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13
14
15 It is very likely that no society has existed without water laws of some sort.
16 The fundamental reason for this unique situation is that water is the only
17 truly universal resource that all societies at all times have had to control,
18 relate to and often share. Since water, at the same time, always runs
19 through the societies it helps to create and sustain in different ways, and
20 these societies, when exploiting such a resource, enter into particular
21 relationship with their water systems, different water law traditions have
22 developed in different localities, regions and river basins. Comparative
23 studies of water law in this perspective are an undeveloped field.

24 In order to understand the great variety in water law systems and their
25 characteristics, it is necessary to analyse the water systems as well as the
26 particular histories of the regions in which these legal traditions developed.
27 It is crucial to understand that for a long time water law developed in a
28 highly local manner that reflected the history, geography and political
29 systems of the areas concerned. It is also important to understand how
30 these contexts of time and specific localities have shaped the legal
31 discourse. At the same time, it is striking how the different water law
32 systems of the world exhibit certain recurring patterns. This is partly the
33 result of the diffusion or migration of ideas about water management and
34 water law, but it also reflects the fact that water is not only particular; it
35 is also always universal, in the sense that water is the same everywhere:
36 constantly in flux, always seeking a lower point, and ultimately escaping
37 efforts to control it. This chapter will reconstruct the historical and
38 geographical context of the Nile Waters Agreement of 1929 as a case in
39 point.¹ One of the first places where water law developed was along the
40 River Nile, during the time of the pharaohs. The discussions in this part will
41 not focus on this early period, however, but on the development of Nile
42 agreements in the modern epoch, especially during the colonial period
43 when the British Empire was still the a dominant power in the region.

44 In addition to presenting a historical background to the Nile Waters
45 Agreement of 1929 – an agreement that still is at the centre of the current

46 debate among the Nile Basin states on how the Nile waters should be
47 managed and allocated – the chapter will discuss how river hydrology and
48 river physics impacted the agreement in ways that often tend to be
49 overlooked in legal discourses on river agreements and water laws. Due to
50 the fact that the river systems have helped to create different man–
51 environment relations and development patterns along long stretches of a
52 particular river (in this case the Nile), the legality or continued validity of
53 agreements concluded at a certain point in time will certainly be questioned
54 somewhere down the timeline. Any accord on the use and allocation of large
55 rivers will, of course, reflect existing power hierarchies in the basin and
56 dominant conceptions of the river system. The problem is that areas and
57 states along a major river basin often develop unequally, and therefore
58 develop uneven patterns of water demands and consumption; this
59 subsequently results in the acquisition and formulation of different
60 conceptions of entitlements and the attributes of the river itself.

61 Long and complex international river systems will, due to different
62 ecosystems or river landscapes, encourage different types of social and
63 economic developments along the rivers' banks and tributaries, and hence
64 influence or frame localized use of water over time; there is often a
65 structural relationship between a particular river basin, its hydrology and
66 geography on the one hand, and the patterns of 'established uses and
67 rights' to the water in the same river basin on the other. In this context too,
68 the Nile shall be a case in point.

69 Lastly, the Nile Waters Agreement can also demonstrate that cooperation
70 over international river basins will, contrary to common belief, not always
71 erode state sovereignty but might strengthen it, because it provides an
72 excellent arena for exercising and acquiring state authority. A study of the
73 1929 Agreement may throw new light on the somewhat ahistorical legal
74 debate about the relationship between sovereignty and water law.

77 THE 1929 EXCHANGE OF NOTES

79 The Nile Waters Agreement, consisting of the exchange of notes in May
80 1929 between the British high commissioner in Egypt, Lord Lloyd, and the
81 Egyptian government, came to have a profound impact not only on the
82 Anglo–Egyptian relations and relations between Egypt and the Sudan, but
83 also on economic developments in Uganda, southern Sudan and, indirectly,
84 on Ethiopia up to the present day. Without doubt, it has been an important
85 moment in the history of Nile politics, international river basin manage-
86 ment in general and in the evolution of international watercourses law. As
87 an agreement on the use of international river waters for purposes other
88 than navigation, and particularly in presenting a detailed water allocations
89 regime between Egypt and Sudan, the treaty has been hailed as one of the
90 first of its kind in the world.

