

4 Water: A Source of Wars or a Pathway to Peace? An Empirical Critique of Two Dominant Schools of Thought on Water and International Politics

Terje Tvedt

INTRODUCTION

The discourse on water and international relations or on water and hydrogeopolitics has tended to pose a question that is too general: will scarcity of water lead to conflict or cooperation among states? This chapter will, by presenting two dramatic events in the long history of the Nile, show that the relationship between water and international politics is so complex that abstract models or general either/or questions are not very useful. It will argue that in order to understand how the relationship between water, cooperation and power is played out in the real world, one has to analyse not only the hydrological character of the particular river system and how this develops over time, but also human modifications of this system and how the different actors conceive the river at different points in time. A definite physical position in a river basin, be it as an upstream or a downstream power, will definitely tend to make some patterns of actions more likely than other patterns of actions, but the actors will at the same time (but not always) have a wide range of possibilities, between outright competition and full cooperation.

In the 1990s it became quite common to talk about a future of water wars (Starr and Stoll 1988; Starr 1991; Serageldin 1994; Homer-Dixon 1995; Kukk and Deese 1996; Ward 2002; Morrissette and Borer 2004–05). The growing water crisis and the subsequent increasing competition among states in international river basins would lead to wars, said the Vice-President of the World Bank and the Egyptian Minister for Foreign Affairs, and a number of academic articles sounded the alarm bell. Politicians and analysts alike conveyed the idea that water is a resource with links to conflict that range from the plausible to the almost certain (Starr and Stoll 1988; Starr 1991; Homer-Dixon 1994, 1995; Serageldin 1994; Gleick 1995; Kukk and Deese 1996; Ward 2002; Morrissette and Borer 2004–05; Smith and Vivekananda 2008), and the examples typically given were wars between the city states



of ancient Sumer about 5,000 years ago and from etymology; the word rival is derived from two people sharing the same stretch of the river.

Quite soon and suddenly, however, this idea fell into discredit. It was argued that studies had shown the opposite to be the case, and that the connection between scarcity of water and water conflicts and war is a myth. A very influential idea that has emerged at the beginning of the twentieth-first century has been that water and international river basins are some sort of gateways to peace and cooperation. This conclusion is based, it is argued, on empirical evidence; that water wars have never really been fought and that the water 'events', even of a conflictual nature, are (only) 'mild' (Murakami 1995; Wolf 2004, 2007; Wolf et al. 2005; Yoffe et al. 2003, 2004). Quantitative research projects have concluded that there is no observable connection between geographical features, such as rivers, and wars, and have rejected the idea of water wars in general. Long-range studies of water scarcity conducted by researchers belonging to this school have tended to find greater likelihood of cooperation and adaptation than conflict. Water wars themselves are now generally viewed as unfounded hyperbole. Now it is underlined that water promotes cooperation. Water will fuel greater interdependence and 'water and river basins are pathways to peace'.

But, in 2007, again it was warned that water scarcity leads to wars. This time it was the UN Secretary General Ban Ki-Moon who sounded the bell, at the Davos summit. Later the same year, he claimed that the crisis in Darfur grew in part from desertification and a scarcity of resources, especially water (Ki-Moon 2007). A number of other high-profile politicians and activists repeated the same story, over and over again; the conflict in Darfur is the alarming outcome of climate change and water scarcity. But in this case the ascribed relationship between water and conflict cannot be substantiated, since the ethnic and tribal and regional contradictions are very deep and require more than bore holes and rain to be solved.¹

Both the theses about the close, casual relationship between competition over scarce water resources and war and about the casual relationship between competition over scarce water resources and cooperation are too simplistic, and partly deterministic. A specific type of natural entity does not necessitate a specific form of political or geopolitical action (Matthew, Gaulin & McDonald 2003: 866; Phillips et al. 2006, 2007a, 2007b). The theory of linkages between water scarcity and conflict and water scarcity and cooperation should be criticized for embodying some sort of rude nature determinism. This article will show that water wars are no myth; water wars have been fought and with far-reaching geopolitical consequences. It will also show that competition over water may stimulate efforts aiming at collective action, choosing that as the best alternative among available options.

The two cases examined here are both related to the Nile, because this river has been given a prominent place in theoretical discourse on nature



and conflict, and resource scarcity and geopolitics. The first part deals with water wars in the making of the British River Empire in the 1890s. The second part deals with water in the collapse of that same Nile Empire in 1956. Both serve to underline how dominant schools of thought about the relationship between water and conflict and cooperation are biased and simplistic.

First some words about sources. This first part of the chapter is based on the books about the Partition of Africa and the British occupation of the Sudan and Lake Region and its relations with Ethiopia in the decades after 1882, all the reports for Nile control developed in Egypt in the 1880s and the 1890s, all the Annual Reports written by Her Majesty's Agent in Egypt between 1883 and 1907, and the letters and minutes of discussions between Lord Cromer and the Foreign Office and ministers in London about the issue, filed in the archives of the Foreign Office in London and the National Records Office in Khartoum, and the more autobiographical accounts of important colonial actors such as Lord Lugard, Samuel Baker, Winston Churchill, Alfred Milner and Cromer himself.

The second story deals with the futile secret British plans to divert the Nile in Uganda to harm Nasser and the Egyptian nationalists in the mid-1950s. This section is based on a very extensive collection of public and secret documents found in the Foreign Ministry's archive in London on the Suez crisis and the Nile. It also benefits from a reading of the major works on the Suez crisis, although, interestingly, none of them even mentions the issue of the Nile as a weapon.² They are not even mentioned in the Cabinet minutes or in files from the Prime Minister's Office, since these plans were guarded with utmost secrecy.

THE PARTITION OF AFRICA AND A FOUR-YEAR WATER WAR ON THE NILE

The British military campaigns in the Nile basin from 1894 to 1898 are in the historical literature recognized as very important events in the European partition of Africa. The British decision to occupy the Upper Nile should most fruitfully be seen as an example of a far-sighted imperial expansionist policy, driven by a complex mixture of economic and political considerations framed by the Nile's geographical and hydrological characteristics. It was, in short, one of the first modern, protracted water wars, and with long-ranging geopolitical implications.

The British occupied Egypt in 1882, not because of their ambitions for the Nile, which they had not yet developed, but because of another waterway: the man-made Suez Canal, finished in 1869. It brought Egypt into the centre of world politics and great power rivalry, four centuries after the country had been turned into a periphery by Vasco da Gama and the new

