
The Persistent Paradigm for ‘Modernizing’ River Basins: Institutions and Policies in Ethiopia

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Abstract

In view of the nearly unprecedented level of destruction of human life and natural resources from dam development, the question arises as to how such a policy could come into play without major questioning and challenge. The following is an effort to answer this question, by tracing the trajectory of the river basin development policy involving the Ethiopian state and international development forces—from its beginnings to the Gibe III dam. Citing alleged priorities of the ‘national interest,’ and programs for economic ‘growth and transformation,’ the Ethiopian government and international development banks, together with Kenyan government cooperation, have for decades actively pursued Omo basin hydrodam and dam enabled agricultural development. The nexus of institutions most central to the design, implementation and legitimation of major hydrodams and their associated river basin development is structured in such a way as to prioritize macro economic and political objectives with the externalization of the well-being—in the Ethiopia case, the very survival—of local residents who are among the most marginalized and vulnerable to destruction from this development.

Early River Basin Development in Ethiopia

- **Plans for the Gibe III dam and Omo River basin development emerged from decades of Ethiopian government efforts to develop its water resources along with major involvement on the part of international aid and investment institutions.** Focus on large dam and dam-enabled enterprises—especially hydroelectricity and large-scale irrigation agricultural projects—persisted throughout the post WW II period, with continuity of purpose and approach, from the years of Haile Selassie rule with major western nation support, through self-proclaimed ‘socialist’ authoritarian rule by the regime commonly referred to as the Derg, to the current centralized EPRDP-dominated government with its return to market-driven ‘modernization.’

As early as 1912, Emperor Menelik II constructed the first hydropower plant on the Akaki River—a tributary of the Awash River, in order to power the palace and a group of small factories in Addis Ababa (U.S. Government 1916). Following his accession to the throne of his uncle, Menelik, Haile Selassie continued the interest in developing Ethiopia’s water resources, including hydropower—development likely facilitated by his consolidation of power in the monarchy with the Constitution of 1933 (Habte Selassie 2013). He reportedly authorized a redevelopment of the Akaki River, in 1932, for example, where the Ethiopian air force, radio communications and other developments were established. His plans were interrupted, however, by Mussolini’s brutal invasion from Italian controlled Eritrea and Somaliland in 1936, with bombing of the Akaki and other areas (Nicolle 1997)—followed by the years of Italian occupation.

Having made the mistake of putting his trust in the 1928 Treaty of Friendship between his monarchy and Mussolini of Italy, despite both nations being members of the League of Nations, which mandated non-aggression among its members, Haile Selassie was exiled. After a failed plea for help from the League of Nations, the emperor began a five year residence in

England. With the beginning of World War II in 1930, the exiled monarch was catapulted onto the world stage and for many, almost instantly became a “prophet.” Habte Selassie wrote, in 2014, “For people in the African Diaspora, particularly in the United States and the Caribbean region, his name became a talisman for Africa’s liberation”. The Allied powers’ resounding counter to the Italians in Ethiopia and the rest of the Horn ultimately restored Haile Selassie to power via his passage to Sudan and the actions of liberation forces, bolstered by the British (Vestal 2011). Meanwhile, the monarch had established strong ties with the Americans—connections that were to lead to a major U.S. role in Ethiopia in the years to follow.

During their years of occupation, the Italians built some generators and extended the power supply to some major towns as one dimension of infrastructure and commercial development. Almost immediately after their occupation of Ethiopia, the Italians began building the Aba Samuel dam/power plant on the Akaki River, with a 40,000 m³ reservoir. Although initially relatively small (6 MW), the power plant was expanded (in the 1950s). The Italian dam thus initiated the harnessing of a tributary of the 1200 km Awash River, which was to become the centerpiece of hydropower development in Ethiopia during the early period of post-WW II modernization under Haile Selassie.¹

Reinstated to the throne in Ethiopia, Haile Selassie began negotiating with the allied powers for Ethiopia’s full sovereignty and became a signatory of the Peace Treaty concluding the war. The monarch then brought Ethiopia into membership at the United Nations in 1945—the first African head of state to do so. Despite his highly popular and revered image abroad, the emperor faced considerable unrest at home and needed major assistance to stabilize his position. This suited the allies and particularly the U.S., which Haile Selassie viewed as less threatening in imperialistic terms (Habte Selassie, op. cit.). For their part, U.S. foreign policy analysts regarded Ethiopia as an excellent *entre*’ point to the still largely colonial African continent. Moreover, Ethiopia was perfectly situated for U.S. geostrategic interests in the early years of the Cold War. Indeed, in subsequent years Ethiopia became a major recipient of U.S. military and economic assistance in Africa and fully embroiled in the regional strategies of Cold War superpowers. These factors combined to bring about major ‘modernization’ efforts in select regions of the empire and the beginning of a virtually permanent presence of western aid and investment institutions.

The World Bank—active for only a few years since its creation as a Bretton Woods institution—was already engaged in economic planning in many African countries. Ethiopia became its first African member (and client) state with an official Bank mission established and loans issued. From the beginning, the Bank’s key planning and coordination of the ‘modernizing’ effort within Ethiopia were done in concert with U.S. involvement. A U.S. Technical Mission, for example, carried out detailed study of Ethiopia’s potential economic development prior to the World Bank’s first mission to the country in 1950, contributing to the Bank’s issuance of its first loans to Ethiopia that very year.

The first World Bank loans to the monarchy were in fact the first loans by the Bank to Africa. Two loans issued in 1950, following the Bank’s first mission to the country, were for the establishment of an Ethiopian Development Bank. These were mostly to promote agricultural and industrial enterprises, and road construction, including ‘feeder roads’ to the Imperial Railroad from Addis Ababa to neighboring Djibouti, Ethiopia’s only shipping outlet at the time (World Bank 2013).² Built during Menelik’s rule by the French, the railroad traversed the broad, semi-arid Awash River basin in northeastern Ethiopia (Fig. 2.1) that was soon to be the focus of major water, power and irrigated agricultural investment and development. Additional funding in the 1950s included finance for telecommunications and road construction.

Following the 1960 establishment of the Bank’s soft loan window, the International Development Association (IDA), the Ethiopian monarchy received loans on a consistent basis and the World Bank continued its dominance in Ethiopian development policy.

Generally speaking, the World Bank’s early prominent role in economic planning and financing for the monarchy during the early post-war years—closely coordinated with U.S. assistance and Haile Selassie’s own enthusiasm for establishing Ethiopia as a ‘modern state’ in economic and political terms—effectively set the conditions for major river basin development in the empire.

¹The dam became non-functional in the early 1970s. Recently, the GOE (EEPCO) began plans to refurbish the Aba Samuel.

²Haile Selassie’s disregard for the U.N. mandate for a popular referendum in Eritrea to determine its possible autonomy or affiliation with Ethiopia, following its liberation from Italian occupation, led to his brutal actions to annex Eritrea—regarded as a critical shipping outlet at the Red Sea, a source of resource appropriation and of major interest to the Cold War focused U.S. for new military installations and surveillance of the Soviet Union.



Fig. 2.1 Awash River basin in context of all Ethiopian river basins. *Note* Omo River basin to the southwest. *Source* Ministry of Water Resources, Government of Ethiopia

Establishment of an administrative apparatus for river basin development began early in Ethiopia, with the 1956 formation of the nation's first agency to promote hydrodam development—the Ethiopian Electric Light and Power Authority (EELPA). EELPA was charged with responsibility for planning and implementing hydrodam and dam enabled, large-scale agricultural and other industrial development. This included overseeing the generation, distribution, and sale of electricity, with emphasis on commercial and industrial sales.

- Official relations between Ethiopia and the United States actually dated as far back as 1903. A U.S. mission headed by Robert P. Skinner was sent to Ethiopia in order to negotiate a commercial treaty with Emperor Menelik (Skinner 2003). The mission ended on a positive note with establishment of a personal relationship between Menelik and U.S. President Teddy Roosevelt.³ Ethiopia offered a unique opportunity for U.S. presence in Africa since it was not under colonial domination from Europe (Vestal op.cit.)