91 On 7 May 1929, in one of the letters exchanged with the Egyptian
 92 government, Lord Lloyd emphasized that Great Britain had committed
 93 itself to guaranteeing Egypt's future water supply. Lloyd wrote to the British
 94 government regarding the safeguarding of those rights as a 'fundamental
 95 principle' of British policy, which would be observed at 'all times and under
 96 all conditions'.² London also accepted the judicial principle that the first
 97 user (the word 'first' being interpreted in the historical rather than in the
 98 geographical sense) of waters of the stream, i.e. Egypt in this case, should
 99 have priority in the disposal of waters it had hitherto utilized. The Treaty
 100 made it possible for Egypt to build water control works necessary to itself in
 101 the Sudan and other upstream countries, block irrigation works that could
 102 harm the Nile discharge in Egypt, and reassert historical rights to waters of
 103 the River acquired through long use.

104 An intriguing aspect of the agreement was that the exchange of letters
 105 did not define water rights in quantitative terms. It was, however,
 106 accompanied by a technical report of the 1920 Nile Projects Commission,
 107 which has been interpreted as 4 million m³ of Nile waters for Egypt and 48
 108 billion m³ for Sudan each year.

109 The 1929 Nile Waters Agreement was a treaty between two consenting
 110 states who wished to regulate their relationship on certain matters; it
 111 bound those who signed it, as well as other states on 'whose behalf Great
 112 Britain assumed an undertaking' on the basis of its colonial position, i.e.
 113 the colonies of Sudan itself, Uganda, Kenya and Tanzania. Whatever
 114 regime the agreement formed, it applied only to parties to the Treaty, and
 115 no others. In legal sense, it can be described as a 'law' between those
 116 parties, although it does not constitute a corpus of 'public international
 117 law' as such.

118 What were the historical background and the hydrological context of the
 119 agreement on Nile waters, and why is it fruitful to analyse both the
 120 particular geopolitical situation and character of the geographical structure
 121 of the resource that had been the subject of the Agreement?
 122
 123

124 THE COLLAPSE OF A NILE BASIN REGIME UNDER ONE RULE

125
 126 By the late 1920s the pioneers of British basin-wide Nile policies, Lord
 127 Cromer and William Garstin, Lord Kitchener and William Willcocks, Sir
 128 Wingate and Murdock MacDonald, had all left the scene, and the heydays of
 129 British Nile control were already a thing of the past. In 1908, Cromer had
 130 confidently declared that 'the Englishman' had taken the entire Nile in hand.
 131 For the first and only time in the Nile's history, one might talk of a 'King of
 132 the Nile waters' – Lord Cromer. At the time, his and his government's plans
 133 for taming the entire river were very ambitious in comparison with most
 134 other river systems in the world, and all the projected dams and water
 135 infrastructure installations were designed to serve the overall interests of one

136 imperial authority.³ Ten years later, however, British hydro-political grip on
137 the Nile River had loosened.

138 London's policy had always aimed at stability in Egypt and development
139 of the country's irrigation infrastructure, especially related to cotton
140 production during the summer time, or the Nile's low season. Their idea
141 was again formulated by Lord Cromer: it was Nile control that should
142 convince the 'Oriental Mind' that it should accept the West and Britain's
143 leadership. London's main Nile strategy was that the White Nile, which
144 provided almost all of the water during the summer period, was the most
145 important river at the time and should be used by Egypt. The Blue Nile⁴
146 could not be dammed and the flood water could not be stored for the
147 summer season due to the high concentration of silt in the flood water. For
148 this reason, construction of the first Aswan Dam, completed in 1902, and
149 the crowning achievement of the Cromer–Garstin regime was built only for
150 seasonal storage of the relatively silt-free water from the tail of the flood.
151 During winter seasons, Sudan's Gezira area on the island between the Blue
152 and White Niles would take water by gravity from the Blue Nile after
153 building the Sennar Dam; at this time of the year, Egypt did not need waters
154 from the Blue Nile. These hydrological and topographical facts shaped the
155 foundation of British Nile policies.