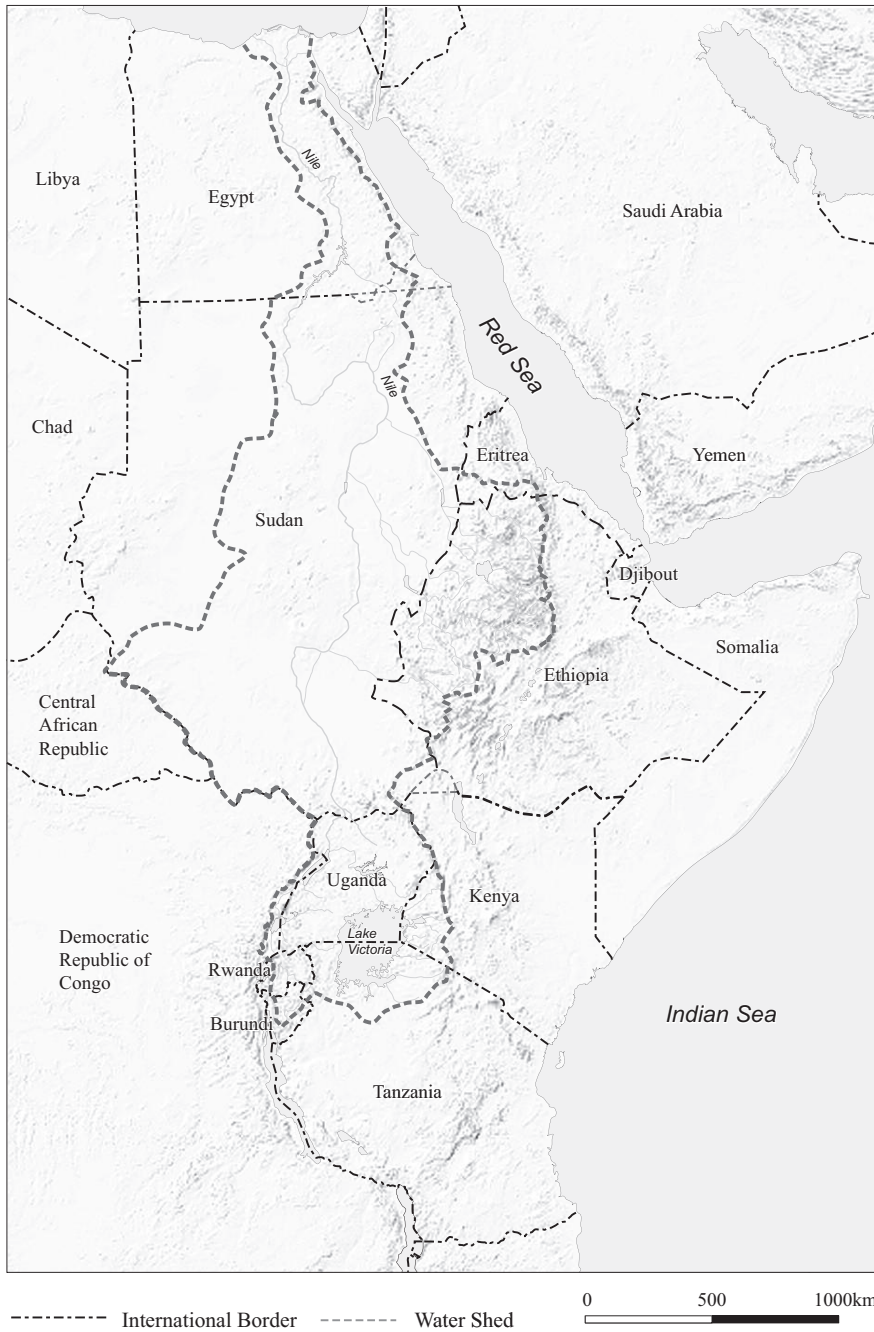


Figure 1. Map of the Nile basin.

trade route he found around the southern tip of Africa to Asia. About 20 years after Britain took control in Cairo, London occupied Uganda, fought a two-year war in the Sudan, and made Nile agreements with the Ethiopian Emperor and with the governments of Italy, France, Germany and Belgium. By 1904 the whole river from its source in the heart of Africa to its outlet in the Mediterranean was under British hydrological control. They had established what could be called a new management regime on the Nile and institutionalized a system for the distribution of its water for the benefit of the downstream countries. Why did this happen and how can it be called a water war?

EGYPT'S WATER SCARCITY, NILE CONTROL AND WATER IMPERIALISM

The British power-holders in Egypt and the Foreign Office in London realized almost immediately that Britain's position at Suez depended on their ability to control the Nile. They had become rulers of a truly hydraulic society, where stability and wealth depended upon the waters of the Nile (see Lawson 2010). They agreed fully with the then Egyptian prime minister Nubar Pasha (1884–88 and 1894–95), who summarized the situation in a famous one-liner: 'The Egyptian question is the irrigation question' (quoted in Willcocks 1936: 67). Now, the introduction of the profitable production of cotton had created a new and ever-increasing demand for more summer water. The big landowners owned about two-thirds of the cotton harvest. The most powerful foreign trade agencies dealt in cotton (Tignor 1966: 234). The British textile industries were becoming more and more dependent on cotton from Egypt. British banks had a great and growing interest in a thriving Egyptian economy. In 1882 Egypt's foreign debt had increased to 100 million pounds, and the annual debt servicing amounted to 5 million pounds (Crouchley 1938: 145), of which a great part went to Britain. Egypt's ability to pay back the loans to British banks to a large extent depended on cotton exports and the value of agricultural land. A telling contemporary reflection of this 'Nile water awareness' in London was the fact that *The Times* reported regularly on how much water the Nile carried!

What was regarded by the Egyptian elite and the British strategists alike as the saviour of the Egyptian economy, the cotton plant, required even and ample watering in spring and summer when the Nile's natural water level was at its lowest. In the first years of their rule the British concentrated on a series of important though smaller projects, like the remodelling of the Upper Egypt basin, cleaning silt from the canals and starting operations at the Mex Pumping Station. Altogether these works improved organization of the irrigation sector, and a better system of drainage and crop rotation contributed to the doubling of the cotton production from 1888 to 1892

(Crouchley 1938: 148). In 1891 the British repaired and made functional the Delta-barrage system just north of Cairo, increasing the area under irrigation significantly.

A GROWING WATER CRISIS

In the early 1890s, however, the upper limit for irrigation expansion within the existing Nile control system had been reached. The yearly and seasonal discharge fluctuations of the river demonstrated that the existing water control system, despite the efforts to improve it, did not always satisfy actual demand. In 1888, for instance, about 250,000 acres in Upper Egypt received no irrigation water.³ Both the years 1889 and 1890 had experienced exceptionally bad summer supply due to low natural river discharges, immediately causing great falls in profits and increased danger of political unrest. The irrigation officers subsequently reported the same year to Cromer, the British leader in Egypt and by some rightly called the 'puppet master of Egyptian politics', that the spirit of resistance against the British presence was 'stronger now than ever' (quoted in Robinson and Gallagher, 1981: 277).

The Aswan dam was opened in 1902, hailed as a victory of British political, economic and technological might. It represented an entirely new technology on the Nile and was the biggest reservoir of its kind in the world. The dam turned out to be one of the soundest engineering projects in the history of water control, but it did not store sufficient water to meet the demand in the summer season. The reservoir could only dam the tail end of the flood due to the large amounts of silt in the Blue Nile.

In the early 1890s a Nile discourse developed, speeches were held and plans were put forward and debated that reflected this feeling of a growing water crisis in Egypt. The former Inspector-General of the Egyptian Irrigation Service J.C.P. Ross summarized this attitude in 1893: 'We have now arrived at a stage in the summer irrigation of Egypt where the available natural supply has been completely exhausted, and there still remains more land to grow cotton' (Ross 1893: 188). This crisis was, of course, socially defined: there was in general water enough for the society to be sustained at the existing level, but influential political and economic interests thought that a crisis was developing since improved water supply would solve what was regarded as a bottleneck in the economy.

Everybody agreed that they had to do something. In this desert country, where more water meant stability for the country and profits for the elite, the Nile had to be improved. In Cairo the annual rainfall was less than 20 mm a year. In Upper Egypt three years could pass without a raindrop falling. The soil was fertile and the sun always shined – alas; the limiting factor was water. The British rulers in Egypt had already experienced the beauty of irrigation in India. Previously, Cromer had been responsible for financial

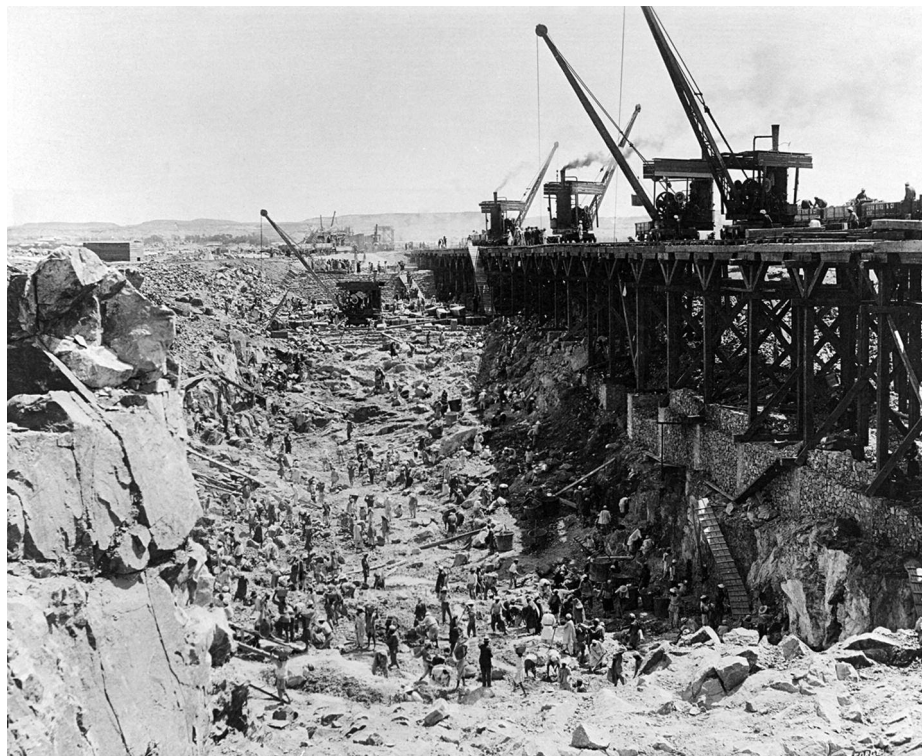


Figure 2. The Aswan Dam, finished 1902. In June 1902, a year ahead of schedule, the first Aswan Dam was completed. The Aswan Dam was a marvel in an age of civil engineering breakthroughs. It changed for all time the regime of irrigation in Egypt, transforming fundamentally Egypt's ancient irrigation from a basin to a perennial system. By the British the dam was regarded and hailed as a crowning of their efforts at taking 'the Nile in hand'. Sudan Archive, Durham.

