricity—only residents of urban areas, or the country at large, which still required expansive rural electrification? And, how could Ghana produce sufficient power at an affordable rate?

Eventually, these public calls to reactivate the Bui project had consequences. By October 1998, when the water level at Akosombo was rising, the *Graphic* reported that the new VRA chief executive, G. O. Dokyi, announced plans for preparatory studies "for the final designs and development" of Bui.⁵³ In November, then Vice-President Atta Mills formed a committee to coordinate investors' proposals. There was speculation that construction might begin the following year.⁵⁴ The government no longer wanted to be accused of neglecting Bui.

Ecological and Social Implications

Initially, there was little evocation of the lofty language of modernization in relation to Bui. Rather, the project was to shore-up the country's power supply. While the government sought to implement Bui, the press debate shifted. For the first time in the history

⁵² *Ghanaian Chronicle*, 22-24 May 1998, p. 5, and 25-26 May 1998, p. 10.

⁵³ *DG*, 2 October 1998, p. 1.

⁵⁴ *DG*, 6 November 1998, p. 3.

of large dams in Ghana, ecological concerns and, to a lesser degree, dam affected communities became the focus of public discussion. In the pages of *The Independent*, Mike Anane launched a campaign to stop Bui. He called attention to the fact that north of Bui gorge the Black Volta meanders through the “magnificent Bui National Park,” a protected savannah with pristine river forests, “spectacular landscapes,” and a “diversity of species.” The project would submerge a significant part of the 1,800 square kilometer Bui Park. Particularly, the country’s largest hippopotamus population (*Hippopotamus amphibius*) would face extinction. Anane raised concern about the planned relocation of 2,500 people and serious health hazards such as bilharzia (schistosomiasis). The government was “woefully unprepared” to deal with these risks, as the case of Akosombo had shown.⁵⁵ At a time when other countries were decommissioning large dams and the region was facing periodic droughts with “barely enough water to turn turbines,” environmentalists were left searching for the logic behind Bui.⁵⁶ Ghana should instead explore alternative energy sources including solar and wind. Anane called on Ghanaians to rally against Bui and to prevent what promised to become “an ecological disaster and a veritable textbook example of wasted taxpayers’ money.”⁵⁷

Anane’s intervention triggered several responses. N. K. Ankudey, the head of the Wildlife Division, dismissed most of the concerns. Ankudey noted that Bui National Park was established in 1971, when the project was already on the drawing board. Under the current design, about 20 percent of the park would be lost. There was no need to relocate the hippos, since they would “simply move to the edge of a now enlarged lake environment with better feeding ground.” Bilharzia would not be a problem due to the restricted lake access. Ankudey, however, remained silent about the fate of the dam affected communities.⁵⁸ Columnist Yaa Asantewaa countered Anane’s “over-sensational article.” In her

⁵⁵ *The Independent*, 22 April 1999, p. 8.

⁵⁶ *The Independent*, 20 April 1999, back page.

⁵⁷ *The Independent*, 22 April 1999, p. 8.

⁵⁸ *The Independent*, 4 May 1999, p. 4.

view, Bui Park would have a more varied habitat due to the lake. Moving the debate back to the rhetoric of modernization, she noted the project's potential of "creat[ing] jobs, provid[ing] the villages ... near the dam site with modern settlements and amenities, and help[ing] to diversify Ghana's energy resources, all at no cost to the ordinary tax payer."⁵⁹ In a rejoinder, Anane refuted Ankudey's reasoning and accused him of failing to challenge those in power who needed his approval for realizing Bui. As the chief wildlife officer, Ankudey neglected his professional responsibility.⁶⁰ Subsequently, Ankudey expressed his "personal and professional" conviction that the project would be "in the long term interest of the nation" and would "ensure better protection and management" of Bui Park.⁶¹

Still, the environmental debate was not settled. Two years later, Anane reported about the revocation of the research permit of Daniel Bennett, University of Aberdeen, Scotland. Bennett's case has become a *cause célèbre* among the opponents of Bui. Since 1994, Bennett had been conducting research on the ecology of Bui under the auspices of the Wildlife Division. After he had created an Internet site describing the dam's ecological impact on the hippo population, Ankudey terminated Bennett's research permit and denied him access to Bui Park. Upon appeal, the Kufuor government upheld the decision.⁶² There is a certain irony that the Wildlife Division banned a foreign scholar whose results promised to benefit its mission. Yet the proponents of Bui Dam were no longer tolerant of dissent and decided to set an example.