156 The Egyptian revolution of 1919 set in motion political forces that tore
157 apart the Imperial Nile strategy, but did not change London's analysis of the
158 role of the River and the relative importance of its two tributaries for Great
159 Britain's overall policy objectives. The political issue of who should control
160 the use of the entire river system came to play an important but neglected
161 role in the struggle for Egyptian independence. The Nile question became
162 part of the nationalist political agenda. The revolution in 1919 and the
163 British declaration of Egyptian independence in 1922 suddenly changed the
164 political landscape and the context of British Nile planning.

165 Despite the changes, Britain's main strategic aims in the Nile valley still
166 remained the same: to secure its political and military position at the Suez
167 and to increase the export of long-staple cotton to Lancashire. Achievement
168 of the two objectives was seen as being dependent upon the same factor –
169 increased exploitation and control of the Nile waters. The strategy that had
170 been laid down so forcefully at the beginning of the century, however,
171 could no longer be implemented in the 1920s.

172 Egypt had won formal independence in 1922, but it had a vulnerable
173 geopolitical position as a downstream state, a concern disclosed and
174 continually articulated by the nationalist elite. The Egyptian nationalists
175 sought control of the Nile and regarded Sudan as an integral part of Egypt,
176 but gradually they realized that Britain's policy in the Sudan had effectively
177 weakened Egypt's position there. Britain had 'lost' Egypt, but was still a
178 strong upstream power on the Nile since it had occupied the whole stretch
179 of the river from Aswan to the Great Lakes in Uganda, and worked on
180 strengthening its position on the Blue Nile in Ethiopia. Britain was looking

181 for a means of maintaining its influence and military presence in a country
 182 that had opted for independence and where the opposition to Britain was
 183 very strong. What options did London have?
 184

185 **BRITAIN'S USE OF THE NILE AS A GEOPOLITICAL INSTRUMENT**

186 London had both the financial and technological capacity to control, or
 187 threaten to control, the water discharges of Egypt's real lifeline because of
 188 its hold on many of the upstream countries. The following quote from
 189 archives of the British Foreign Office is an example of one of the many
 190 secret documents outlining identical visions of Nile control as a geopolitical
 191 instrument:
 192
 193
 194

195 His Majesty's Government are indeed in the position of being able to threaten
 196 Egypt with the reduction of her water supply, and this is sufficient in itself to
 197 create a feeling of anxiety and resentment in Egyptians; on the other hand His
 198 Majesty's Government cannot offer to increase the water supply of Egypt unless
 199 the construction of the Tsana reservoir is undertaken. Once this work is
 200 completed, they will be able, without in any way abandoning their power to
 201 damage Egypt by reducing the supply, to tranquillise Egyptian anxiety by
 202 offering to increase that supply to a very great extent.⁵
 203

204 The analysis was based upon the Egyptian waterscape: there was almost
 205 no rain in Egypt. In the southern parts of the country, precipitation
 206 could be less than 10 mm per year, and in Cairo the yearly average was
 207 only 18 mm. Nearly the entire Egyptian population lived on the banks of
 208 the River, and all economic activity depended upon it. London's aims at
 209 the time concentrated on developing irrigation and cotton production in
 210 the Sudan and on encouraging a development in the Sudan that
 211 weakened Egypt's position and strengthened the hand of London. Great
 212 Britain regarded control of the Sudan as a means to control Egypt and
 213 the Suez. As was written in one secret memoranda, 'The power which
 214 holds the Soudan has Egypt at its mercy, and through Egypt can
 215 dominate the Suez Canal'.⁶

216 Britain wanted to use its control of the Nile as a means to develop a
 217 distinct Sudanese identity *vis-à-vis* Egypt. Hence, water withdrawals in the
 218 Sudan (and plans for the Lake Tana Reservoir) became keystones in
 219 London's efforts to maintain its regional political influence. Developments
 220 in long-staple cotton production in Egypt and changes in the international
 221 cotton market made the Gezira scheme more important to British
 222 industries and to Sudanese finances. Since the river runs through Sudan
 223 and it is possible, topographically and geologically, to build large dams on
 224 the river and divert the waters into the Sudanese desert, London
 225 understood the immense political and economic potentials of Nile control.

THE ALLENBY ULTIMATUM OF 1924

The so-called Allenby ultimatum should be accorded appropriate emphasis in any broad analysis of the 1929 Agreement and its causes. In 1925, with great fanfare but with little success, the British exploited their upstream control of the Nile as a weapon against Egyptian nationalists. In historical annals, this move has been called the Allenby ultimatum, named after the British leader of Egypt and the Sudan at the time.