issues on the plains of the Ganges and Indus, and he had learned at first hand. As boss in Cairo, he immediately recruited a team of British water experts from India. A very close relationship between the political leadership and the water planners developed, later called the Cromer–Garstin regime (Garstin being William Garstin, the Under-Secretary of the Public Work's Ministry, in charge of agriculture, Nile control, roads and buildings in Egypt). Already in 1886 Cromer had claimed that increased water supplies would entail that 'the good results of European administration can readily be brought home to the natives' (quoted in Zetland 1932: 171). Two years later he wrote that British success in Egypt depended on development of irrigation infrastructure and increased access to summer water. According to Cromer, irrigation works were not only a permanent priority, but also a policy which continuously proved its success (see Chapter LIV on 'Irrigation' in Cromer 1908: II,

456–65). From 1890 every Annual Report to the government in London enclosed a separate Memorandum on the irrigation activities. The policy was clear: ‘The best thing the Financial Ministry can do is to place as much money as it can afford at their disposal [British water planners, my comment], confident that whatever is thus spent will bring in a splendid return’ (Milner 1892: 310). While the soldiers held the Egyptians down by force, the water planners conquered their minds, or, as his financial adviser put it in 1892, the British engineer secured the support of Egyptian public opinion (Milner 1892: 310). In the language of the day he ‘justified Western methods to Eastern minds’ (Cromer 1908: II, 465).

Now waterworks of an altogether new type and technology were required. In 1894, the *Report on Perennial Irrigation and Flood Protection of Egypt* was published by the Government, after having been secretly circulated in 1893.⁴ It estimated the future annual need for summer water at 3,610,000 m³ (Willcocks 1893: 9). It asserted that if irrigation were introduced in Upper Egypt, where agriculture still depended on the basin system, and improved in Lower Egypt, the annual income would rise from 32,315,000 Egyptian pounds to 38,540,000 pounds (Willcocks 1893: 5).⁵ How to secure over 3.5 billion m³ of irrigation water in the summer season, creating an estimated net gain of 6,225,000 pounds to the country per year?

The most concrete suggestion of the 1894 report was to build that reservoir which already had been discussed by the government at Aswan in Upper Egypt. This reservoir, by far the biggest in the world at the time, was, however, seen as a temporary solution only. The Council of Ministers in Egypt discussed, for example, in a meeting on 3 June 1894, possible dam-sites in the Sudan, as if it was no obstacle that the dam-sites were in another country (Garstin 1894a). In line with this, Cromer wrote the same year: The Aswan dam within Egypt’s borders may ‘at some future time, ... perhaps be supplemented by another dam south of Wady Halfa’⁶ (i.e. in the Sudan). And the leading water planner, William Garstin, underlined in his annual report (1894) that the ‘construction of a second [dam] to the south will be merely a question of time’ (Garstin 1895). He further wrote that ‘we may confidently predict’ that the Egyptian dam will be ‘only one of a chain which will eventually extend from the First Cataract to the junction of the White and Blue Niles’ (Garstin 1894).

The importance of the ‘chain’ of waterworks in the Sudan that Cromer’s right-hand man was writing about became a more pressing issue when it turned out that the planned storage capacity of the Egyptian Aswan dam, 2,550,000,000 m³ of water, had to be drastically reduced due to technical and ecological constraints. Totally unexpected political problems also arose. In autumn 1894, just after the new report was published,⁷ archaeological circles in France and Great Britain united in demanding a lower water level in the dam at Aswan than the government in Egypt planned. They wanted to protect the ancient temple at Philae from being submerged by water (Scott-Moncrieff 1895: 417). This opposition, one of

the first historical examples of successful campaigning against a big dam, was so strong that it forced the government in Cairo to yield and to amend its plan for the reservoir. The capacity was therefore, according to Garstin, reduced by more than 50 per cent, to 1,065,000,000 m³.⁸ The Aswan reservoir could therefore meet only 25 per cent of Egypt's future needs (Garstin 1907: 53–8). The reduction implied that 2,610 billion m³ had to be supplied from river works upstream of Egypt (Garstin 1901).

In 1891 Cromer wrote a long letter to Prime Minister Salisbury in London on the question of new reservoirs on the Nile. The issue was described as being of 'utmost importance',⁹ since 'the prosperity of Egypt depends wholly on the Nile'.¹⁰ In November 1891 Cromer again informed Salisbury about the importance of the storage question in Egyptian public opinion,¹¹ so as to bring home to the Prime Minister that stability in Egypt as well as the British political and strategic position at Suez hinged on it. Cromer was convinced that in order to maintain control over Egypt, and to develop the cotton crop and cotton export to England at the same time, it was necessary to take control over the Nile basin, or, to be more precise, of those parts of the Nile basin that were important in the context of modern hydrological control of the river.

Even if London had harboured no more ambitious plans than to build the Aswan dam, they could not have developed the Nile control system in Egypt without much better and freer access to information about the Nile upstream of Egypt. The Aswan reservoir could not be rationally operated without better and more exact knowledge of the Nile in the Sudan. Without information on the tributaries' fluctuations before the Nile reached the reservoir, it would be impossible to make the necessary estimations required for its sound management. In 1894, William Willcocks, the author behind the seminal book *Egyptian Irrigation* of 1889 and one of the architects behind the Aswan reservoir, showed that the time the waters took between Khartoum and Aswan was only '10 days in flood and between Aswan and Cairo only five days'. Obviously, proper management of the reservoir and the reservoir gates – especially since the reservoir should only store the tail end of the floods – required a number of gauging stations along the Nile and its tributaries in the Sudan, as well as the re-establishment of a working Nilometer in Khartoum at the junction of the Blue and White Niles. Already in 1882, before the era of reservoirs, major Mason-Bey had shown the necessity for establishing more Nilometers at both the main Nile and its tributaries in the Sudan for planning purposes in Egypt (Mason-Bey 1881: 51–6). In May 1893 the Société Khédivale de Géographie discussed in detail information on water discharges collected at the gauging-stations in Sudan, established on the order of Ismail, from the time when, as they expressed it, 'the Sudan was not closed' (see Ventre-Bey 1884). Until 1885, Egypt had daily received information by telegraph from the Nilometer at Khartoum,¹² and in 1875 a station was erected close to the village of Dakla in order to measure the Atbara (Chelu 1891: 35). The

'fall of Gordon' in 1885 was dramatic and caught the attention of the day (and of historians later on), but the loss of the Nilometer at Khartoum represented a more direct threat to Egypt, because it jeopardized the optimal management of the irrigation system (see for example the description in Milner 1892: 197–8). However, what the water planners in Cairo considered a great loss already in 1885 had far greater consequences in the mid-1890s because of the growing water gap, the vulnerability of the new crop rotation system, and the more exact hydrological information required for the planned reservoir. Willcocks complained in 1893: 'As Egypt possesses no barometric, thermometric, or rain gauge stations in the valley of the Nile, we are always ignorant of the coming flood' (see Willcocks 1893: 17). Scott Moncrieff confessed, while speaking in Britain in 1895 that he, like his audience, had to go to 'the works of Speke, Baker, Stanley and our other great explorers' for information regarding anything higher up than Philae, and said that 'if a foreigner were to lecture to his countrymen about the river Thames, and were to begin by informing them that he had never been above Greenwich, he might be looked upon as an imposter' (Scott-Moncrieff 1895: 405).

For a number of reasons related to the fundamental relation between society and water in Egypt, and the water systems' character (both the physical character of the river, the management demands of the man-made projects for harnessing it, the political interests the planned projects in Sudan and Uganda reflected and strengthened, and the dominant Nile discourse in Egypt at the time when upstream expansion was regarded as natural and necessary), the question therefore came to be not so much *if* they were to occupy the headwaters of the White Nile or the Sudan, but *when* they were to do it. Cromer from the very beginning was therefore not much concerned about London's control of the areas of present-day Tanzania, Rwanda, Burundi and Congo, although they all were situated within the Nile Basin and thus formally within their 'sphere of interests'. These areas contributed little to the Nile flow and the building of water control works there at the time would have no impact in Egypt, and European rivals there would be unable to put any pressure on Britain at Suez. The British had therefore got what they were interested in by the Anglo-German agreement of 1890 where the two European rivals agreed that the Nile basin from Lake Victoria and northwards was a British sphere of influence.