Anane also cited the findings of the World Commission on Dams. According to its report, large dams had aggravated "social inequities" and contributed to "environment destruction, leaving

⁵⁹ *The Ghanaian Democrat*, 10-16 May 1999, pp. 3, 5. For another supportive voice, see *DG*, 16 July 1999, p. 7.

⁶⁰ *The Independent*, 27 May 1999, p. 8, and 25 May 1999, p. 11.

⁶¹ *DG*, 30 June 1999, p. 7. A similar argument that Bui would improve the protection of Bui Park was made in the *Ghanaian Chronicle*, 25-26 October 1999.

⁶² *Independent*, 27 March 2001, pp. 1/back page, and 29 March 2001, p. 3. Cf. Bennett et al. 2000.

the rich better off and the poor more marginalized and resentful.” Moreover, most resettlement programs had focused “on physical relocation rather than economic and social development of the displaced,” thus failing to realize the promises of modernization. Gender gaps seemed to have widened among dam affected communities; women not only bore a “disproportionate share of the social costs” but often faced “discrimination in sharing the benefits.”⁶³ Anane pointed out that Volta Lake contributed to the emission of greenhouse gases due to its rotten vegetation. For him, the Bennet case was an indication that the new NPP government had joined its predecessor in endorsing the Bui project. The following month, Ankudey published his correspondence with Bennett. He confirmed that the website calling for the hippos’ protection had caused him to withdraw the research permit. Instead of waiting for the results of the Environmental Impact Assessment studies, Bennett had “sought solace” in Anane. The “sensitive” environmental issues around Bui, Ankudey argued, had to be studied by professionals who were “fully open-minded, ethical, meticulous, and truthful in their operations and utterances.” Bennett “did not meet those [criteria].”⁶⁴

In spite of Anane’s activism, not all the reporting on Bui was negative. One assessment echoed the promotional discourse on Akosombo of the 1960s. Benzet Yao Ivor referred to the project as “a desired national dream,” because it was “capable of meeting crucial national needs in terms of power generation, infusions of capital investment, infrastructural opening-up of the hinterland and radical modernization and safeguarding of Bui National Park.” Bui Dam would “drive development of tourism, fishery, and agriculture in the Brong Ahafo Region to the eventual benefit of the entire nation.” Proponents of Bui adopted the strategy to realize the project by claiming that the anticipated modernization would “benefit both man and nature.”⁶⁵

⁶³ *The Independent*, 29 March 2001, p. 3. Tsikata’s study (2006) supports the findings of the World Commission of Dams (2000).

⁶⁴ *The Independent*, 30 April 2001, p. 2.

⁶⁵ *DG*, 27 November 2001.

Building Bui Dam

In November 2005, the NPP government signed a memorandum of understanding with the China Water Resources and Hydropower Construction Group (Sinohydro) and Chinese financiers to build the Bui Dam. While both Akosombo and Kpong were constructed by an Italian company with North American engineering, Bui reflects China's new influence in Ghana. Advocating Bui, the government evoked the promises once associated with Akosombo. The discourse on modernization that has accompanied the Bui Dam was in evidence at the sod cutting ceremony in August 2007. Energy Minister Joseph Adda announced that the 622 million dollar project would generate 400 MW of electricity to address shortages across Ghana, improve the security of electricity supplies to Northern Ghana and enable the country to supply electricity to Burkina and Côte d'Ivoire within the framework of the West Africa Power Pool (WAPP). Economic activities in the Bui area would receive a major boost with construction activities creating employment for 3,400 skilled, semi-skilled, and unskilled workers.⁶⁶ There would be subcontracting work and supplies of materials in road building, the construction camp, and other construction. The dam would allow for irrigation of about 30,000 hectares, thus modernizing agriculture in its catchment areas. There would be improved fisheries and eco-tourism, as well.⁶⁷