While the British work on the Sennar Dam and on the Gezira scheme in Sudan went on, the radicalization of the Egyptian people continued. The enforced compromise on the upper limit of how much water the new Gezira scheme should be allowed to take did not much help to weaken the nationalist movement in Egypt, while at the same time the cotton industry both in Sudan and Great Britain found it a highly unwelcome strait jacket. Since 1912, the latter had publicly referred to the scheme's enormous potential, which became obvious to everybody when work started. The higher cost of the project also encouraged higher productivity goals. Water and cotton were still in short supply, with consequences for corporate profits and the local population. For example, the government had instructed that all the cotton should be sold abroad; local women were forbidden even to hand-spun cotton. If a man on a pumping station kept back a bit of cotton for spinning, it was regarded as stealing and punishable by prison. According to a British administrator, Sudanese women said: 'Isn't it our land? Why shouldn't we women have a bit of cotton? Truly this government is hard on women.'⁷ The problem was how to get more water to the land.

Meanwhile, in Egypt the upper classes increasingly feared that the agitation of the nationalists had unleashed a political attitude among the population that could threaten their own position. To dampen this radicalization, former allies of the nationalist leader, Saad Zaghlul Pasha, were now willing to work with the British. The Liberal Constitutionalists' Party was formed and a constitution was promulgated. In the intervening time the Makwar Dam was being built, which was then regarded in Egypt as a *fait accompli*. The Wafd won a sweeping victory in the elections, and in January 1924 Zaghlul became prime minister. During that year, a number of British officials and Egyptian collaborationists were murdered by hard-line nationalists. Then, on November 19, Lee Stack, governor-general of Sudan and British commander-in-chief of the Egyptian Army, was assassinated. The assassination was a blow to the Egyptians, who wanted to normalize relations with Britain and a debacle to British security in the region; however, it also created an opportunity for tough action.

His Majesty's government, Allenby and the Sudan government described the murder not simply as the work of extremists, but rather as the natural outcome of a campaign of hatred mounted by Zaghlul and other mainstream nationalists. A situation had emerged in which the British thought they, with

271 a cloth of legitimacy, could clamp down harshly on Egyptian opposition, with
 272 some support at home and abroad. And so they did – immediately and
 273 severely. First, they implemented the scheme for the elimination of Egyptian
 274 personnel in Sudan, which had been secretly drawn up in 1920⁸ hoping to
 275 remove Egypt as a partner in the running of Sudan.⁹

276 What shocked the Egyptians most, however, was the issuance of the Nile
 277 ultimatum on 22 November 1924. As a direct and explicit reaction to the
 278 assassination of Stack, the British representative in Egypt, Lord Allenby, on
 279 the day of Stack's funeral, went to Zaghul's official residence making a
 280 point of not saluting on entering or leaving the residence. While trumpeters
 281 played the British national hymn outside, he read out loud his famous Nile
 282 notice:.

283

284 ...the Sudan Government will increase the area to be irrigated in the Gezira from
 285 300,000 feddans to an unlimited figure as need may require.

286

287 What the Egyptians feared had come to pass.

288 The British reactivated their downstream complex. London gave
 289 Egyptians a demonstration in waterpower that would never be forgotten,
 290 and which affected the way British Nile policies were later conceived and
 291 interpreted. The area of cotton farming in the Gezira was to be increased
 292 without asking Egypt (they did not threaten unlimited irrigation in Sudan,
 293 only in Gezira), thus annulling the commitment made in 1920. Allenby
 294 later wrote that his intentions were to impress upon Egypt 'the extent of a
 295 Power which the country, to its own detriment and ours, had been too
 296 long purposely taught to despise'.¹⁰ This extent of power was the
 297 authority to dam the Nile, and he knew that would strike at the very
 298 centre of the Egyptian downstream complex. Now the time had come to
 299 show the fist, he thought.