Relations between the two countries remained positive and in active during the early to middle 1930s and again in the 1940s. In 1935, more than half of Ethiopia was deeded to the Anglo-American oil corporation. According to news reports, the emperor's calculation was that this action would block a feared Italian invasion failed (St. Petersburg Times 1945). Following the defeat of the Italians and Haile Selassie's reinstatement in Ethiopia, the emperor firmed up a nothing short of colossal new oil arrangement with the American oil company, Sinclair, whereby Sinclair was granted a long term concession over the entire nation of 350,000 square miles, with the right to explore, produce and remove oil from the empire in return

³The 'good will' aspect of the U.S.-Ethiopia connection established was symbolized by Menelik's gift of some lions and ivory to Roosevelt. In a sense, this good will was sustained and once again emerged under U.S. President Franklin Roosevelt in the 1940s.

for royalties and certain specified development projects (*ibid.*). The upshot of this was that U.S.-Ethiopia political and economic relations were moving forward.

President Franklin D. Roosevelt offered support to Haile Selassie to resist domination by Britain following the emperor's reinstatement—a position welcomed by the monarch, who met the President in Egypt in 1945. At that meeting, Roosevelt invited Haile Selassie to the U.S. following the war and offered financial support for the monarch—followed by a loan and U.S. advisors as well as support for Ethiopia's "joining" with Eritrea (Habte Selassie 2014). Roosevelt died, events changed and the emperor wasn't able to visit the U.S. until 1954—but it was to be a visit that marked an important milestone in his commitment to large scale river basin development.

Somewhat enamored with U.S. technical levels of development, particularly in agriculture, Haile Selassie invited a leading university in agriculture, Oklahoma State University (OSU), to come to Ethiopia and consider agricultural assistance there. According to an OSU participant in and chronicler of, relations between the two parties, the cooperation emerging from this interaction became an early component of President Harry Truman's Point Four technical assistance program. A subsequent 1952 agricultural team from Oklahoma eventually led to the establishment of an agricultural college, Imperial Ethiopian College of Agriculture and Mechanical Arts at Alemaya, near eastern Ethiopia's Harar town (Vestal 2011). Thus the birth of 'modern' agriculture in Ethiopia—arguably including large-scale irrigated agriculture—an endeavor poised to be applied to development in the region's Awash River basin.

The monarch was finally able to visit the U.S. during President Eisenhower's administration, when he had become an esteemed figure in international and African politics (Vestel 2011, Habte Selassie op. cit.), as well as admired by many in the U.S. The predecessor to USAID had provided only relatively small funding to Ethiopia prior to that visit. Haile Selassie's Washington D.C. tour was complemented by a six state tour of the U.S. that included a visit to the Grand Coulee dam, an oil refinery in southern California, and a 'circling of the Hoover Dam. The visit also included a momentous visit to Oklahoma State University.

- **The Awash River basin provided an ideal starting point for combined dam and large-scale irrigated agriculture construction within Ethiopia, setting precedence for such endeavors for decades to come.** The third largest river in Ethiopia in terms of the catchment area, the Awash River flows from the central Ethiopian highlands eastward through the open, semi-arid lowlands of the Middle and Lower Awash Valley, where it dissipates in the Afar desert. The Awash basin's outstanding potential for large-scale irrigation agriculture and its proximity to the developing commercial and industrial enterprises—including the railroad to the seaport in Djibouti—were all attractive qualities to both the monarchy and western agencies.

Haile Selassie himself took a personal interest in developing the Awash Valley. By then, he had proclaimed that "Ethiopia is the water tower of Africa"—a phrase welcomed by development officials bent on developing the region and viewing Ethiopia's potential for aiding that process with its abundant water resources. The extensive prior U.S. agricultural assistance in the eastern region as well as the World Bank's continual promotion of development, were important forces promoting the Awash development, as were technical contributions by United Nations.

Events moved quickly and the government began construction of the Koka dam in 1957—in Oromo lands, about 75 km from Addis Ababa. Completed in 1960, the dam was viewed as a "large" dam at the time (43 MW), with a height of 48 meters (compared with over 240 meters planned for the Gibe III dam), a power generating capacity of 43 MW and a reservoir of 180 km². Beyond the rationale that the construction of the dam was being paid for by Italy as part of war reparations, the Koka was rationalized as a major means of fostering economic growth, thus reducing Ethiopia's glaring poverty through electrification and provision of water for "all who needed it" in Addis Ababa and several other major towns. In reality, electricity generated by the dam was overwhelmingly allocated to industry around the capital, along with agribusiness and enterprises in the Awash Valley. The cost of the dam was covered by Italy as part of its war reparation agreement, and construction was awarded to Italian contractors.⁴

In 1962, the monarchy, with aid agency advice and funding, established the Awash Valley Authority (AVA) as the office responsible for the development and management of the river basin. The AVA was fashioned after the Tennessee Valley Authority in the U.S. and was the forerunner of successive river basin development authorities in Ethiopia. It had the

⁴The Italian war reparations payment for the dam was pointed out to me by Elias Habte Selassie, former senior legal officer at the Awash Valley Authority.

contradictory responsibilities of promoting irrigation and commercial agricultural development in the Valley, on the one hand, and administrating the indigenous groups in the Valley for their ‘welfare’, on the other.⁵

The structure and function of the AVA largely paralleled river basin authorities being established in other developing countries during these years. Like them, it attempted to preside over political protest generated by the radical reduction of river flow volume, dispossession of major indigenous populations, and inevitable interethnic conflict increase as groups were forced to compete for shrinking resources.

The AVA regarded the Awash Valley to be largely “unoccupied” and “underutilized”, and developers tagged the peoples of the Middle and Lower Valley—including Afar, Somali and Oromo pastoralists and agropastoralists—“backward” and “primitive.” The vast majority of government and development specialists shared this perspective. Hence, the livelihoods and survival strategies of the pastoralists were of no consequence in the rush to develop hydropower and major commercial agriculture.⁶ There were implementing partners in the formation of the AVA, including the Victoria Water Resources Commission of Australia, contracted by the Food and Agriculture Organization (FAO) of the U.N. to help implement water resource development and agribusiness development. As per their Terms of Reference (or ‘scoping’ specifications), consultants for feasibility studies took no account of the Valley’s indigenous population—assessing only irrigation agriculture and water resource development potential. Despite multiple volumes of feasibility studies for agricultural development that this writer has inspected, none contain any substantive treatment (even identification) of the indigenous populations in the region—let alone their settlements, livelihood needs, or resource dependency on riverine or other resources in the Awash basin.

- **The Koka Dam and its accompanying large-scale irrigated commercial agriculture caused major economic decline among the Awash Valley’s indigenous Oromo, Somali and Afar pastoralists and agropastoralists residing there for centuries.** Numerous reports of these effects have been produced over the years, including by Bondestam (1974), Emmanuel (1975), Carr (1978) and Kloos (1982). These groups depended on Awash River resources for grazing and watering their livestock, for food gathering and hunting during times of severe drought, and in some instances, for flood recession agriculture. Sharply increased vulnerability to malnutrition and disease among the indigenous population brought both heightened and new diseases (Kloos 1982), especially those accompanying the commercial farms (for example, tuberculosis, malaria, and schistosomiasis).

The monarchy continued with its planning and construction of hydrodams and agribusiness development, with strong international support. The monarchy built two additional dams along the Awash: Awash II (32-MW) in 1966 and Awash III (32-MW) in 1974 (along with transmission facilities)—both well downstream along the 1200 km river, in traditional Afar lands, and both with financing by the World Bank. These too have produced intense conflict with local residents, since they were directed primarily to corporate-style irrigated agricultural enterprises (World Bank 1969).

In the Middle Awash Valley, Ittu and Kerrayu Oromo pastoralists lived side by side. Both experienced major economic decline from the Koka dam and new irrigation agricultural enterprises along the Awash River. This writer conducted a U.S. National Science Foundation funded socioeconomic study among the Ittu Oromo in 1975–76, documenting the impacts of both the dam and the major sugar cane plantation (H.V.A., or Hanger Vondr Amsterdam) established on traditional Ittu lands and with a major plantation along the river since 1966 (Carr 1978). Middle Awash Valley pastoralists were expropriated from their riverside Awash Valley lands by large foreign-owned, irrigated commercial farms (Carr 1978; Bondestam 1974); Afar sultanates, however, controlled significant areas of irrigated agriculture in the Lower Awash Valley following the construction of the Koka Dam. The biggest losers from these agricultural developments were the pastoralists and agropastoralists, since their livelihood depends on access to the riverine zone for livestock watering and last option grazing—especially during prolonged drought periods—as well as for flood recession agriculture, wild food gathering and on occasion, hunting. The pastoralists were essentially cut off from their traditionally available resources along the Awash River and had to risk hostility and violence from the plantation workers in order to gain access to the highly polluted (with

⁵I am grateful to Elias Habte Selassie, former senior legal officer at the AVA, for his insights regarding the roles and impacts of the AVA on the Awash Valley’s population.