In its effort to promote Bui, the government erected large billboards along the road from Accra leading to the dam site. The most prominent billboard depicted Bui City as a modern settlement with high rise buildings, tree-lined streets, and public fountains situated against a background of the massive Bui Hydro-Electric Dam featuring open flood gates and three penstocks feeding the turbines. A pensive but proud President Kufuor claims ownership of the project by filling the left side of the image. The billboard

⁶⁶ *Ghanaian Chronicle*, 27 August 2007. A total of 500 Chinese would be employed. The local workforce would consist of one hundred technicians (twenty in administration and eighty as foremen), 700 skilled laborers, 1,000 semi-skilled and 1,000 unskilled workers.

⁶⁷ *Ghanaian Chronicle*, 27 August 2007.

also refers to the anticipated “Bui Agro/Tourism Business” (Fig. 1). The energy minister elaborated on the promise to build Bui City by telling a gathering of affected communities that the city would feature institutions such as a hospital, university, banks, and factories among others and therefore create jobs and services.⁶⁸ Certainly, the planned city with 500,000 inhabitants would be larger than any of its kind in the surrounding districts and second only to Tamale, the capital of the Northern Region. As is well known, some of the modernization promises of Akosombo, including industrialization and irrigation, did not come to pass (Hart 1980). In this case, the chances of realizing Bui City in the image of the billboard are even more uncertain as it is not clear who will pay for this urban center. The government had built the Akosombo Township to house the workers and engineers prior to beginning construction on the dam itself. Bui City does not have this kind of integral link with Bui Dam.

There is also a qualitative difference in the modernization paradigm which accompanied the two dams. While Akosombo was being constructed in a period of state led development of the 1950s and 1960s, Bui is being constructed in a situation of private sector-led strategies. Thus in the case of Akosombo, rural people were to be ushered into the modern world through irrigation agriculture under the guidance of the Volta resettlement project. In the case of Bui, local people and their chiefs are being entreated to position themselves in order to exploit the opportunities of the project. Energy Minister Owusu Adjapong, during a visit to the area, noted that communities close to “such significant projects,” who were expected to be the “immediate beneficiaries,” often could not take advantage of such opportunities because of their lack of skills and knowledge. He asked them to invest heavily in their children’s education, especially their girls, and ensure that the youth would learn trades or upgrade their skills so they could “fit into the system to avoid any future regrets.”⁶⁹ This appeal to the agency of

⁶⁸ *Ghanaian Chronicle*, 12 August 2008.

⁶⁹ *Ibid.*

rural populations is a significant departure from past discourses of modernization although the primary instruments for modernization have remained education and formal employment across the different periods.



Figure 1: Billboard advertising the inauguration of the Bui Dam Project, Kumasi-Sunyani Road, May 2008 (Photo: R. Lane Clark)

The chiefs of the areas to be affected by the dam raised the issue of their participation in decision making around the project and called for better information flow so they could respond to recurring questions raised by their people. They addressed compensation for land and loss of properties, potable water, extension of electricity, and tarring of roads.⁷⁰ In 2008, Mahama Zakaria reported for *Public Agenda* that the chief of Jama, Nana Kwadjo Pambo, had demanded a seat on the board of the Bui Power Authority to improve the communication between the board,

⁷⁰ Ibid.

chiefs, and the people.⁷¹ This demand had a precedent in recent VRA practice where chiefs of affected communities had been granted informal representation on the VRA board. While this had not resulted in a marked difference in VRA policies on dam affected communities, that this demand is being expressed early in the life of Bui and the fact that chiefs have raised the issue of compensation and needs of affected communities could force a qualitative change in responses to dam affected communities. The Bole Wura, Amankwa Gbeadese II, cautioned the government to make sure that people would receive what was due to them, “since they would not sit by for their land to be used freely.” He cited the Mole National Park as an example, where government had appropriated land and made a lot of money with “very little benefit” for the people. The Bole Wura hoped that Bui Dam would not become “the same old story.”⁷² Yet it is uncertain whether the strength of such demands, the more developed consciousness of chiefs and their people, and the context of increasing land values and markets will result in a fundamental change in the treatment of dam affected communities.