BRITISH CONTROL UPSTREAM!

From about 1890 Cromer wrote about the occupation of the Upper Nile as being necessary – one day. In March 1890 Cromer wrote Salisbury long letters on the question of the occupation of the Sudan, arguing that he had 'always been fully aware of the desirability of bringing the Soudan back to

Egypt'. He even drafted, but deleted, the following sentence in the final letter: 'I have, therefore, always looked forward' to the occupation of the Sudan. What Cromer awaited was that 'essential conditions' should be there. He wrote: 'The great mistake made by Ismail Pasha was that before he had learnt to administer efficiently the Delta of the Nile, he endeavoured to extend Egyptian territory to the centre of Africa'. His experience should be a 'warning' which had to be told to and taught to the Egyptians, Cromer noted.¹³ Two days later he wrote secretly again: 'It cannot be too clearly understood that any civilized Power holding the upper waters of the Nile at Khartoum and Berber will in reality dominate Egypt', and importantly, Cromer argued, this power would be able to exercise control 'over the supply of water'.¹⁴ His annual reports and letters to London show that Cromer in 1890 thought that the British had learnt how to administer the Delta and that the economy was sound. The moment of military action to take control of the river basin was approaching. British hydraulic ambitions made imperial ambitions a rational policy and these ambitions and the

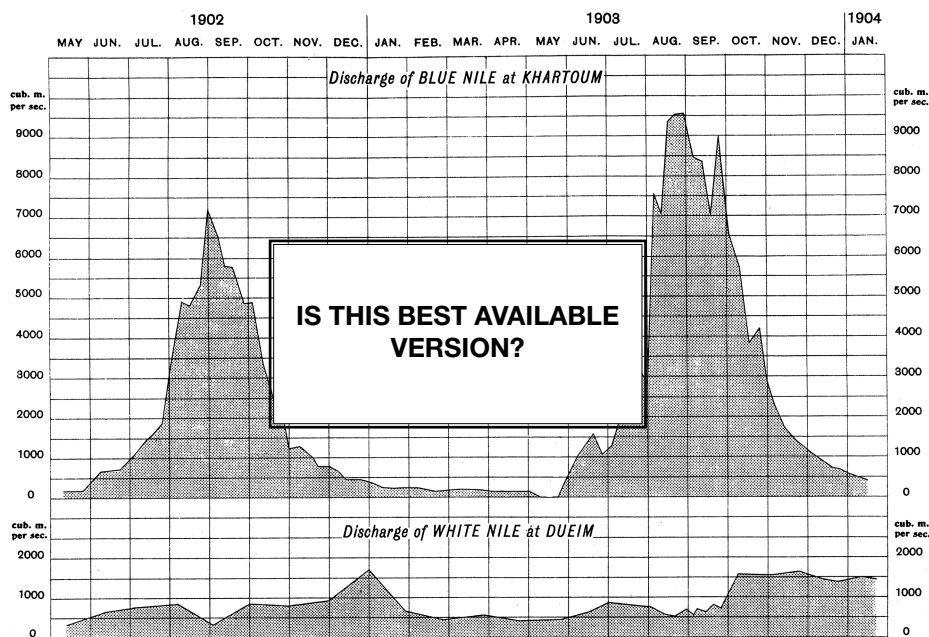


Figure 3. The relative importance of the Blue and the White Nile. This discharge diagram was published in William Garstin's 1904 report. It shows that the British were clearly aware of the importance of the Blue Nile flood during autumn and winter, and of the importance of the White Nile during the *sefi* or summer season. The waters of the White Nile were as 'valuable as gold', it was said, because this tributary made profitable cotton production possible, and the aim was to increase the flow during the cotton cultivation season by building dams and a new channel on the Upper White Nile.

hydrological character of the Nile system also decided the direction of the military takeovers and campaigns.

The most important upstream parts of the Nile basin at the time for the British were the main Nile in the Sudan and the White Nile system coming from Central Africa and winding slowly through the swamps of the Southern Sudan. This was in spite of the fact that almost 90 per cent of the river's water in Egypt came from Ethiopia. But it was not the total discharge that counted. Almost all the waters, about 80 per cent, during the *sefi* season, or the summer season when cotton was cultivated in Egypt, came from the White Nile system due to the natural storage role of the immense swamps of the Southern Sudan and because of the outflow of the Central African Lakes in present-day Uganda. The report from 1894 pointed out that the White Nile was the tributary contributing most to the total water flow of the Nile during the summer season when cotton was grown.¹⁵ The waters of the White Nile were described 'as valuable as gold' (Willcocks 1894: Appendix III: 11).

William Garstin in 1904 put forth a promethean, comprehensive plan for taming the Nile. The new channel bypassing the swamps in south Sudan should start at Bor, and follow a straight line, to the Sobat mouth. Garstin's solution to what was seen as the great loss of water in the sudd-area was magnificent and very simple at the same time, reflecting his conceptualization of the Nile system. He simply drew, as by putting a ruler on a paper, a line exactly south–north – as if there were no people living in the area. This line on this map, before any local socioeconomic investigations, is a graphic expression of the dominant Nile approach: the Nile in south Sudan was a viaduct to northern drylands. The British had worked on this idea since the latter half of the 1890s.

A central idea in the government report prepared in the early 1890s, and published the year London took control of Uganda, was that the hydrological features of the Nile and the future increase in summer water demand would require the regulation of the Nile south of Egypt, even as far as at Lake Albert and Lake Victoria. Willcocks summarized their vision of the Nile: what 'the Italian Lakes are to the plains of Lombardy, Lake Albert is to the land of Egypt' (Willcocks 1894: Appendix III: 11). By damming the lake(s), 'a constant and plentiful supply of water to the Nile valley during the summer months' could be insured (Willcocks 1894: Appendix III: 11). 'There alone', he wrote, 'we deal with quantities of water which approach' the demand (Willcocks 1894: Appendix III: 10). Also in 1893 Ross had speculated along similar lines. He envisaged that by raising the water level of Lake Victoria by only 1 m one would get a water flow in the Nile which was '30 times more than wanted' (Ross 1893: 189). It was therefore natural that Scott-Moncrieff summed up the 'Nile vision' of the British water planners in Cairo in this way at a meeting in London:

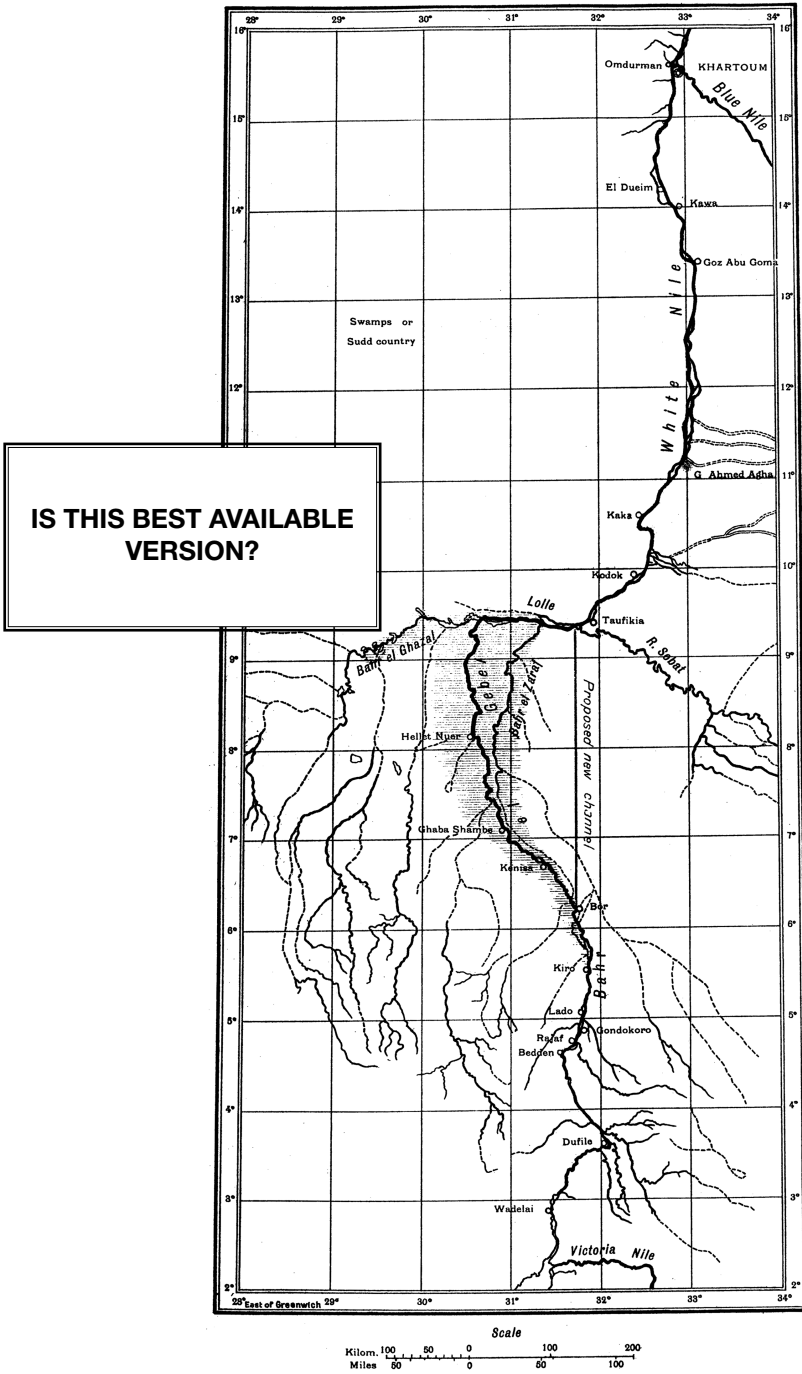
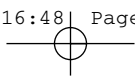