⁶There were exceptions. One FAO consultant’s report detailing the land tenure crisis for the pastoralists, for example, was suppressed by the U.N. agency and the AVA. A senior staff member of the Land Reform Ministry in the middle to late 1970s—during the Derg period—produced a second report on the plight of the pastoralists, but this too was suppressed. The director of the legal division of the AVA also raised the issue of Afar and neighboring ethnic group expropriation by the government’s concessions to irrigated farming interests, although marginalization of these peoples continued. This writer acquired these reports with AVA and Ministry personnel and discussed the problems of dissent during research in 1975 in the Middle Awash Valley (see below).

pesticides and fertilizers) and stagnant plantation waters in order to obtain water for their own household use.⁷ Government repressive measures were commonplace, along with increasing militarization of the region and periodic flare-ups of violence between the disenfranchised pastoralists and the farm laborers—most of whom had been transported from politically volatile regions in the highlands.⁸

By the early 1970s, 37 % of Ethiopia's labor force was in agriculture, and of this, 70 % were employed at H.V.A. facilities (Araia 1995)—many of whom were at the Metahara farm in the middle Awash Valley. The expulsion of the Kerreyu and Ittu pastoralists' and agropastoralists' from their Awash lands in favor of large-scale irrigated commercial farms generated major indigenous resistance.

Only one more relatively large dam was constructed during that period—the 134-MW dam in the Abay River ("Blue Nile") basin of western Ethiopia. Like the Koka and later dams along the Awash River, the Finchaa dam was planned with large-scale agricultural enterprises in mind—especially sugar. The Finchaa dam was financed by the World Bank as well, after arrangements between the monarchy and USAID deteriorated over the matter of tied aid for U.S. contractors and suppliers.

By the end of the 1960s, the World Bank had functioned as the key force in planning, coordinating or funding hydrodam, road, telecommunications and power production in Ethiopia. The combined (IBRD and IDA) Bank loans extended for these developments in Ethiopia between 1950 and 1969 totaled USD 84 million (World Bank 1969; 1969 currency values).

➤ **Following the overthrow of the monarchy in 1974, the military regime—or Derg⁹—was consolidated under Mengistu Haile-Mariam and derived support primarily from the Soviet Union, until the late 1980s.** What is less well-known, however, is that the vast majority of aid to Ethiopia during this period came from the West, including virtually all of the relief aid to the country—especially during but not limited to, the crisis level hunger years of the mid-1980s. The World Bank, for example, produced numerous economic reports and missions during these years of the Soviet-backed Mengistu regime.

From 1981 on, the Bank extended several hundred million dollars of loans to the Soviet-backed regime and turned a blind eye to Mengistu's repressive policies. It also allocated USD 39 million to Ethiopia's Ministry of Agriculture, for example, while the Ministry was directing a massive program of evictions and forced relocations throughout the country. The Bank had adopted a strategy of continued presence in the USSR-backed, so-called 'socialist' state of Somalia since 1969—a strategy that it considered successful toward building the western powers' agenda. It again utilized this strategy in Ethiopia during the Mengistu 'socialist' period.

One large dam was completed under the Derg—the 153 MW Melka Wakena dam on the Shebelle River—along with a variety of water management schemes and small dams, mostly in the Gambella area of western Ethiopia. The Shebelle is a transboundary river, originating in eastern Ethiopia and flowing through semi-arid Somalia to its terminus at the Indian Ocean. The Somali government (then headed by U.S.-backed President Siad Barre) viewed the Melka Wakena and its accompanying irrigation agricultural development with hostility since it radically reduced the river's downstream flow to Somalia's primary agricultural area—the Lower Shebelle Valley.

Mengistu initiated one giant agro-industrial project, the Tana-Beles development—an endeavor that failed entirely and produced widespread hunger, disease and death among project settlers. The Tana-Beles plan was for more than 200,000 ha of farming land and a 'resettled' (by force) population of 75,000–80,000. The construction company for this EUR 150 million project was Salini Costruttori—a family owned and globally active company engaged in Ethiopia since Haile Selassie's time.¹⁰

⁷This writer held a number of discussions with the manager of the HVA sugar plantation. In these discussions, the manager frankly stated that the protection of local residents' access to the river or to water, as well as the prevention of pollution in the plantation's open irrigation channels was "nowhere in the company's agreement" with the GOE and that these matters were "none of their concern." Heavy government police presence in the region prevented effective protest, although on occasion, the Ittu and Kerreyu resisted. One dramatic instance of this involved a 200 km march by Ittu Oromo elders and their supporters to the Parliament building in Addis Ababa.

⁸In recent years, some Kerreyu and Ittu pastoralists in the Middle Awash Valley have initiated small irrigation agriculture on available lands along the river—partly in defense of further expansion of the commercial farms. The human ecological and survival strategy relations of these Ittu communities and the impacts on them by these developments are described in this writer's 1978 report.

⁹The Derg (or 'Dergue'), a short name for the Coordinating Committee of the Armed Forces, Police and Territorial Army—later retitled the Provisional Military Administrative Council, ruled Ethiopia from the overthrow of Haile Selassie until 1987. In 1987, it was then 'dissolved' by the its head, Mengistu Haile Mariam, who held on to power until his government was defeated in 1991.

¹⁰Salini became the primary construction firm contracted by the GOE for the series of Gibe dams (described below).

Tensions between Ethiopia and Egypt were increasing during the Derg period over Ethiopia's stated intention to dam the Abbay River (Blue Nile), which Egypt viewed as a dire threat.¹¹ Ethiopia had, in fact, been insisting on its "sovereign right" to develop its rivers at a number of international meetings, (including a major United Nations international water conference in 1977)—an insistence continuing until the present.

There was in fact international development bank support for this dam undertaken by the Derg. While the Soviets and Ethiopians progressed with plans to implement the project, the development banks were conducting feasibility studies for the damming of the Abbay River. The African Development Bank (AFDB) was reportedly intending to fund Mengistu's project until Egypt successfully maneuvered its blockage in 1989.¹²

Ethiopia remained at least formally identified with the Non-Aligned Movement (NAM)—established in 1955 in Bandung and attended by Haile Selassie's government at the first Summit in 1961. The Derg continued to actively engage in NAM, but with the approaching fall of the Soviet Union and major need of economic and other support, the Mengistu regime became more disengaged.

- **By the late 1980s, Soviet aid under Gorbachev's "perestroika" was waning and the Ethiopian regime faced continued economic decline. Mengistu began shifting policies to adopt a series of Western economic 'reforms.'** The new policies included lifting price controls, privatizing farms, and allowing free marketing of some goods.

An important institutional change at this time was the formation of a new agency to oversee river basin and power development. The government, under international agency 'advice', restructured the Awash Valley Authority—widely considered to be a failure—to form the Ethiopian Valleys Development Studies Authority (EVDSA) in 1987. The EVDSA's mission to "identify development projects," including their irrigation potential, and to "ensure environmental protection" for all Ethiopian river basins was a component of Mengistu's interest in continuing hydrodam development with Western support. Like the AVA, the new agency did not take into account the livelihood needs of indigenous peoples who resided throughout the lowlands downstream from the dams already built or under consideration. The regime's massive scale relocation of highlanders onto pastoral lands in eastern and southwestern Ethiopia, coupled with its repression of populations resisting these actions, were evidence enough of such disregard—actions that remained unchallenged by the Soviets and the western banks.