As happened with the Akosombo and Kpong Dams, the government has begun resettling communities. In July 2008, Emmanuel Adjei reported that the “final batch of three communities” had been resettled. The government relocated 180 people from Brewohodi, Abegikuro and the dam site into fifty houses at Jama, Northern Region. Each household was entitled to two bedrooms with an attached bathroom and kitchen. Also, a communal KVIP (toilet) and water borehole, community center and nursery school were provided. As in the case of the older dams, government officials evoked the familiar modernization discourse by referring to resettlement as “vast improvement” in living conditions. Each person received one hundred Ghana cedis, which was 20 percent of the promised compensation. According to environmental officer Salifu Wumbilla, each household would be

⁷¹ *Public Agenda*, 4 April 2008.

⁷² *Ibid.*

allocated two acres of land and assistance to clear it. Two resettlers, Akosua Nketia of Brewohodi and the fisherman Kofi Goku, expressed their satisfaction about the government's assistance and level of comfort provided.⁷³ Scholarly assessments of resettlements have critiqued the size of the land provided for farming, accessibility to critical services, and the challenges of re-establishing social life. The arrangements described above are similar with past resettlements. Thus it may be only a matter of time before communities begin to desert resettlement towns as it happened with Akosombo, where 60 percent left the towns a few years into resettlement.⁷⁴

Claire Sutcliffe, who conducted interviews with people to be affected by the Bui Dam in 2008, found disturbing similarities with Akosombo. People, whose land had been acquired, did not know when they would be resettled, when they could expect compensation, or where they could go to express their grievances. The recommendations made in the Environmental and Social Impact Assessment (ESIA), such as the need for improved health facilities, had not received much attention. The pledge that livelihood standards would be restored, and if possible improved, has remained empty rhetoric. Sutcliffe concluded that very few locals were going to be employed in skilled jobs as they were mostly illiterate.⁷⁵

Environmental issues remain prominent in this period of dam construction. According to the World Rainforest Movement, the dam would flood a quarter of Bui National Park and destroy the

⁷³ *Ghanaian Chronicle*, 16 July 2008. For earlier reports, see David Butcher and Laszlo Huszar, "Bui Resettlement Study," Faculty of Architecture, Kumasi University of Science and Technology, 1966, and SMEC, "Bui Hydroelectric Project, Feasibility Study: Environmental Report," Volta River Authority, 1976, chap. 4. The Bui Power Authority provides an overview of its resettlement program, http://www.buipowerauthority.com/resettle_main.htm, accessed 22 June 2010.

⁷⁴ See Hart 1980; Diaw/Schmidt-Kaller 1990; Shapiro 2002; Tsikata 2006.

⁷⁵ Claire Sutcliffe, "Interviews with People to be Affected by Bui Dam: A Field Report," January 2009, <http://www.internationalrivers.org/files/Bui%20Field%20Report.pdf>, accessed, 27 June 2009.

habitat of the black hippopotamus and affect species such as fish, butterflies, birds and primates, not to mention the resettlement of thousands of people.⁷⁶ At the sod-cutting ceremony, Energy Minister Adda engaged with some of these environmental issues. He announced that the project would tackle the impacts identified by the ESIA and acknowledged the need to equip the Game and Wildlife Department “for effective monitoring and management” of Bui Park to protect displaced animals from being hunted by the local population. The minister mentioned plans to expand the Bui Park to compensate for flooded land and to grow certain plant species in order to increase the fodder available to the hippos.⁷⁷ The advocacy group International Rivers has raised weighty concerns about green house gas emissions and climate change. Although the International Water Management Institute and the Ghana Dams Dialogue have proposed further assessments of the project’s impact on climate change, construction is moving ahead swiftly.⁷⁸ While certainly alarming, these concerns would have more resonance in Ghana if they showed a direct link between ecological changes and livelihoods of the dam affected communities and those beyond.