Figure 4. This figure is taken from Garstin, William, 1904. Report Upon the Basin of the Upper Nile: 176.



Is it not evident, then, that the Nile from the Victoria Nyanza to the Mediterranean should be under one rule? (Scott-Moncrieff 1895: 418)

Imperial strategists saw also the other side of such control. It could be used against Egypt if it ever became necessary. As a plan it had been discussed for a decade. Samuel Baker, the discoverer, was very clear. Already, in 1884, he wrote in *The Times*:

The Arabs have drunk at these wells for thousands of years. Erect a fort so as to command the wells, and the Arabs are at your mercy. No water. No Arabs. You have all the frontiers you need in the White Nile.

Cromer had repeated similar arguments. In the early 1890s, the later Lord Lugard wrote: 'Egypt is indebted for her summer supply of water to the Victoria lake, and a dam built across the river at its exit from the lake would deprive Egypt of this' (Lugard 1893: II, 584). And further: 'The occupation of so distant a point as Uganda would be a fair and just claim to render valid our influence over the Nile basin beyond' (Lugard 1893: II, 560). Finally, he quoted Lord Rosebery, who had said that Uganda commanded 'probably the key to Africa' (Lugard 1893: II, 584).

THE RIVER WAR

In 1894 the government in London took formal and military control over these African lakes and declared a protectorate over Buganda. They thus ruled the northern part of the lake, where they considered the source of the White Nile to be, and where a dam could be erected. The same year they established a gauge to measure the Nile at the outlet of the lake, on the request of the British in Cairo, and Cromer and his water planners and hydropoliticians could continue working on plans for the entire Nile system and for plans in the Central African lakes region. The geopolitical relation between Uganda and Egypt was thus formally established, upheld and formed by the Nile water system.

The physical character of the Nile and the ambitions for Nile control (both in its engineering and political dimensions; they both had their own geopolitical implications), also made the destiny of the Sudan. The grandiose plans for damming and utilizing the big central-African lakes was part of a long-term plan aiming at increasing the summer water in Egypt, and it was also a far-sighted strategy giving London control over Egypt's lifeline. To implement any of these strategies would be impossible as long as the Sudan was still under the rule of the Mahdists. Garstin and Willcocks knew very well already that the White Nile lost huge amounts of waters on its way through the swamps in Southern Sudan.¹⁶ Therefore, by 1899 they had formulated a concrete project to bypass it to increase the water arriving

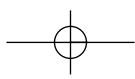
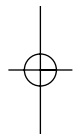
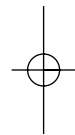




Figure 5. Sudanese warriors with swords and war drum, taken in 1896 by F. Gregson. Sudan Archive, Durham.

in Egypt (see Figure 4, page 90). No administration in Cairo would ever consider regulating Lake Victoria, a lake roughly the size of Scotland, without improving the Nile's water transport capacity in Southern Sudan due to the river's natural water losses there, and without controlling the territory between the dams and the dry lands in Egypt. To implement any of these strategies would be impossible as long as the Sudan was still under the rule of the Mahdists

Britain's European rivals on the African continent, especially France, had long demonstrated that they understood the geopolitical nature of the Nile and the vulnerability of Britain's position at Suez if threatened from upstream. For the British government the French military activities on the Upper Nile therefore served two interests. Firstly, by bringing the story about the French invading the Nile valley from West Africa to the front page of British newspapers they successfully stirred up British opinion in favour of the river war. Secondly, by talking publicly in Cairo of the French threat to the Nile, the British engineered political ammunition useful for convincing the Egyptians to pay for the war and to provide all the soldiers necessary for the military campaign. For economic and political reasons they wanted Egyptian and not British troops to do most of the fighting. Their aim was that the Egyptian Treasury and not the British Treasury should pay the cost of the military campaign. To achieve this aim they



portrayed the river war as a war in defence of Egypt's historic rights against other European powers. They found a perfect scapegoat in the infamous Captain Marchand. When he and his few men planted the French flag on the shores of the White Nile at Fashoda Britain could strongly and convincingly portray their occupation of the Sudan as a move to defend Egypt's historical right to the Nile basin.

Two years after London had taken military and political control over the headwaters of the White Nile, London started what the then war correspondent Winston Churchill called the 'River War'.¹⁷ Cromer gave the go-ahead for the troops under Kitchener's leadership to march upstream and into the Sudan in 1896. When the French flag went down at Fashoda and the miserable 'force' of Marchand was forced to leave the Nile basin, Kitchener therefore, in line with decisions of Her Majesty's Government, hailed not only the British but also the Egyptian flag on the shores of the Upper Nile. The river war was over. The Anglo-Egyptian Condominium Agreement of 1899 and the establishment of the administration of the Sudan, however, clearly reflected the fact that Britain wanted to be in charge, especially when it came to questions about the control of the Nile.

The men in charge of Egypt's water followed in the footsteps of the invading army. By April 1897, Garstin had already submitted his report on the Nile cataracts.¹⁸ So as to underline his hydropolitical motives behind the occupation, no sooner had the British moved into the Sudan than Cromer sent – in his own view – his most important official in Egypt on an expedition further up the Nile. In the wake of Kitchener's flotilla, Garstin studied the White Nile in 1899, the White Nile, Bahr al-Jabal, Bahr al-Zaraf and Bahr al-Ghazal in 1901, and again in 1904. In 1903 he was in Uganda, along the Semliki River, at Lake Albert and again at Bahr al-Jabal (Gleichen 1905: 280).

BRITISH RIVER EMPIRE

The British developed during the 1890s a strategy and a diplomatic and military tactic for establishing a River Empire on the Nile. They sent an army of 20,000 soldiers and a flotilla of gun boats upstream for a number of mixed reasons, but one of the most important was to control the River Nile. After fighting a war for two years in the deserts of the Sudan, crushing the Mahdist regime and killing thousands of Sudanese soldiers, and after taking firm military control of Lake Victoria in Uganda, even deciding to build a railway to it so as to tell the world and the Egyptians that the British planned to stay there, London had brought all the peoples living in the basin under their and Cromer's control. London's and Cromer's grasp of the Nile and the importance of the irrigation question made them fully aware of the fact that by placing their foot upstream they would also be able to control Egypt and secure their position at Suez, and that improved Nile control upstream

was necessary in order to give Egypt the summer water upon which the cotton economy and the political stability at Suez were dependent.

The British strategists had two aims in mind: on the one hand, they planned to develop the Nile so as to bolster cotton production, cotton exports to Lancaster, and the economy in Egypt, since that would create stability at Suez. On the other hand, and at the same time, London knew that if Britain took control of the Nile upstream of Egypt that would give them a leverage against Egyptian nationalists, if the need should arise, and such a control would also enable them to encourage the development of a Sudan independent from Egypt by using Nile waters also in the Sudan.

Cromer wrote in *Modern Egypt* that a central motive behind the occupation of the Sudan had been 'the effective control of the waters of the Nile from the Equatorial Lakes to the sea' (Cromer 1908: II, 110).