- **The African Development Bank (AFDB), meanwhile, was continuing the plan for 'modernizing' Ethiopia's river basins by funding the country's first comprehensive Master Plan for river basin development in 1990.**

- The AFDB sponsored plan for Ethiopian river basin development, entitled "Preliminary Water Resources Development Master Plan for Ethiopia," was released in 1990. This was a multi-volume desk study produced by WAPCOS—a public sector Indian water, power and infrastructure global consulting firm that was formed in 1969.
- The Master Plan identified and detailed the hydrodam and irrigation agricultural development potential for all major Ethiopian river basins, including the Omo River basin.
- As with feasibility studies for the Awash River basin development, no account was taken of the indigenous populations within these river basins, including the predictable dam and irrigated agriculture impacts on their livelihoods.

Given the fact that the GOE had already begun construction of the dam almost three years prior to any downstream impact assessment, the development banks and their contracted consulting industry analysts complete the three-way system of collaboration and complicity that illustrates the institutional nexus for river basin development policy.

¹¹The conflict building between the two nations was more complex, including Ethiopia's objection to Egypt's plan to allocate water to the Sinai 'New Lands' project.

¹²This writer's personal communication with an African Development Bank official in Dhaka, Bangladesh, in 2001—an individual previously stationed in Ethiopia.

The Resurgence of Western Dominance in River Basin Development

- **The Ethiopian People's Revolutionary Democratic Front (EPRDF)—a coalition of opposition forces led by the Tigrayan Peoples Liberation Front (TPLF) chairman Meles Zenawi—overthrew the Mengistu regime in 1991.** Reversing Ethiopia's prior 'socialist' orientation, the EPRDF relied on Western powers for political, military and economic support.

The EPRDF government's emphasis on economic growth and export-oriented development suited western interests. The U.S., for example, has viewed Ethiopia as a key factor in its geostrategic interests within eastern Africa, especially after the collapse of Somalia. Together with its European allies, the U.S. has considered Ethiopia to be not only a partner in 'anti-terrorism' and security activities, but also a main source of power for economic development and western investment in eastern Africa (including oil and gas industry expansion—see Appendix A). These interests have reinforced their "turning a blind eye" approach to the EPRDF's policies of political repression, land expropriation, and other types of human rights violations.

Under the EPRDF, development bank hydrodam planning continued, with large-scale infrastructure projects, including railways and major roads. The GOE consistently proclaimed (as it continues to) that large dams are a necessity for Ethiopia's 'national security' and bring 'economic progress for all.' GOE and aid agencies alike quote low levels of electrification—including in the poorest rural areas—as supporting this development element, even though large dam electricity primarily benefits urban industry, large-scale irrigation agriculture (when it accompanies dam construction) and export marketing. As in the Haile Selassie and Derg periods, the EPRDF omitted consideration of the impacts that the planned dams would have on indigenous peoples in the lowlands downstream from the projects. Funding and procedural requirements of international finance organizations, however, necessitated more sophisticated efforts to legitimize these developments.

- **Soon after the EPRDF came to power, a major turning point occurred regarding the development potential of the Omo River's hydropower.** Hydrodam constructions in the lower Omo basin quickly became a central concern in GOE and development bank planning. The hydroelectricity generating potential of the Omo River was deemed outstanding, based on exceptionally high flow volume measurements in a deeply gorged section of the river—the present site of the Gibe III dam. This potential had, in fact, been assessed years earlier, under the Derg, by both World Bank consultants and North Korean specialists.

In 1993, the African Development Bank (AFDB) contracted the U.K.-based global engineering consulting firm, Richard Woodroffe & Associates to prepare a Master Plan Study for the Omo-Ghibe River basin. This lucrative contract of USD 6.4 million specified a broad range of issues for consideration, including baseline description of the basin's physical and social character, water and irrigation agriculture potential. The nine-volume Master Plan recommended "*future development to the year 2030, considering the basin in two [administrative] parts*" (Woodroffe & Associates 1996).

The AFDB's Terms of Reference limited the study and Master Plan to Ethiopia—despite the transboundary nature of the Omo River and the obvious implications of dam building for the Kenyan economy and environment—and excluded consideration of downstream indigenous peoples' livelihood systems. The economies, resource dependency patterns, and vulnerability of populations to the impacts of dam and irrigated agricultural development were treated as 'externalities'—an approach that has largely persevered to the present. The Woodroffe & Associates Master Plan noted the "importance" of "further study" of these issues, but it did not question basic GOE plans for major dam and irrigated agricultural development.

Acres International Ltd., a Canadian consulting firm long associated with the international banks and Ethiopia's government, produced a Power System Planning Study for EELPA in 1996. Acres prepared an Ethiopia Power System Expansion Master Plan for EEPSCO in 2000, and yet another update of the plan in 2005—the latter with the objective of tripling Ethiopia's power supply in five years, to 2842 MW. The planned increase in power generation far exceeded projections of domestic needs, with the surplus of at least 50 % likely to be exported to neighboring countries. In 2004, Acres International engaged in consulting on the Gibe dam developments but was debarred by the World Bank, based on corruption charges.

- **In order to rationalize and promote the aggressive new hydro development, in 1997 the GOE established the Ethiopian Electric Power Corporation (EEPSCO), to promote and coordinate hydrodam and electricity projects.** Ethiopia's top executive office issued regulation No. 18, corporatizing EEPSCO for "indefinite duration and conferring it with the duties and powers of the previous Ethiopian Electric Light and Power Authority" (EELPA). With its huge budget of ETB 6.1 billion (about USD 890 million in 1997), EEPSCO took the lead in developing and managing electricity, including its transmission and distribution within Ethiopia, as well as overseeing the development of electricity export to neighboring countries.

Energy export, with Ethiopia as the “**tower of energy**” in Africa, was substantially advanced by this institutional change—one that had been planned for years but with ominous implications for hundreds of thousands of indigenous residents in the lower Omo.

As one of Ethiopia’s most prominent parastatals, EEPSCO has enjoyed a central role in the highly politicized arena of hydropower development. A stalwart of Ethiopia’s major privatization and economic growth and development “at all costs” approach, EEPSCO has been far stronger than its predecessor, with a large budget and more than 12,000 employees (only exceeded by the Ministry of Education). It was defined to be directly accountable to the Prime Minister, who appoints its top executive. As part of their responsibilities to implement the policies of the Prime Minister’s office, EEPSCO officials have handled many of the government’s responses to international critics of the Gibe III dam.

Immediately after its creation, EEPSCO engaged in planning the first dam in the Omo-Gibe River basin—an effort on the agenda of the government and the international banks since the comprehensive Master Plan of 1990/91.

Other small GOE agencies were established to have responsibility for regulation and oversight of energy and environmental issues: the Ethiopian Electricity Agency (EEA), Environmental Monitoring Unit (EMU), and Environmental Protection Authority (EPA). These were created largely in response to international aid organization procedural requirements for consideration of funding. All are subordinated to the agencies they are allegedly overseeing and are clearly controlled by the Prime Minister’s office, where all major energy policy is formulated or approved.

The Ethiopian Electricity Agency (EEA) was created at about the same time as EEPSCO, with responsibility for “review” of EEPSCO policies—notably, tariffs. However, the EEA had no enforcement powers and was reduced to a purely advisory role, with some political legitimation value to the GOE and the international banks.

An Environmental Monitoring Unit (EMU) was established in 2002 by the GOE’s ‘Proclamation for the Establishment of Environmental Protection Organizations.’ This occurred while the Gibe I dam was already under construction—yet it was to ‘oversee’ any problematic impacts of the project. However, the EMU has shown no divergence from the policies or practices of EEPSCO, and it is structured to act in an advisory capacity and to prepare technical reports for EEPSCO. These included the 2009 ‘*Environmental and Social Impact Assessment*’ for the planned **Gibe III-Sodo 400 kV Power Transmission Lines Project**. Significantly, Sodo—a town about 50 km from the Gibe III dam site—is a hub for the planned ‘Power Pool’ or ‘Energy Highway’ between Ethiopia and neighboring countries.

Since the internal procedural requirements of the AFDB and World Bank precluded them from supporting the Gibe III dam, the 50 km power line from the Gibe III dam to Sodo was arranged to be funded largely by the.¹³ The falsity of the banks’ claim of non-involvement in the Gibe III dam is a matter revisited in Chaps. 6 and 10.