The Politics and Finances of Bui

In 2007, breaking with previous plans to have the VRA oversee the

⁷⁶ Richard High, “Environmental Concerns as Ghana’s Bui Dam Starts Construction,” *International Construction*, 4 December 2008, <http://www.khl.com/magazines/international-construction/detail/item29664/Environmental-concerns-as-Ghana's-Bui-Dam-starts-construction--/>, accessed, 27 June 2009.

⁷⁷ *Ghanaian Chronicle*, 27 August 2007.

⁷⁸ International Rivers, <http://www.internationalrivers.org/en/africa/bui-dam-ghana>, accessed 27 June 2009; see Patrick McCully, “Ghana’s Reservoir would be a Major Greenhouse Gas Emitter,” 24 January 2008, <http://www.internationalrivers.org/en/node/2413>, accessed 27 June 2009; Wolfram Laube et al., “GLOWA Volta Policy Brief: Impact of Climate Change on the Black Volta Basin and the Bui Dam,” March 2008, <http://www.internationalrivers.org/files/GLOWA%20Volta%20Policy%20Brief%20Bui%20Dam%2017%2003%2008.pdf>, accessed 22 June 2010; Richard Twum, “Ghana Dams Dialogue: Focus on Affected People,” International Rivers, <http://www.internationalrivers.org/node/5500>, accessed, 22 June 2010.

Bui Dam, the Kufuor government established a separate Bui Power Authority (BPA), which was to develop, operate, and manage the project. Similar to the Volta Secretariat, the BPA was first to operate as a project secretariat and, upon completion of construction, to become a full corporate entity. Kufuor appointed himself chairman of the BPA board. In December 2008, when leading the ceremony to divert the flow of the Black Volta at the onset of construction, Kufuor declared the Bui Dam and Bui City as “one of the biggest legacies” of his eight year presidency.⁷⁹ Kwame Nkrumah had also chaired the VRA Board until his regime was overthrown. Subsequently, in 1971, Prime Minister Busia, an early critic of the Volta Project, amended the Volta River Development Act to allow others to chair the VRA.⁸⁰ When Kufuor proclaimed his commitment to Bui, he implicitly evoked Nkrumah’s affectionate relationship with Akosombo. Similar to Nkrumah, this commitment was draped in the language and imagery of modernization, as Kufuor’s portrait on the Bui Dam billboard testifies (Fig. 1).

The decision to establish a separate Bui Authority became another installment in the awkward relationship between the VRA and the political parties of the Danquah-Busia tradition, such as the Progress Party and the NPP. VRA officials have recalled their difficult relations with the Busia government, which subjected the organization to a commission of enquiry when it came to power in 1969.⁸¹ Under the NPP, in a reversal of decades of practice, an outsider to the VRA, Charles Wereko-Brobby, was appointed as chief executive. This resulted in labor conflicts that culminated in the VRA staff successfully demanding the removal of Wereko-Brobby, the divestiture of companies established by the VRA, and

⁷⁹ High, “Environmental Concerns.”

⁸⁰ See K. A. Busia’s speech at the inauguration of a newly constituted VRA, 2 October 1971, VRA, SD-R/60.

⁸¹ See “Interim and Final Reports of the Committee of Enquiry into the Affairs of the Volta River Authority,” (1971), PRAAD, Accra, RG 8/2/413, as well as Miescher’s interview with Kalitsi, 25 June 2008.

the retrenchment of some of its old top leadership.⁸² Given that Bui had been in the docket of the VRA which has been successful in building and managing the Akosombo and the Kpong Dams, the decision to establish a separate authority was significant. It meant that the VRA and Bui would have an arm's length relationship and therefore, Bui would be unlikely to benefit from the expertise and experience accumulated by the VRA. BPA's first chief executive was a banker, and not an engineer, which had been a tradition at the VRA.⁸³