Full of confidence of the beneficial consequences of his river war, he stated:

When, eventually, the waters of the Nile, from the Lakes to the sea, are brought fully under control, it will be possible to boast that Man, in this case the Englishman, has turned the gifts of Nature to the best possible advantage. (Cromer, 1908: II, 461)

From another perspective, what took place can be seen as an example of the leaders of a modern water system subjugating the less modern parts of the same water system in the interests of the former. Suddenly, as compared to the long history of focus on the Nile in Egypt only, the physical layer of the water system was seen as one planning unit, and the Busoga at Lake Victoria and the Nuer in the Sobat area, the Annuak in the swamps and the Arabs in the bazaars, were all brought into the maelstrom of world politics because of the fact that they lived along the Nile and that the British had new, revolutionizing plans for the river. Control of the Nile was a geopolitical factor of great importance at the turn of the century, and it helped to make Britain the most powerful and successful empire in the history of the world. They controlled the Suez and they controlled the Nile, and no other European rival could compare themselves in Africa with Britain after the Nile campaigns.

THE COLLAPSE OF A RIVER EMPIRE

Fifty years later, in 1956, the role of the Nile in the British scheme of things was very different. In that year, Colonel Gamal Abdel Nasser's regime nationalized the Suez Canal, causing a devastating blow to British imperialism. In London they regarded this act as the most serious attack ever on Great Britain's vital strategic interests in the region, and this in a



situation where the Canal's economic and strategic importance had changed. Now the Suez Canal, according to Whitehall, was also Britain's and Europe's oil lifeline. The British and the Americans had, some few days before, withdrawn their offer to help finance Nasser's big project, the New Aswan High Dam. As a direct counter-move to this national insult, as it was described, Nasser decided to take full control of the Suez Canal.

What should the British do? They had their biggest military base anywhere in the world on the banks of the Canal. But short of going to war, what alternatives had they? They were still an important water power upstream in the Nile basin. They controlled Uganda and had a solid position in the Sudan. The Sudanese the same year, strongly encouraged by Britain, had voted for independence instead of union with Egypt, in opposition to those in the Sudan and Egypt that wanted unity between the two countries. In a situation when the Empire was falling apart this was some encouraging news, seen from London. After all, the Egyptian King had as late as 1948 declared himself the King of Nile Waters and the ruler of both Egypt and the Sudan. London had also managed to have the Owen Falls Dam built to develop Uganda. It was officially opened by Queen Elizabeth in 1954, in spite of opposition from Egyptian nationalists who feared British control of their lifeline in so distant a land.

One alternative to war that elements in the British government considered in the summer and autumn of 1956 was to exploit London's control over the Nile waters upstream. If it had not been done before, the Nile should now, Prime Minister Eden considered, be used as 'a pistol' against the head of independent Egypt. The geopolitical idea was clear and simply an echo of Samuel Baker's geopolitical speculations 70 years earlier: No wells. No Nasser.

NO WELLS. NO NASSER

London was, of course, considering ordinary economic pressure. But they realized that this would not achieve the settlement they wanted. Military action was thought possible, but it was regarded as a last resort. Besides these well-known policies, London discussed how to exploit British upstream control over Egypt's lifeline. It was tit for tat: London thought Nasser might strangle Britain by stopping oil shipments through what they described as their lifeline. The British Government for its part discussed plans to strangle Egypt by constricting Egypt's artery. The Nile, like the Canal, was an international waterway, it was argued. The plan was to meet an 'act of piracy', as Nasser's seizure of the Canal was described in the Foreign Office, with a plot that would soften Egypt's defiant attitude. They hoped their political and economic influence in the Upper Nile basin could be employed as a whip to force Nasser into submission. The geopolitical link established on the Nile between Egypt and Uganda in 1894, partly for



Figure 6. The British built a railway from Egypt across the desert to the banks of the Nile in the Sudan as part of their military campaign in 1896–98. Sudan Archive, Durham.

use in such an emergency situation for the Empire, could now perhaps be used in defence of British global interests.

The Nile offered three options to the British foreign policy makers:

1. they could try to reduce the Nile flow and thus cause economic problems in Egypt and political problems for Nasser,
2. they could place the Nile sharing issue among the basin states on the top of the regional agenda, and thus demonstrate to the Egyptian people and their leaders that the flow of waters in their lifeline depended on the goodwill of London and her colonies; or
3. London could renew the proposal of some kind of Nile Valley Authority as a way to impress upon the Egyptian Government that it was in its own interest to comply with international arrangements, also regarding the Suez Canal.

The Egyptians had feared British upstream control of their life artery for decades. This fear played an important role in the Egyptian revolution in 1919, and it had caused the Egyptians both to oppose the building of the Sennar dam in the Sudan in the 1920s, and to drag their feet over British and the Sudanese plans for the Lake Tana dam in the inter-war years. The infamous Allenby ultimatum in 1924, by which the British withdrew Nile

water without Egyptian consent on the Blue Nile in the Sudan, showed to all that Britain was quite capable and had also been willing to take the political advantage of her position upstream.

DIVERTING THE NILE IN UGANDA

About three weeks after Nasser's Alexandria speech, Sir Ivone Kirkpatrick, Permanent Secretary at the Foreign Office and a personal adviser to Eden during the Suez crisis,¹⁹ asked Denis Wright at the Foreign Office to study the question of diverting the Nile in Uganda.²⁰ Could such a water act force Egypt to climb down? Some few days later, however, Kirkpatrick stopped the investigations. He informed Wright that the enquiry was no longer necessary. Kirkpatrick had in the meantime met Morrice, the influential British Irrigation Adviser to the Sudan Government, and Kirkpatrick was now considering stronger cooperation in the use of Nile waters as an alternative. Morrice had argued in support of his and the Sudanese Government's alternative approach; a broad Nile Valley plan. He said that there was no method of diverting the waters of the Nile that could make an impression on Egypt in less than 15 or 20 years.²¹ The most effective way would therefore be to spend money building the Roseiris Dam in the Sudan,²² also because irrigation of the Sudan was 'bound to deprive Egypt of waters'. The argument was that the Egyptians were very sensitive about the whole water sharing situation.²³ Morrice also informed Kirkpatrick that Sudanese opinion was hardening against the Aswan Dam. Kirkpatrick, however, was more pessimistic; he replied that the Egyptians would send emissaries with bags of money to Khartoum and bribe their way through all opposition. Morrice argued that this 'operation bribery' would become more difficult than usual, mainly due to the real conflicting interests in Nile waters. Morrice favoured a long-term strategy, one that would involve British economic commitment to the development of the Sudan. Indirectly, this sign of possible cooperation between Britain and the Sudan would frighten the Egyptians so much that it would force them to climb down on the Suez Canal issue. The problem with this strategy, as seen by the government in London, was that it presupposed strong British financial support for irrigation projects in the Sudan, and with funds that the British did not have, bankrupt as they were.

But some members of the British colonial administration in Uganda were still pursuing the Nile-as-a-weapon road. On 2 September, C.G. Hawes, the British Hydrological Consultant to the Ugandan Government, produced a top secret memorandum, commissioned by Whitehall.²⁴ It concluded that since the White Nile supplied the greater part of the natural river in Egypt from January until May, and since the bulk of the White Nile flow comes from East Africa during these months, 'a reduction of 30 per cent (or more, perhaps) in the East African component would certainly cause much embarrassment to Egypt and probably would force a reduction in the areas

of rice and cotton crops sown'.²⁵ In the Sudan navigation would be difficult between Juba and Mongalla and possibly further to the north, and the pump schemes on the White Nile would be adversely affected due to increased water lifting, but the Gezira scheme and other projects on the Blue Nile would not be affected.²⁶

Watson, Head of the African Department in the Foreign Office, minuted:

The answer seems to be that considerable damage could be done to Egyptian crops. There is a view in the Ministry of Defence that the damage could be catastrophic: but this seems to require further examination before being accepted.²⁷

On 22 September the Colonial Secretary made a speech on BBC to test reactions in Egypt to such upstream activities. He said that the White Nile rose in Uganda, in British protected territory; that Britain had an agreement with Egypt, under which their engineers stationed at 'our Dam' could, within certain limits, decide how much water reached Egypt through 'our Owen Falls'. He concluded: 'What would happen to Egypt's vital interests if we were now to tear up this Agreement on the ground that it infringed' British 'sovereignty' over the Upper Nile?