- **The Environmental Protection Authority (EPA) was established as a monitoring and regulatory agency in 2002, by Proclamation 295—largely at the behest of international funding agencies. It replaced a predecessor body embedded in a Ministry.** Although it is designated as an “autonomous” or “independent” agency, the Authority is directly responsible to the Prime Minister’s office (the Prime Minister designates the EPA head or Environmental Council member and those from the regional governments, as well as reviews its policies). Among the 26 Powers and Duties of the EPA are its establishment of “a system for environmental impact assessment of public and private projects, as well as social and economic development policies...,” including hydroelectric and other major capital projects. The Authority’s responsibilities largely mirror those in major donor country governments and include shaping environmental legislation, preparing the GOE’s State of the Environment reports, and ‘ensuring’ that environmental policies are implemented by:

¹³Contrary to statements by later ‘independent’ development bank consultants that they were ‘unaware’ of the plans for major energy export, rather than water releases for downstream small-scale irrigation projects for ‘social development’ in the pastoral and agropastoral lowlands of the Omo basin, the GOE and development banks’ intentions were fully evident throughout the 2009 report and other accessible technical reports.

- Overseeing environmental impact assessments.
- Issuing or withholding approval on EIAs—with timely receipt of them for review.
- Guaranteeing “participatory environmental management”.

The gap between EPA rhetoric and reality has remained starkly evident in the case of large dam development. Although all dam projects are legally required to undertake a ‘full review’ and license approval by the EPA prior to construction, in practice, this directive has been ignored and in any case, the Authority remains under essential control by the Executive.

‘Fast Track’ to the Gibe III Megadam

The combination of the GOE’s disregard for pre-project impact assessment or project outcomes beyond its narrow objectives, the turning of a blind eye to the GOE’s procedural violations on the part of international finance agencies, and the complicity of the global consulting industry has produced a ‘fast track’ approach to the Omo River basin development which ignored the impending dam impacts.

This approach to Omo River basin development has set the downstream Omo region with its major indigenous population along with Kenya’s Lake Turkana area and its communities on the road to a social catastrophe and major environmental destruction. This destruction would be ‘paid for’ by the citizens and taxpayers of Ethiopia and Kenya.

- **The GOE heralded the Gibe I and Gibe II projects in the Omo River basin as the beginning of a Gibe cascade of dams**—all widely represented by the GOE and development agencies as in the ‘national interest.’ This cascade includes the Gibe I (184 MW), the Gibe II (420 MW), the Gibe III (1870 MW) being completed, and the planned Gibe IV (1472 MW) and Gibe V (560 MW) dams.

The Gibe I dam initiated the ‘cascade’ of dam development (Fig. 1.10) in the Omo, or Gibe-Omo River basin. It was constructed on the Gilgel Gibe River (“little Gibe” River) which originates in the highlands around Jimma, Ethiopia. The river flows northward from the Gibe I dam for about 25 km until it joins the larger Gibe River (from the highlands of Wollega) flowing southward. Downstream from this confluence, the Gibe River is referred to as the Omo River. The Omo River then continues southward to its terminus at Lake Turkana.

Construction of the Gibe I dam had begun much earlier, with a GOE contract to a North Korean engineering firm. The project was abruptly halted, for political reasons, until Meles’ government reactivated it. The World Bank provided the major funding (USD 331 million) for the Gibe I dam with additional support from the European Investment Bank (EIB) and the Austrian government. Construction of the Gibe I was contracted to Salini Costruttori—a company long familiar to GOE officials and well regarded by them for its “timely completion of projects.” Salini is a multi-billion dollar, privately owned, global corporation with close ties to Ethiopia, dating back to its contracted building of the Legedadi dam and treatment plant on the Akaki River, east of Addis Ababa, during the Haile Selassie era.

The EEPSCO issued an Engineering Procurement Construction (EPC) contract to the Italian-based Salini Costruttori—a ‘turnkey’ contract for a completed project, eliminating any oversight during the construction period. By a special clause in the contract with the GOE, Salini also had no financial liability for the project. EEPSCO repeated its turnkey contracting—*disregard for bidding process and project oversight*—in successive Gibe dam contracts with Salini.

While Salini was the main construction contractor, the firm’s frequent partners—Studio Pietrangeli (also long involved in Ethiopian water projects) and ELC-Electroconsult (with *Coyne et Bellier*), designed the structures. As with Salini, none of the Spanish and German firms contracted for joint ventures or services were subject to external oversight.

Several international non-governmental organizations investigated the process of Gibe I dam guidelines compliance with international requirements and presented detailed accounts that squarely contradicted the World Bank’s assertion that the project had “satisfied all required safeguarding of the environment and local human communities.” Most detailed among

these reports is that by the Rome-based non-governmental organization, *Campagna per la Riforma della Banca Mondiale* (CRBM), as part of its investigation of the European Investment Bank's funding procedures (CRBM 2008). The CRBM pointed out, for example, that the Ethiopian EPA did not produce an environmental or socioeconomic impact report (EIA) *prior to* the development, despite GOE and international bank requirements to do so.

- > **The GOE also signed a no-bid EPC ('turnkey') contract with Salini for the Gibe II project—again without open bidding and oversight.** The Gibe II power station was a continuation of the Gibe I project and did not involve dam construction. Instead, water was to be transferred from Gibe I through a 26-km tunnel passing under Fofa Mountain to the Gibe II power plant. Studio Pietrangeli planned the overall scheme on behalf of Salini, according to EEPCO, as part of the ELC-Electroconsult contract. Salini also contracted its long-term partner, S.E.L.I. S.p.A, for EUR 37 million to perform the tunnel excavation.

EEPCO contracted the Gibe II project in 2004, the same year that Gibe I began operation. Funding for this 420 MW project was EUR 375 million: EUR 50 million from the European Investment Bank with additional funding approved by the Italian Directorate General for Development Cooperation (DGCS). Major controversy arose in the Italian government over serious irregularities in the contracting process. The financial and political complexities of this situation—exemplified by the Prosecutor's Office in Rome filing criminal charges against the Gibe II project contractors—complicated the involvement of Italian agencies in funding the Gibe enterprises (CRBM 2008).

- > **Three different tunnel disasters occurred at the 26 km Gibe II tunnel project—in 2006, 2007 and 2010.** The first project breakdown occurred in October 2006 when an intake portal hit a fault that spewed mud under high pressure, causing an entire section of the tunnel to collapse.

A second failure occurred in June 2007, when a section of a secondary tunnel collapsed—filling a substantial section of the main tunnel.

Yet a third breakdown came about in 2010, when high pressure from a geologic fault caused a major break with mud and rock flowing into the tunnel.¹⁴

Evidence points to these disasters being linked to seismic occurrences. ARWG physical scientists working in the region for decades described the seismically active character of the region (ARWG 2009), and this has been substantiated by the research of Kinde and associates (see Chap. 3). This interpretation is bolstered by the geological profile of the Gibe II project, as well as the seismic record in the region. Salini reportedly had overseen poor seismic studies of the region, and without external oversight. Hence, conditions were ripe for such collapse. Of equal concern is the fact that Salini itself was in charge of repairing the tunnels and 'remedying' the failures. According to its EPC contract terms with EEPCO, *Salini bore no responsibility for these breakdowns in the tunnel.*

These failures by Salini and the design/construction engineering firms underscore the ominous situation regarding seismic and landslide danger at the Gibe III dam.

- > **The formation of the Gibe III dam project reflected the conflicts of interest at play and the lack of oversight, as well as disregard for the environmental and social impacts of the Gibe I and Gibe II projects.** The sequence and timetable of GOE (EEPCO) dealings with Salini about the Gibe II illustrate the procedural violations of Ethiopian as well as international aid providers.

- Shortly *after* Salini began construction on the Gibe II project, EEPCO was negotiating with the company to conduct a technical feasibility study of the 1870 MW Gibe III project, even though Salini was obviously a contender for the construction contract. The GOE signed a feasibility agreement in October of 2005. Salini presented a preliminary design document in mid-January of 2006. Two weeks later, Salini and EEPCO signed a Memorandum of Understanding (MOU) for a 'full' feasibility study.¹⁵

¹⁴See Chap. 3 for more detail. These breakdowns are detailed in the Tunneltalk Forum (www.tunneltalk.com).