300 A number of important political changes followed. Zaghul did not accept
 301 Allenby's demands and resigned the day after. Ahmad Zivar Pasha formed a
 302 new government, which accepted the British demands unconditionally. At
 303 the same time as they demonstrated the power of the Nile weapon, they
 304 attacked other Egyptian positions in Sudan. All Egyptian Army units were
 305 expelled from Sudan, and a new Sudanese Defence Force separate from the
 306 Egyptian Army was established. The Sudanese battalion that mutinied in
 307 support of the Egyptians was annihilated. On 27 and 28 November 1924,
 308 more than 20 people were killed. Four officers who deserted gave
 309 themselves up, and three were sentenced to death and shot by a firing
 310 squad. The ideas of the League of Sudanese Union – which towards the
 311 end of 1922 had sent a letter to Prince Umar Tusun of Egypt in which it
 312 was stated that in Sudan there was a movement 'the purpose of which is to
 313 support the Egyptian people', expressed its belief that 'the Sudan should
 314 never be separated from Egypt' and exalted the cause of the 'the Nile
 315 Valley from Alexandria to Lake Albert' – was clamped down on.¹¹

316 In Britain, politicians publicly disagreed about this use of the Nile power.
 317 Ramsey MacDonald, who just had stepped down as the Labour prime
 318 minister and foreign secretary (January–November 1924), criticized the
 319 ultimatum. He regretted that Britain had now told the Egyptian cultivator
 320 that they ‘hold him in the hollow of our hands’. As a prime minister, Ramsey
 321 MacDonald had, on 10 July 1924, delivered a speech in the House of
 322 Commons:

323
 324 I give my word and the Government guarantee [...] that we are prepared to
 325 come to an agreement with Egypt on this subject which Egypt itself will accept
 326 as satisfactory. That agreement will be carried out by a proper organisation as to
 327 control (this did not materialize), and so on, and under it, all the needs of Egypt
 328 will be adequately satisfied. The Egyptian cultivator may rest perfectly content
 329 that, as the result of the agreement which we are prepared to make, the
 330 independence of the Sudan will not mean that he is going to enjoy a single pint
 331 of water less than if he had it and was himself working it.¹²
 332

333 The Egyptians had been frightened, MacDonald admitted, but he suggested
 334 another course more in line with what he called British traditions. They
 335 should not ‘take a single gallon of water required for Egypt’, but should
 336 instead get a joint ‘board set up to deal with the whole problem of the Nile
 337 water in the Sudan and Egypt [...] and you and we will cooperate to
 338 produce peace, happiness and prosperity’.¹³
 339

340 ***Change in British tactics and the 1929 Agreement***

341
 342 In the latter half of the 1920s, the British government worked hard to
 343 improve the Empire’s public image in Egypt; it aimed at establishing a
 344 system for Nile development that was realistic and expansive, and that was
 345 adapted to the new political–strategic situation. London clearly realized that
 346 there would be no chance of negotiating a new overall treaty with Egypt on
 347 outstanding issues like the Suez, unless the political damage of the Nile
 348 ultimatum was repaired. British strategists had, however, reassessed Cromer
 349 and Garstin’s policy, now described as being ‘too closely associated with
 350 exclusive Egyptian control’ of the Nile and partly blamed it for reassuring
 351 what was called the ‘monopolistic attitude’ so deeply engrained in Egyptian
 352 public opinion. London realized that having ‘lost’ Egypt as a protectorate, it
 353 could no longer implement the basin-wide plans of the past, but the Foreign
 354 Office in London tried to maintain the role previously occupied by the Nile
 355 regime of Lord Cromer and his close associate, the water planner William
 356 Garstin. Their aim was to continue as a kind of general command of the Nile
 357 development, but in a very different political atmosphere.

358 During this period, the Foreign Office in London regarded itself as the
 359 natural control centre and think-tank for utilization of the Nile. When
 360 Allenby had suggested that Great Britain might consider it expedient to

361 seek from the League of Nations a British mandate for the Nile and its
362 waters as distinct from any territorial question, this reflected the mood, but
363 it was a wholly unrealistic proposal. Sitting at their desks in Whitehall close
364 to the Thames, the policymakers and foreign policy bureaucrats in London
365 conceived of the Nile as a river in which Britain had both an interest and
366 a duty to control. In the 1920s they not only faced nationalists, kings,
367 emperors and rivalling European and American powers in the Nile valley,
368 but they also had to balance the interests of British companies, the Colonial
369 Office and public opinion at home and abroad. The very complex imperial,
370 political set-up did not make it easier: Britain had a high commissioner in
371 Egypt but the country was formally independent, although London had
372 reserved the Nile for itself; Sudan was ruled from the Foreign Office in
373 London, Uganda was under the Colonial Office in London, Kenya was about
374 to become a white settler state, Tanganyika was ruled by a British governor
375 and commander in chief of Britain under the Treaty of Versailles (1919) and
376 had received a League of Nations mandate to administer the territory. In
377 Ethiopia, finally, London had a British representative and the 1902
378 agreement with Emperor Menelik II dealing also with Nile utilization. In
379 Eritrea, Rwanda, Burundi and Congo, London had agreements with the
380 respective colonial powers guaranteeing that these powers would not build
381 dams on the Nile without British consent.