London eagerly awaited Egyptian reactions. The Embassy in Cairo reported on 29 September that *Al Abram* brought the headline: 'Selwyn Lloyd threatens Egypt with cutting off Owen Dam waters'. On the first day in October the Foreign Office again requested Cairo to report on further Egyptian reactions. They were especially eager to know whether 'the suggestion that we might interfere with Nile waters inevitably increases support for Nasser or how far would there be a tendency to blame him for causing such dangers by his policies'.²⁸ On 26 September Anwar Sadat wrote in *Goumboria* that he pitied the Minister who could threaten to deprive Egypt of water if 'she refused to abandon her sovereign rights over an integral part of her territory', and he claimed that London was applying the laws of the jungle. Trevelyan, the British Ambassador in Cairo, advised that the policy was counter-productive seen from the point of view of British interests. The Egyptians would make the most of British brutality, insincerity and propensity for empty menaces. The Ambassador suggested instead that the Owen Falls agreement could best be used, not as a basis for threats, but as a demonstration of British readiness to forego exercise of absolute national sovereignty in the interest of civilized and sensible relations with neighbours.²⁹

TURNING THE TAP OFF OR A NILE VALLEY AUTHORITY

Warnings against the Foreign Office plot also came from the British in Khartoum. The Sudanese would not take the threats of such actions

seriously; they would think they were a bluff and merely propaganda. Nevertheless, they complained, it would raise a cry from the street against the Colonizers in Uganda and would strengthen Nasser's hand as the apostle of freedom in Africa.³⁰ The British there argued for a more cautious and positive long-term strategy. The Sudanese would not accept a solution to Nile-sharing issues based exclusively on their national interests regardless of the Egyptian viewpoint, the British reported. Britain should therefore not give the Sudanese the impression that the British were pressing them on the water issue further than where they wanted to go. The British in Khartoum thought that the Nile waters could in general be more profitably used in the Sudan than in Egypt, but to advocate this was considered politically unwise, since it was regarded as unreasonable by both the Sudanese and the Egyptians. The British in Khartoum again argued, as Morrice did, that London should increase its financial aid to the Sudan. Work on the Roseiris Dam could start if the Managil extension were to go forward at the accelerated rate the Sudanese Government were talking about.³¹ This policy would achieve what the British in Khartoum now thought to be most important: increase food production, create a fairer deal regarding the Nile waters, and strengthen the British position in the Sudan. Seen from London this plan had two main drawbacks: firstly it was too costly, and secondly it was not thought to carry sufficient and immediate 'punishing' power.

Concrete studies of the potential impact of Nile flow reductions continued in the Colonial Office, the Foreign Office and the Board of Trade. At the very end of September a 'Note on Egyptian Crops and water requirements' was produced by the Board of Trade. This note rejected Hawes' simplistic scenario and stated that it was:

difficult to forecast which crops would be affected by a reduction in White Nile water, because the Egyptians might choose to release water from the Aswan reservoir earlier than usual, in order to cover the shortfall from Jebel Aulia. The critical period would then be deferred until June/July, and an important factor would be the timing of the Blue Nile flood – its onset varies appreciably from year to year.³²

On 27 September the Sub-Committee on Economic Measures of the Middle East Official Committee discussed a note prepared by the Colonial Office concerning the possibility of action against Egypt by restricting the flow of the Nile, without taking a definite decision. In the beginning of October, Eden was still much interested in the 'particular question of denying the waters of the White Nile to Egypt'. Opinions varied, many argued in favour of caution, and what all agreed on was the need for more precise knowledge.

The discussions about this 'strangling' scheme also show that they came up against conflicting considerations related to their different upstream

interests. The Colonial Office gradually objected more to this 'deprivation scheme', on the basis of the effects it would have on Uganda, particularly in relation to hydroelectric power. The British representatives in Khartoum tended to put the interests of the Sudan high on the agenda, and were unwilling to perceive the Sudan only as a subordinate part in a strategy to maintain Britain's global status and Suez interests.

On 9 October the Colonial Office discussed the pros and cons, based on a new memorandum on Nile waters. It concluded that it was 'not a simple matter of turning the tap on and off'. On the contrary, once control had been established it would have to be continued for a substantial period in order to produce significant results.³³ The reason was the Nile's physical properties as a river system. Because of the natural regulation effect of Lake Victoria, Lake Albert and Lake Kyoga on the discharge fluctuations of the river, there is no great seasonal variation in the flow of the White Nile when it reaches the border with Sudan, at Nimule. Furthermore, of the 27 billion m³ of waters that annually (on average) reach Mongalla, it was estimated that about 16.5 billion m³ emerged from the Sudd to the north in a normal year. Moreover, it was noted that the water would take four months to reach Egypt from Owen Falls, and due to the time taken to drain off the balancing water in the Ugandan lakes downstream (Lake Victoria contributes about 20 billion m³, Lake Albert about 4 billion m³, and the seasonal torrents between Nimule and Mongalla add 3 billion m³), any reduction in the flow at Owen Falls would not have an appreciable effect at Aswan for about 16 months on average, depending on rainfall in East Africa.³⁴ The note concluded that the effects in Egypt could be serious, but that the consequences would be far from immediate.

The available options were framed by earlier British modifications of the river system, the conflicting interests of the British in the different downstream states, and the growing multifunctionality of the use of the river in Uganda. The note went on to analyse the consequences of a reduction of the flow at Owen Falls for Uganda. It was argued that passing sufficient water through the turbines at Owen Falls to supply electricity to the most densely populated parts of Uganda was essential for the new textile factory at Jinja, the smelting at Jinja of copper from the new mines in Western Uganda and the planned electrification of the western districts of Kenya. A reduction of the flow would also cause the water level of Lake Victoria to rise, which would result in flooding in some of the colonial areas Britain controlled in, especially, Uganda and Kenya. Shipping services would be hampered or even suspended if port facilities became unusable. To lower the level of the Nile below Owen Falls would disrupt navigation both on the Nile, the Victoria Nile and on Lake Albert. In addition, it was assessed, navigation would probably become impracticable on the Albert Nile, and this in a situation where the Albert Nile played an important part in the transport of the cotton crop from the West Nile District of Uganda, and also some part in the modest transport to and from the Southern

Sudan. Yet perhaps even more important, the Colonial Office argued in a top secret note that the political repercussions in the East African territories would be considerable and dangerous for British prestige and position. They also expected opposition from vocal groups in their colonies, and that they would react sharply to the use by the United Kingdom Government of an African river to bring pressure on Egypt. This opposition would be intensified by any economic distress arising from interference with the flow of the Nile.³⁵

In late October a new Foreign Office memo was produced: 'The effect on the Sudan and Egypt of restriction of the discharge at Owen Falls'. It argued that the economic consequences for the Sudan would be substantial; especially on the hundreds of cotton plantations between Kosti and the Jebel Auliyya Dam. In this part of the Sudan the British had helped to develop a thriving irrigation economy. These fields depended for irrigation upon water pumped into canals from the river; the pumps in turn depended on a high water level, which was normally artificially maintained until February by the Jebel Auliyya reservoir. If the Egyptians, who according to agreement now operated the reservoir, decided to empty the reservoir early to postpone the effect of the reduced flow on their own economy, the effect would in the Sudan be seriously aggravated. It was considered most important that some of the biggest private schemes were owned by Sayed Abdel Rahman el Mahdi, the main British ally in the Sudan, who was already in a difficult financial situation. The political effects in the Sudan could, it was concluded, only be bad, if London did try to reduce the water flow. Regarding Egypt, the memo refuted Hawes' assessments, and stated that, in a normal year, restrictions at Owen Falls consonant with Uganda's planned requirements for electric power would have a very slight effect on Egyptian agriculture. Given a very low year or a very late Blue Nile flood, or both, the 'Egyptians might be forced to make a significant but by no means disastrous reduction in the areas of crops sown'.³⁶

Therefore, the discussions among foreign policy bureaucrats and some consultants to the Ugandan government about using the Nile as a direct weapon against Nasser in the autumn of 1956 were based on false assumptions. Those who suggested that the Nile could be used in this way underestimated the conflicting demands and interests of the other Nile basin states under their influence. An upstream state will always have conflicting interests. The complexity of the water system they had created had made them geopolitically impotent, and Nasser less vulnerable to upstream pressure. Moreover, the hydrological character of the Nile could not be manipulated so as to fit their 'punishment' scheme.