¹⁵The timing of these phases is outlined at the EEPCO website (<http://www.eepco.gov.et>).

- After only five months (in July 2006), the EEPKO signed a no-bid Engineering Procurement Construction Contract (EPC) with Salini for construction of the Gibe III dam, with no provision for external oversight. On both counts, the arrangement contravened both Ethiopian regulations and international development bank procedural requirements for project funding. EEPKO justified the no-bid award by citing Salini's past performance, particularly "its record of completing projects on time."
- The Gibe III dam contract was for EUR 1.47 billion. This figure excludes expenses for constructing the energy transmission and distribution system, as well as the "assured" mitigation and other measures to cope with negative socio-economic and environmental impacts. Funding for the Gibe III dam continued with difficulty, as the GOE applied for support from a variety of multilateral and bilateral aid and financial agencies.

Construction of the dam began in December 2006, despite no environmental or socio-economic impact assessment. Ethiopian law requires that the assessment be approved prior to major capital projects being undertaken. Clearly, the GOE's insistence that required procedures were adhered to in the case of the Gibe III dam is incorrect—a fact well known to the World Bank (WB), the AfDB, the EIB, and major bilateral agencies.

- **Three years after Gibe III construction began, EEPKO released two environmental and socioeconomic impact assessments (ESIAs), both of which were fundamentally flawed.** The first impact assessment, entitled *Gibe III Hydroelectric Project, Environmental & Social Impact Assessment*, 300 ENV RC 002C, was released by EEPKO in January 2009 (GOE 2009a). The contract for this assessment was awarded to the Italian engineering firm, *Centro Elettrotecnico Sperimentale Italiano S.p.A (CESI)* by Salini and EEPKO. As per its Terms of Reference, CESI addressed only the vicinity of the Gibe III dam under construction—omitting the entire downstream impact zone in both Ethiopia and Kenya. Even with this limited scope, the report contained major false assumptions and misinformation, as pointed out by numerous international critics (mostly non-governmental organizations and researchers, including those from the ARWG and Oxford University).

EEPKO released its second environmental and social impact assessment (ESIA) later in 2009—this one produced by another Salini partnering firm, Agriconsulting of Italy, in association with MDI Consulting Engineers. This report, entitled *Gibe III Hydroelectric Project: Environmental Impact Assessment—Additional Study on Downstream Impact* (GOE 2009b), is riddled with omissions, misrepresentations, and fabrications. Details of its failings are located in Chap. 6 of this book, and in Carr (2012).

The GOE's exclusion of transboundary impacts was clearly done with full awareness by the international development banks, which have taken the same approach in their Terms of Reference with consultants. There was clear precedence for this dismissal of transboundary effects of the planned Gibe III dam. The World Bank's (2004) statement on the matter is clear and must be regarded as both irresponsible and in violation of its own prescribed principles.

The Omo basin in the southwest should be an early candidate for large-scale development. It produces an annual flow of some 17 BCM of water with considerable irrigation potential, estimated at 348,100 ha, mainly in Kolla (lowland zones). The Omo River flows in southern Ethiopia into Lake Turkana, most of which lies in a sparsely inhabited region of northwestern Kenya. The Omo River is particularly important, both for its large annual flow and its irrigation and hydroelectric potential, and its being one of the principal basins where there is unlikely to be any objection by downstream countries. [Emphases added]

- **The GOE's no-bid contracts and lack of oversight for the Gibe III dam presented a challenge for the development banks, since these actions violated the banks' regulations for project funding.** This problem necessitated only indirect means of support for the project. The World Bank and African Development Bank have engaged in multiple types of 'backdoor' support, including:
- (i) Coordinating funding and related support among multiple development agencies.
 - (ii) Funding 'independent' environmental and social impact assessments (EIA, SIA) of the dam project. As noted earlier, these are lucrative contracts issued to consultants whose past performance provides assurance of basic acceptance, with suggested 'improvements' such as further studies and possible (optional) mitigation components.
 - (iii) Funding for government 'services', including technical capacity-building, local governance efforts, 'basic services' support by the state and unspecified expenditures that can bolster the Gibe III project—through dam and electrical

power related infrastructure development or strengthening of police presence for quelling dissent or evicting and expropriating the resources of residents in the project area.

- (iv) Funding for 'downstream' phases of the hydrodam development—especially power transmission and distribution systems—especially those serving bank plans for regional economic integration in eastern Africa.

While these indirect funding pathways of backing the Gibe III may satisfy internal requirements of the banks and the scrutiny of policy-makers in major governments, they do not exempt them from responsibility for the impending human rights catastrophe produced by the dam's operation. The same can be said for global consulting industry firms and individuals.

- **In the face of growing opposition to mega-dam projects throughout developing countries, the continued legitimization of mega-dam projects—especially controversial ones like the Gibe III—relies heavily on the work of allegedly “independent” impact assessment consultants.** Like the Ethiopian government, the World Bank, EIB and AFDB (along with major bilateral agencies) require the services of 'trusted' consultants to produce these reviews. The reality of the bidding process is that only those consulting firms and individuals with a history of tacit support for large water development projects and a demonstrated 'understanding' that any serious reservations about a project in question will be raised only as 'concerns' or 'suggestions' for mitigation, monitoring or further study, are generally awarded the lucrative contracts.¹⁶

Following the Ethiopian government's request for funding from the European Investment Bank, the Bank contracted Sogreah Consulting for an 'independent' review of the GOE's environmental and social assessment. Sogreah had produced the feasibility study for water resource development, and irrigation agriculture in Ethiopia's Awash Valley. Founded in 1923, Sogreah is a global engineering, development and management firm supporting worldwide projects, including billions of dollars of hydrodam, energy and electricity developments. Other Sogreah contracts in the region had included feasibility and design of dams on the Atbara and Setit rivers in Sudan.

The AFDB contracted a consultant who had held a senior position for twenty-six years at Gibb Africa for assessment of Gibe III dam impacts on Lake Turkana. Gibb Africa was originally Sir Alexander Gibb & Partners, first active in Ethiopia in the 1960s. Sir Alexander Gibb & Partners became a limited partnership in 1986 and joined the U.S.-based Jacobs Engineering Group in 2001—contracting for water resource projects, including coordination of multi-investor projects for the World Bank that totaled hundreds of millions of dollars.

Both the EIB and AFDB assessments failed to challenge the most serious omissions, misrepresentations and fabrications of the GOE's downstream impact assessment (GOE 2009b). The GOE's failures included its dismissal of the major seismic threat to the Gibe III dam region, denial of the transboundary nature of the Omo River and its effects, misrepresentation of basic hydrological and ecological features of the region, and misrepresentation of the livelihoods and vulnerability of the indigenous population, and fabrication of “disaster” for local populations from floods (particularly the 2006 Omo River flood).

While the AFDB and EIB 2010 assessments of Gibe III impacts on Lake Turkana and the lower Omo River basin, respectively, did identify some major problems with the GOE's preparation and specific plans for the dam, their comments and conclusions primarily took the form of 'suggestions'—generally, for 'further study' or for new 'mitigation' components. Moreover, most of their suggestions and reservations about the dam and its effects were embedded in lengthy technical text that few would read, so these qualifications were sidelined by the development banks and the GOE—and they remain so. Much of this failure rests with the original 'bounding' or 'scoping' agreement between bank and consultant, as well as the absence of any *accountability* other than to the banks themselves—certainly not to the populations most affected by the development. Chapter 6 details these failures for both GOE and development bank assessments. The AFDB and EIB impact assessments fail to explicitly address the transboundary nature of the impact system—instead, only noting the limitations of their Terms of Reference, or 'scoping' agreement, for example. They also failed to explicitly treat the *cumulative and*

¹⁶Since the late 1980s, global consulting industry firms from India have remained active, WAPCOS' key consulting role in 1988–1990 The head of EEPSCO encouraged Indian companies to invest in his country at a business meeting in March 2008, when the Indian NHPC and others 'expressed interest' in power project related roles (Thakkar n.d.). Indian investors have also invested in the irrigated plantations on expropriated lands in the lower Omo basin.

synergistic effects of the Gibe III dam and the dam enabled large-scale irrigated agricultural enterprises, despite full knowledge of the importance of irrigation system planning by the GOE.¹⁷ Since the 2010 release of the two reports, GOE Executives, EEPSCO and development bank officials continue to cite them as basically endorsing the Gibe III project—particularly in the case of the AFDB report regarding Lake Turkana.