The financial arrangements for the Bui Dam also mark a point of departure from Akosombo. The Ghana government provided 50 percent of Akosombo's financing in the amount of \$98 million, while the other 50 percent was secured through loans from the World Bank and the U.S. and U.K. governments. Bui, however, is being mainly financed by China. The arrangements consist of a hybrid credit facility, consisting of a concessionary loan of \$263.5 million from the Chinese government and a buyer's credit facility of \$298.5 million from the Export and Import Bank of China (EXIM Bank of China). The Ghana government is expected to contribute \$60 million, which is less than 10 percent of the dam's total cost of \$622 million, and thus plays a much reduced role in the construction of the country's third large dam.⁸⁴

Postscript: Modernization in Question?

At the time of writing, the Bui Dam project was in a state of flux. Before the 2008 elections which saw a narrow victory of the opposition National Democratic Congress (NDC), the Bui Dam was

⁸² In 2003, the press extensively debated Wereko-Brobby's tenure, see *Ghanaian Chronicle*, 7 April 2003, *DG*, 23 May 2003, *The Independent*, 10 June 2003, and *The Insight*, 9 October 2003. Cf. Miescher's interview with Marian Antwi, chairperson VRA Senior Staff Organization, Tema, 31 March 2008.

⁸³ In 1990, E.A.K. Kalitisi, an economist, who had been with the VRA from its Volta Secretariat days, became the first chief executive without an engineering background.

⁸⁴ For Akosombo's financing see Hart 1980:31; for Bui, see the BPA "Finance Plan," <http://www.buipowerauthority.com/financial.htm>, accessed 18 June 2010.

said to be on course with an expected completion date of 2012. As dam construction is proceeding, International Rivers has identified a number of problems that have emerged. They include poor labor conditions, lack of information to the affected population, and insufficient attention to climate change issues.

There have been labor disputes at the dam site. Ghanaian workers have complained of poor salaries, cramped quarters, as well as health and security concerns. In a radio interview, the project manager, Godfred Boateng, admonished workers “to exercise patience and to be prepared to sacrifice a little in the early stage of the dam construction.” He urged salary restraint and respect for the law. Yet Sinohydro, the Chinese contractor, was paying workers just above the minimum wage. BPA encouraged Sinohydro to increase wages in order to improve the workers’ morale. The project manager agreed that medical check-ups for workers “prior to engagement” would be “instituted immediately” to forestall the spread of disease in the fourteen to a room dormitory.⁸⁵ The report is telling in that wage levels and living arrangements are the responsibility of Sinohydro. The BPA can only advise. Similarly, in April 2010, Samuel Appiah reported that Ghanaian workers at Bui had complained of “poor wages and unfavorable working conditions” and threatened to strike or quit. Unlike their Chinese counterparts, they enjoyed “no resting days, no annual leave.” In response, the BPA chief executive merely pointed out that Ghanaian workers were employees of Sinohydro. It remains the contractor’s responsibility “to ensure the welfare of its workforce.”⁸⁶

The one positive situation was the expectation that women in

⁸⁵ Ghana Broadcasting Corporation, 18 July 2008, <http://www.international-rivers.org/en/node/3180>, accessed 27 June 2009. Cf. Miescher’s conversations with migrant workers, Bui Camp, 20 May 2008.

⁸⁶ Samuel Appiah, “Bui Dam Workers in Slavery,” [joyonline.com](http://news.myjoyonline.com/news/201004/45311.asp), 27 April 2010, <http://news.myjoyonline.com/news/201004/45311.asp>, accessed, 18 June 2010. An artisan was paid a daily wage of GH¢3.00, a laborer GH¢2.50. In 2009, the TUC and Sinohydro allegedly agreed on a wage increase to GH¢5 and GH¢4.50 respectively, which the latter has failed to implement.