At dusk on 31 October French and British planes began bombing Egyptian positions, under the illusion that the short-term use of force could achieve what long-term manipulation of water could not. But the action turned into international political defeat and the Nile weapon as a threat

became less useful than ever. A few days later Selwyn Lloyd announced to the House of Commons that the United Kingdom would withdraw from the Canal Zone.³⁷

Also after their crushing defeat London regarded the Nile as still having potentials as a diplomatic stick, although in a less dramatic way. They thought of trying to organize the other Nile states so as to put a more legally acceptable pressure on Egypt. One reason that this was considered a wise policy was that it could exploit what in London was seen as an arrogant Egyptian attitude; treating the river as if it only was an Egyptian river, and as if Egypt had both historic and moral rights to most of its waters. An article in the *Egyptian Gazette* by Dr Abdul Aziz Ahmed, technical adviser to the Ministry of Public Works (Tvedt 2004a: 311–12), dismissed the aspirations of Ethiopia and the Sudan and concluded that the Nile Waters Agreement of 1929 'is flexible enough to deal with future eventualities as it did in the past'. The article emphasized that the problem was 'not an international one'. The Nile flow regime limits, it said, the use of the waters to the two countries only. This article damaged Egypt's position in the region, and nobody at that time knew that it helped to lay the ground for the 'Agreement for the Full Utilization' of the Nile, signed only by Sudan and Egypt in 1959. The Foreign Office copied the article for their embassies in Addis Ababa and Khartoum, for further public dissemination. The Embassy in Ethiopia reported that they 'took some pleasure' in giving copies of the article to the advisers of the Ethiopian Government.³⁸ They added that if the Egyptian Government was 'stupid enough to put out this imperialist claptrap' they would stir the Ethiopian Government 'into replying on equally extreme and un-cooperative lines.'

Britain instead opted for a new and broad Nile Valley Plan and a new Nile Valley Authority. Both political considerations and hydrological facts now made Nile cooperation the best strategy. In this way they tried to establish what, if it had been developed, might have been seen as the forerunner of the present Nile Basin Initiative.

CONCLUSION

Most observers will agree that the discourse on the relationship between water, conflict and cooperation has been marked by a history where the dominant ideas about these relationships have shifted very fast, reflecting political-ideological fads and fashions in the academic and political world. The above rather detailed case studies from the same river may show that the issue is much more complex, and that simple either-or models are not very fruitful for understanding actual developments or histories, and underlines the need for analysing in detail the development of each and every trans-boundary river basin to be able to grasp the actors' actions and ambitions and the frames of possibilities and constraints they operate



within.

The chapter also presents a story of what can be called 'old' geopolitics with a water system and a river system in focus. The growing multifunctionality of such large river basins can also indicate that new and old geopolitics will coexist in political games – over the control of the Nile – and most likely this will also be the case in other big river basins. The above stories can show that there is not necessarily a single casual relation between a geographical structure, or a water system, and an actor-specific geopolitical strategy. The British strategists' conception of the Nile should be explained as changing according to London's and other British actors' political aims and according to whether they conceived of themselves as an upstream or a downstream power, or as a guardian of the 'common interests' of optimal river utilization. From one fundamental point of view it is possible to argue that if one only assesses the physical layer of the Nile, the river, because of its length and relatively unchanged character in this time period, presented more or less identical possibilities and constraints as a geopolitical instrument and structure during the British era in the Nile basin. But since human modifications of this river (as of any other river) did not only reflect the realization of certain social possibilities but also created new constraints and possibilities for human actions, the Nile's potential as a weapon changed. Since river discharges will always tend to change with important economic and political implications, and the rivers' water can always be controlled in new ways to serve new interests, rivers as geopolitical weapons or instruments are highly instrumental in framing political ambitions and actions. But for all these same reasons they cannot be reduced to a deterministic factor explaining in itself specific geopolitical acts.

NOTES

- 1 See Harir 1994.
- 2 For an overview of sources and books that this article is based upon, see Tvedt 2004a. For an overview of general literature on the Nile, see Tvedt 2004b.
- 3 See for example *The Times* for the years 1893 and 1894.
- 4 Willcocks 1894: 5. This was a government publication.
- 5 Willcocks 1893. This was written, and circulated among the government officials.
- 6 The direct gain to the state was said to be from sale of reclaimed lands and the increase of the annual revenue derived from them. Indirect gain to the state, but direct gain to the country resulted from increased value of agricultural produce, the rise in the price of land and in the land rents, increase in custom revenue, and so on.
- 7 Cromer to Earl of Kimberley, 15 November 1894, in Further Correspondence respecting the Affairs of Egypt, January to June 1894. FO/407/126.

- 8 See for example Mr Rodd to the Earl of Kimberley 3 August 1894, referring to the protest of the London Society of Antiquarians against the proposed Nile reservoir. In Further Correspondence respecting the Affairs of Egypt, FO/407/127.
- 9 Memorandum by Sir William Garstin, Inclosure 1 in No. 30, FO/407/144.
- 10 Cromer to Salisbury, 21 October 1891, FFO 141/284.
- 11 Ibid.
- 12 Cromer to Salisbury, 14 November 1891, FO 141/283.
- 13 For a description of the role of water measuring stations in the Sudan for rational water planning in Egypt before 1885, see Chelu 1891: 2–38.
- 14 Cromer to Salisbury, 13 March 1890, FO 141/276/84.
- 15 Cromer to Salisbury, 15 March 1890, FO 403/99.
- 16 Willcocks 1894: Appendix III, 8. He quotes (in Appendix III, 4) among others Linant Pasha's estimates suggesting that the White Nile carried twice as much water as the Blue Nile during the crucial summer season.
- 17 E. Lombardini published *Saggio idrolico sur Nilo* (Milano 1864) and A. Chelu put out *Le Nil, Le Soudan, l'Egypte* (Paris 1891). See also Willcocks 1894: Appendix III, 10–11. Mason-Bey 1881 discussed how a removal of the sudd could increase the water flow to Egypt.
- 18 See Winston Churchill's two-volume report from this campaign, aptly called 'The River War' (Churchill 1933).
- 19 Report by Mr Garstin on the Province of Dongola, Inclosure in No. 12, further correspondence respecting the affairs of Egypt, April to June 1897, FO/407/143.
- 20 Kyle calls him Eden's 'draftsman' during the Suez crisis (Kyle 1991: 88).
- 21 Denis Wright, Assistant Under-Secretary at the Foreign Office, later Ambassador to Ethiopia and Iran.
- 22 Kirkpatrick to Wright, 16 August 1956, FO 371/119063.
- 23 Kirkpatrick to Watson, 16 August 1956, FO 371/119063.
- 24 Ibid.
- 25 Hawes lived in South Brent in England, at the time. The Foreign Office could therefore approach him through the Colonial Office without involving the 'Men on the Spot', who were kept in the dark about these plans and these commissioned studies.
- 26 C. G. Hawes, The effect of restricting the outflow of Lake Victoria on conditions in Egypt and the Sudan, 2 September 1956, FO 371/119064.
- 27 Ibid.
- 28 Foreign Office minute, J. A. H. Watson, 18 September 1956, FO 371/119063.
- 29 Foreign Office to Embassy, Cairo, 1 October 1956, FO 371/119063.
- 30 Trevelyan to Foreign Office, 3 October 1956, FO 371/119063.
- 31 Sir E. Chapman Andrews, Khartoum to Foreign Office, 5 October 1956, FO 371/119063.
- 32 Chapman-Andrews, Khartoum to Watson, African Department, Foreign Office, 4 October 1956, FO 371/119064. The Managil extension of the Gezira scheme had been planned earlier in 1956 to be implemented in four phases. When completed it would roughly double current production. The cost of the dam was estimated at about £20 million, and it was proposed that construction could take place between 1957 and 1965. It was to provide more water for Managil and also for land in the Kenana region. It would also provide for electric power and more pump schemes.

- 33 Board of Trade, 'Note on Egyptian crops and water requirements', September 1956, FO 371/119063.
- 34 A. N. Galsworthy, Colonial Office to Wright, Foreign Office, 20 December 1956, FO 371/119066.
- 35 Archie Ross, Use of Owen Falls dam to deny water to Egypt, 14 November 1956, FO 371/119065.
- 36 Foreign Office minute, Ramsden, 4 October 1956, FO 371/119065.
- 37 See Some implications for the East African territories of a decision to restrict the flow of the White Nile (top secret), 9 October 1956, FO 371/119064.
- 38 As early as the 1920s the British hydrologists had discovered that there was latency of four to five months between peak levels on Lake Victoria and Lake Albert. It was estimated that the extensive swamps which the Victoria Nile runs through while joining the two lakes caused this long time lag (see Newhouse 1939: 25).
- 39 Some implications for the East African territories of a decision to restrict the flow of the White Nile (top secret), 9 October 1956, FO 371/119064.
- 40 Phillips, Foreign Office memo, The effect on the Sudan and Egypt of restriction of the discharge at Owen Falls, 29 October 1956, FO 371/119065.
- 41 Draft statement for the Foreign Secretary, 30 November 1956, CAB 128/30.
- 42 Chancery, Addis Ababa, to Chancery, British Embassy, Cairo, 31 August 1956, FO 371/119063.

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