Given the fact that the GOE had already begun construction of the dam almost three years prior to any downstream impact assessment, the development banks and their contracted consulting industry analysts complete the three-way system of collaboration and complicity that illustrates the institutional nexus for river basin development policy.

A Nexus of Public Policy Institutions for River Basin Development: Collaboration with Complicity

➤ **A nexus of institutions engaged in public policy for river basin development emerged early in the post-World War II period—in Ethiopia, as well as elsewhere in Africa and other developing countries.** These institutions are central to the decisions regarding the *formulation* and *implementation* of policy—including its rationalization, promotion and 'evaluation.'

The three central components of this policy nexus are:

- i. **The client recipient nation state(s)— primarily executive offices.** These offices of the state generally oversee all phases of the development.
- ii. **International aid and finance—primarily international development banks.** Other multilateral organizations (regional development banks, U.N. offices), as well as and major donor country bilateral aid agencies, export credit associations, and related organizations.
- iii. **The global consulting industry (GCI).** Within this multi-billion dollar industry, dominant firms and individuals operate transnationally, though sometimes focused in particular regions. In river basin programs, engineering and water resource firms predominate. 'Independent' oversight agencies for large basin development programs vary widely—including those rooted in scientific, multilateral development and academic organizational contexts.

Numerous ancillary institutions and individuals are engaged in formulation, implementation and evaluation phases of river basin development projects. These include a variety of technical offices, local administrative offices, police and military agencies, sub-contracted company consultants and others. Companies meet frequently and often informally with development bank and other key aid agency and government officials, where much of the decision making actually occurs regarding the basic character of the new or expanded projects planned—generally long before any information is released to the public or even to related professional circles. Such gatherings and informal relationships established are often key determinants of the projects or entire programs being shaped, including the scope of specific contract arrangements. This is particularly evident in the African context, where contract awards are frequently informally arranged and details are only nominally available.

Much of the policy discussion in the pages of this book concerns the roles of eastern African and donor states as well as the international finance institutions in river basin development. Some attention to the third component of the policy nexus as outlined above—the global consulting industry (GCI)—is essential to an understanding of the processes unfolding in the tri-nation transboundary region from the Omo River basin development.

Within Ethiopia, the global consulting industry (CGI) was evident by the 1950s, when some members were essential to Ethiopia's first large river basin development—in the Awash River basin. Two of the emerging consulting industry firms that were most active in the Awash basin projects were Sogreah Consultants SAS and Sir Alexander Gibb & Partners. Both were well known in the contract bidding process for major engineering and water projects, and both grew to handle hundreds of millions of dollars worth of development projects.

¹⁷As detailed below, cumulative and synergistic effects between the Gibe III dam and the electricity transmission system—*planned well before the GOE, EIB and AFDB impact analyses*—are also necessary, yet were excluded.

Sogreah Consultants, the France-based, international engineering consulting firm, signed a contract to survey available resources for irrigation agriculture in the Awash Valley, under the auspices of the FAO/UN Special Fund. They produced multiple volumes from this work in 1965—but these were released five years after the Koka dam construction. The Terms of Reference in Sogreah's contract limited the survey to soil, climatic, geomorphic and other physical factors deemed 'sufficient' for estimating the potential of irrigated agriculture. In subsequent years, Sogreah would remain active in Eastern Africa, and it reemerged as the European Investment Bank's consultant for an 'independent' review of the GOE's downstream assessment of the Gibe III's environmental and social impacts (GOE 2009b).¹⁸ No substantive attention was given to characterizing the indigenous peoples in the Valley with respect to their resource needs.

Another major contract for Awash Valley development work was awarded to Sir Alexander Gibb & Partners, a U.K.-based multinational engineering firm that formed a key associate firm—Gibb Africa. As with Sogreah, Gibb Africa won numerous contracts for dam-related development within Eastern Africa. As indicated at the company's website, Gibb Africa has secured more than 1000 contracts for the region. Among these was the controversial Victoria dam in Uganda. A former associate partner of Gibb Africa later contracted with the African Development Bank to produce its assessment of the Gibe III dam's impacts on Lake Turkana (AFDB 2010).¹⁹ Gibb Africa has its headquarters in Nairobi, Kenya.

As the hydro industry has constricted in many developed nations, many consulting (and construction) companies began increasing their roles in developing countries—particularly through relationships with international aid organizations spearheading massive scale dam, river basin and related water resource developments. The strongest 'take-off' period for global consulting industry (GCI) expansion was during the 1970s and 1980s—hastened by environmentalist actions in the developed countries which curtailed further expansion of the hydropower industry. In a sense, the major upswing in water resource and river basin development in developing countries—certainly including Ethiopia—'saved' the industry from possible demise. In a market economy and industry where a growth imperative prevails, consulting firms had little recourse but to operate with complicity relative to the content of work performed for the expanding hydrodam and agribusiness industries in developing countries.

- **The nexus of institutions spearheading and rationalizing much of the major river basin development within Africa and elsewhere in the developing world constantly adapt to changing political and economic circumstances, including opportunities to initiate, implement or evaluate major capital projects in river basins.**²⁰

International development banks, major bilateral aid and other finance agencies simultaneously fashion their relations in this major transformative sphere of river basin projects to suit their geostrategic or investment interests within the region. Similarly, global consulting firms and individuals pursue avenues of technical specialization and geographic focus that maximize their revenue from contracts with South states and international finance organizations.

Global consulting industry firms are a critical component of the rationalization—or legitimation—of development projects and programs, including through 'scientific' and allegedly 'independent' feasibility studies, baseline studies, environmental and socioeconomic impact assessments (EIAs or ESIAAs), evaluations of impact assessments, formulation of management or monitoring plans and other contracted efforts. Contract amounts for these different consulting efforts in river basin developments vary with a large number of factors. Hundreds of thousands of dollars are common contract amounts extended to GCI members for such functions where large capital projects such as megadams and major linked developments are involved. Even fractions of river basin developments can amount to such large sums—or larger. For example, the tender extended by the European Investment Bank (EIB) for the 'independent' assessment of the Gibe III dam—a contract awarded to Sogreah—was announced with a contract amount of up to *EURO 300,000*. Other contracts, including for eastern Africa hydrodam and river basin related development studies (for example, of major irrigation works) produce similar—sometimes, even multi-million dollar contracts. Considering that many of these are primarily desk studies, the profitability levels are obviously attractive to competing GCI members.

¹⁸The EIB review was conducted after the GOE requested funds for the Gibe III dam construction.

¹⁹The AFDB impact assessment for the Gibe III dam was conducted just after the Gibb Africa senior officer left the firm to form a new consulting group, the Nairobi-based Water Resource Associates—also with numerous experienced global industry consultants.

²⁰Some of these firms, notably Salini that was to become so prominent in the Gibe sequence of dam-building, became both construction and consulting corporations—sometimes combining planning, impact assessment, construction and project 'oversight' through self-monitoring.

The reliability and consistency of international consultants fulfilling these roles is a key factor in the establishment of a ‘contract treadmill,’ with a *circle of complicity* whereby the planning and implementation of major river basin projects—with ‘preferred’ consulting firms and individuals playing a crucial role.

The consequences of this circle of complicity are profound in developing countries, including in eastern Africa. In the service of major river basin developments, the institutional nexus skews the assessment (or evaluation) process, toward the following:

- An ‘efficient’ transformation of entire regions to suit the objectives of developing country Executive offices, international aid organizations, and private investment firms—objectives frequently diametrically opposed to the most basic survival needs of local residents, particularly those of highly marginalized populations.
- A net ‘positive’ or at least unchallenging assessment of the megadam or major river basin development plan in question—with ‘suggestions’ such as (later) additional studies, slight modifications of a technical nature, or mitigation ‘concerns’.

A closed system of information, ‘assessment’ and ‘safeguards’ and, ‘consultations’, with local populations (“stake-holders”) as a means of satisfying donor-required procedures—without truly independent evaluation or real accountability to the populations most directly affected by the development.²¹

The composition of the institutional nexus for a large dam and associated river basin development within Ethiopia is outlined in the table below. The specific institutions of such a nexus vary from one country to the next within eastern Africa and the continent more broadly.