382 383 384 **THE NILE WATERS COMMISSION OF 1925**

385
386 To counter what the British described as Egypt's monopolistic attitude and
387 at the same time repair the damages caused by the Allenby ultimatum,
388 London came up with different initiatives that would enable it to maintain
389 its role as mater of the River. The Egyptian prime minister, Ziwar Ahmad
390 Pasha, who had unconditionally acceded to all British demands when
391 taking power after Zaghlul resigned, complained in 1925 that the Egyptian
392 government had always maintained that the development of irrigation in
393 Sudan must in no way be of such a nature as to damage irrigation in Egypt
394 or to prejudice future projects that were crucial to meeting the needs of the
395 country. He felt that 'this principle' had been fully admitted by His Britannic
396 Majesty's government in the past.¹⁴ In early 1925, he asked Allenby to
397 revoke the instructions in his Nile ultimatum, which had so infuriated and
398 shocked the Egyptian public. This gave London an opportunity to declare a
399 shift in policy.

400 Allenby replied the same day that the British government was disposed
401 to direct the Sudan government 'not to give effect' to the previous
402 instructions mentioned in his ultimatum.¹⁵ The British line was now to tell
403 Egyptians that only Great Britain could guarantee them the water they
404 needed, a guarantee less trustworthy after the Allenby ultimatum than
405 before, it is true, but carrying greater political weight, perhaps, since the

406 British had already proved its power upstream. London now wanted to be
407 seen as a kind of broker between the more aggressive Nile policy being
408 pursued by the Sudanese government – led by the British but with support
409 from the Sudanese who wanted to invest in profitable irrigation agriculture,
410 on the one hand, and Egypt, on the other. The British strategists now
411 aimed at convincing the Egyptian general public that Egypt would be
412 compensated for water taken at Sennar – and with London's help.

413 At the same time, it was strategically important to break down what
414 London called the 'monopolistic attitude' of Egyptians to the Nile waters.
415 Since the 1920s, they had been discussing whether to establish some kind
416 of Nile Board or Nile Commission which could bring more actors and more
417 countries onto the Nile scene. Cairo was sceptical, but after repeated
418 initiatives from London and in the aftermath of the Allenby ultimatum, a
419 Nile Water Commission was appointed in 1925. Officially, its purpose was to
420 examine and propose a basis on which irrigation in Sudan could be carried
421 out with full consideration of the interests of Egypt, and 'without detriment
422 to her natural and historic rights'.¹⁶ It should define, among other matters,
423 what the well-informed London *Times* described in its issue of 27 January
424 1925 as 'the vested rights of Egypt and of the Sudan'.

425 The aims of the Commission became far less ambitious due to Egyptian
426 opposition. Originally it had three members, but the chairman from the
427 Netherlands died in June 1925. The other two members were R. M.
428 MacGregor, the representative of the Sudanese government, and 'Abd al-
429 Hamid Pasha Sulayman, the Egyptian representative. In February 1926, they
430 produced a final report.¹⁷

431 The Commission, weak though it represented an important break with
432 the past, and its report reflected the new political map in parts of the Basin.
433 It can thus serve as an illustration of the political pedagogy of water reports
434 in transboundary or international river basins. For the first time in the
435 River's long history, a representative of an upstream state (the Sudan
436 government) discussed Nile waters on an equal footing with Egypt. Sudan
437 was also given permission to have an Irrigation Department under
438 Khartoum's authority; after all, matters related to the Nile had until that
439 time been undertaken under the supervision and management of the
440 Egyptian Ministry of Public Works. The Commission also formally accepted
441 Sudan's right to withdraw water for the Gezira scheme. The report
442 concluded that Egypt should be 'able to count on receiving all assistance
443 from the administrative authorities in the Sudan in respect of schemes
444 undertaken in the Sudan',¹⁸ and very importantly, it was underlined that
445 Sudan should accept a limited rate of irrigation development.¹⁹