the area could sell food to the workers employed at Bui. There is a long tradition of women moving to building and road construction sites across Ghana to sell cooked meals and foodstuffs to workers. So far, the Chinese workers have not patronized these local outlets and it is not clear what arrangements will be made to facilitate this expectation. This may be one of the ways in which the minister's call on locals to take advantage of the economic opportunities provided by dam construction could be realized. However, it would only allow for limited benefits.⁸⁷

Other developments include the replacement of BPA's chief executive with a former VRA official and the announcement that the two institutions would be merged. This move would require short-term adjustments and needs to be handled with the interests of local populations in mind. The current NDC government has a history of cordial relations with the VRA. It was under Rawlings, the NDC founder, that the VRA renegotiated its agreements with VALCO. In 2007, the Kufuor government purchased VALCO and made arrangements for subsidized power, until a public uproar about this policy during power shortages led to the suspension of its operation.⁸⁸ In this new dispensation, not just Bui, but also VALCO's fate is in limbo until the dust settles. The final outcome and shape of the Bui Dam Project remains open, although the VRA has a positive record of overseeing dam construction.

The situation for dam affected communities is even more uncertain. Because there are no binding agreements, they may have to renegotiate with the merged BPA entity and with the government. Here, the VRA's own record with dam affected communities fails to offer grounds for optimism. In 2009, the *Daily*

⁸⁷ Sutcliffe, "Interviews with People," and *Ghanaian Chronicle*, 27 August 2007.

⁸⁸ See the debate in the *DG*, especially the commentary by K. B. Asante, "Who Advised the Purchase of VALCO?" *DG*, 26 March 2007, p. 7, and the responses by Seth Adjei, "Come Again, K. B. Asante," and "Government Must Answer Questions on VALCO/VRA," by Yao Graham, *DG*, 4 April 2007, p. 7 and 14 April 2007, p. 7, respectively. For the 1980s VALCO negotiations, cf. Tsikata 1986.

Graphic reported that the chiefs and people of Adjena and Pesse, two farming communities near the Akosombo Dam, had vented their anger against the VRA for persistently refusing to pay adequate compensation to those whose lands and buildings were submerged during the construction of Akosombo. The chiefs complained about the failure of the VRA to provide them with basic services such as decent housing, school, clinic, potable water, and access roads to improve their standard of living. They charged that not a single one of their bright but needy children had benefited from scholarships enjoyed by the children of VRA officers since their resettlement over forty years ago.⁸⁹ As recently as April 2010, the people of Dodokyina challenged attempts to relocate them. They claimed that BPA officials had “falsified documents” to indicate that a majority of the community had agreed to be resettled. According to the chief, Nana Kojo Kumah Domaka, most people of Dodokyina were unwilling to leave their land, “their greatest economic asset.”⁹⁰ The World Commission on Dams (2000) recommended that no new dams should be constructed until all the problems with the old ones have been addressed. In Ghana, there has been a breach of this recommendation. What is sorely needed is an organization for tackling the economic, social, and environmental problems of dam affected communities. It may be more constructive to convert the BPA to this function, than to merge it with the VRA.

Despite this history of shortcomings in the treatment of dam affected communities in Ghana, it remains striking that the backers of the Bui Dam continue to fall back on the lofty rhetoric of modernization whenever they promote the dam, or when they try to convince those who will lose the most to support this infrastructural project. Unlike in the cases of Akosombo and Kpong, the contractor, Sinohydro, plays a more prominent role in the construction of the Bui Dam. Although this arrangement means

⁸⁹ *DG*, 1 July 2009.

⁹⁰ *The Ghanaian Journal*, 19 April 2010, <http://www.theghanaianjournal.com/2010/04/19/bui-dam-land-owners-charge-we-won%E2%80%99t-move/>, accessed, 18 June 2010.

that the government's role and oversight is seriously curtailed, the project is still being presented as a national endeavor with far-reaching development impact that should reach neglected regions and populations. Thus, ideas and aspirations of modernization in relation to large dams are very much alive in today's Ghana—even if they are evoked in a different historical context from the one half a century ago, when Nkrumah had advocated Akosombo as a route to achieve the promise of modernity.

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