What is effectively a ‘revolving door’ of contract signing between firms and individuals of the global consulting industry (GCI), on the one hand, and governments, international aid²² organizations and transnational corporations, on the other, extends well beyond hydrodam and river basin development. GCI members are commonly able to successfully bid on lucrative contracts for major infrastructural projects, such as roads, ports and communications, as well as extractive industries—notably the petroleum industry—in Africa, the Middle East and elsewhere. Of the global consultants identified in Table 2.1, for example, Lahmeyer and Sogreah are actively engaged in oil and gas industry consulting in Africa and elsewhere; Gibb Africa is also engaged in oil work and major infrastructure consulting—the latter with an AFDB contract for the international highway project between Nairobi, Kenya and Addis Ababa, and the AFDB (2010) impact assessment author is reportedly a prominent consultant with one of the two main oil companies active in the Lake Turkana region—Tullow Oil.

- **The Peoples Republic of China basically came to the rescue of the Gibe III’s financing gap in 2010 when the state-owned Industrial and Commercial Bank of China (ICBC) signed an agreement for a USD 459 million contract Dongfang Electric Corporation, backed up with a USD 420 million loan.** The World Bank and the AFDB were reluctant to *directly* finance the Gibe III dam electricity transmission systems, owing to Ethiopia’s violation of their internal procedural requirements for funding. Instead, they have approved more than a billion dollars in funding for the ‘Energy Highway’ between the two nations but ‘only’ from Sodo, Ethiopia—a distance of slightly over 40 km from the Gibe III distributing station. As later chapters of this book detail, there is no way to separate definitively the Gibe III dam project from the transmission line extending from Sodo to Kenya, since Gibe III electricity would be entering the system at Sodo. While the international development banks were hampered by their internal funding requirements, the Chinese government again came to the assistance of the GOE. China agreed to a USD 96.7 million loan from its Export-Import Bank (EXIM) for the construction of the ‘missing’ connection—the 50 km, 400 kV electric transmission line from the Gibe III dam to Sodo. This arrangement left the GOE with only USD 13 million of additional finance needed for the project—an amount easily manageable from other credits (see Chap. 10).

²¹The socioeconomic consultants for a preliminary 2009 AFDB report on the Lake Turkana region stated that they had been instructed by the Bank to ‘inform’ local communities about the ‘strong benefits’ of the Gibe III dam (see Chap. 6).

²²Contract procurement data is often inaccessible or obfuscated within government and development bank public documents. For all practical purposes, such information remains out of view for the general public, or for that matter—for parliamentary or congressional oversight committees, not to mention the communities being impacted.

Table 2.1 Three key components of the institutional policy nexus for major river basin development, with selective list of participants. Ethiopia, 1955–2013

ETHIOPIAN STATE*	INTERNATIONAL AID/FINANCE	GLOBAL CONSULTING INDUSTRY**
<p style="text-align: center;">⇒</p> <p>Including governments of Monarchy → Derg → Present: AVA EDVSA EELPA EEPKO EPA*** MME MOFED MOWR</p>	<p style="text-align: center;">↔</p> <p>Multilateral Development Banks: World Bank AFDB EIB</p> <p>Bilateral Agencies: USAID, DFID, AFD ...</p> <p>European Commission</p> <p>United Nations</p>	<p style="text-align: center;">⇐</p> <p>Sogreah Studio Pietrangeli Gibb Africa/Sir Alexander Gibb/Jacobs Richard Woodroffe & Associates Acres Lahmeyer Coyne et Bellier /Tractebel Centro Electrotecnico Sperimentale-Italiano (CESI) Agriconsulting of Italy, associated with MDI Consulting Engineers Water Resource Associates SELI WAPCOS MWH Global BRL (Ingénierie) Power Grid Corporation of India</p>

*Government agencies identified in above text sections

**Individual consultants and Chinese firms not included

Although competitive with Western investment in hydrodam, major infrastructure, and extractive industry development within eastern Africa, Chinese finance is sometimes adaptive to development bank policies within the region. Chinese funding for the Sodo-Gibe III transmissions lines (and the Gibe III dam itself) is a case in point. The AFDB and World Bank claim that they are “not involved” in the Gibe III dam project, while Chinese corporations benefit from contracts for construction of the energy transmission system.

China’s funding for the Gibe III project—both the dam and transmission lines—adds an extra dimension to its complex relationships of cooperation and competition with Western nations regarding power development in eastern Africa. Chinese financing of highly controversial dams within Ethiopia, including the Grand Millennium dam, continues this complex relationship. Its loans are typically extended without conditionality such as requirement of environmental and socioeconomic assessment or inclusion of safeguards—a laxity no doubt welcomed by the GOE. China is already a major force in extractive industry development, especially oil and gas, throughout much of eastern Africa where it has made major inroads into the system of leases and construction contracts (see Appendix A).

- **As part of its continuing economic liberalization, the GOE has ‘modernized’ some important government structures related to river basin development.** EEPKO was divided into two divisions in late 2013: a construction division (for building and managing power generating stations) and a utility division (for managing transmission and distribution—with marketing outcomes). EEPKO was then acclaimed as more “efficient” and “reliable”—assertions that were likely true from the sole standpoint of the management of dam construction, power generation, transmission, distribution, and international as well as domestic electricity marketing. The General Manager of the Gibe III project has recently been appointed as Director of the new Construction Division, to meet what the GOE, World Bank, and African Development Bank anticipate will be rapidly expanding energy import demand in Kenya and other eastern African countries (see Chap. 10). EEPKO’s long-term director was escalated to the position of Energy Advisor to the Prime Minister.

The EEA (newly termed the Ethiopian Energy Authority) was assigned to ‘oversee’ private power companies newly permitted to invest in Ethiopia. However, the EEA remained largely in a ‘review’ position (e.g., around tariff proposals), subject to the Council of Ministers. The EPA was ‘upgraded’ in 2013, from a proposal by the Prime Minister’s office, to become the Ministry of Environmental Protection and Forestry. The former head of the EPA became an advisor to the new environment minister. The former head’s statement to Reuters News in August of 2013 illustrated the EPA’s misinformation and lack of concern for human life and environmental conditions downstream from the dam when he asserted that major dam projects on the Omo River “...will not cut off water supplies downstream nor worsen living conditions for local people.”

In the present advanced phase of the Gibe III controversy, the situation regarding accountability of the GOE and development banks policies with respect to the lower Omo River basin remains unchanged.

➤ **Reaction by civil society to the Gibe III project was swift and has expanded in recent years.** Critics first emerged following the GOE’s initiation of the project without any account of the downstream human population and environment, and stepped up their criticism after the GOE’s release of two allegedly ‘objective,’ or scientific impact assessments released two years after construction began (GOE 2009a, b). Criticisms and analysis emerged from a variety of non-governmental organizations—primarily international ones, given the politically repressive policies of the GOE. Among these organizations were Campagna per la Riforma della Banca Mondiale (CRBM), Survival International, International Rivers, a Kenya-based civil society organization closely affiliated with International Rivers—Friends of Lake Turkana, Human Rights Watch and the Oakland Institute.

Other critics emerging were researchers and policy focused individuals with established familiarity with the region. These included the world-renowned paleontologist and conservationist, Dr. Richard Leakey, Professor David Turton at the University of Oxford (and founder of www.mursi.org), this writer at the University of California, Berkeley, and other members of the Africa Resources Working Group (ARWG) in Africa, Europe and North America. Numerous organizations and individuals within Kenya, as well as in the Ethiopia diaspora have also questioned the project. Overt opposition to the Gibe III dam within Ethiopia is not politically feasible, given the high level of repression and retribution.

Numerous reports by these organizations have detailed the major procedural violations and the dire consequences of the Gibe III dam for half a million indigenous people residing downstream from the dam, within Ethiopia and Kenya. Gradually, these concerns have percolated through international policy circles and have been raised periodically by government representatives in Kenya, Europe and the United States. U.S. and European nations’ diplomatic support and international aid to the Ethiopian and Kenyan governments, however, have effectively precluded effective examination of the humanitarian and human rights disaster looming on the horizon.

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