446 In the short term, it was significant that the Commission abolished the
447 limitation on the cultivated area in Gezira and substituted it with a
448 volumetric limitation. There were obvious technical and practical
449 arguments for this, since it established a more controllable and flexible
450 system. This change in how water demands were measured technically also

451 gave Sudan an additional benefit that neither the British nor the Sudanese
452 government disclosed. MacGregor, the British engineer who was in charge
453 of irrigation and Nile control in Sudan, knew that the official required
454 water/feddans ratio in Gezira had been grossly inflated by the former boss of
455 Egyptian water and Nile control, Murdoch MacDonald.²⁰ Thus, more land
456 could be irrigated per cubic metre of water than was officially known.
457 MacGregor calculated that it would be possible to extend Gezira by about 1
458 million feddans without extracting more water from the River, which meant
459 that the scheme could be expanded without detriment to the interests of
460 Egypt. Allenby informed the foreign secretary of this discovery. The experts
461 disagreed about the figure of feddans that could be watered now, but
462 the implication had been that the Allenby ultimatum turned out to have
463 been unnecessary from a 'water demand' point of view. His Majesty's
464 government was subsequently, due to the inflated figures produced by
465 MacDonald, given much more leeway *vis-à-vis* the British cotton industry
466 and the Sudan government, which both sought a bigger and more income-
467 generating Gezira scheme.

468 Due to this 'mistake' in the past, they could have it both ways now; they
469 could have an enlarged cotton farm in the Sudan, while London could try to
470 repair the political damage done in Egypt. What has been interpreted in the
471 literature as a rapid British 'change of mind' *vis-à-vis* Egypt was, therefore,
472 partly an upshot of quite different factors; MacDonald's inflated water/
473 feddans ratios, published in 1919 and 1920, turned out to be a great hydro-
474 political advantage in the late 1920s. London could overnight, if it so
475 wanted, almost double the irrigated area in Sudan without taking more of
476 the Nile waters from Egypt, which Egyptians still considered as theirs.

477 To the Sudanese government, it was still crucial that the Commission
478 should make it clear that their figures on Sudan water needs were not to be
479 taken as necessarily representing the maximum quantity that the Sudan
480 might take without prejudicing Egyptian interests. Water requirements at
481 national level are difficult to establish anywhere in the world, and in a
482 large, undeveloped country such as Sudan was in the 1920s, the task was
483 almost impossible to accomplish on scientific grounds. At the end of the
484 1930s, the British estimated Sudan's requirements at about 6 billion m³,
485 or about 10 per cent of Egypt's requirements, while at the beginning of
486 the 1920s these same requirements were considered to be less than
487 1 billion m³; today, the Sudanese government argues that the demands
488 are about 35 billion m³ of water.

489 Khartoum also argued that the Commission should underline that they
490 had not considered the question of *rights*, but had looked at the position
491 solely from the point of view of proposing practical arrangements that
492 could meet the actual requirements of the two countries over the next few
493 years. Khartoum feared that possible restrictions recommended by the
494 Commission might bind the Sudan forever to limits of water withdrawals
495 that were not acceptable. The British government agreed, and the report

496 was carefully formulated in such a way that both parties could be satisfied
 497 for the present. The need to decide between conflicting interests did not
 498 arise and was postponed into the future.

499 The conclusions and recommendations of the Nile Water Commission of
 500 1925 were neither accepted nor rejected by the Egyptian government, but
 501 London thought that the Nile Water Commission was at least a step in the
 502 right direction in a period when most other things were going against them
 503 in Egypt. When Allenby left office in May 1925, he was succeeded by Lord
 504 Lloyd, and in April 1927 Adli resigned and succeeded by Abd al-Khaliq
 505 Tharwat or Sarwat Pasha, a Liberal Constitutionalist. He negotiated a draft
 506 treaty with the British foreign secretary, but failed to win approval of the
 507 Wafd, the nationalist party.
 508

510 THE AGREEMENT AND EMPIRE

511
 512 British concern over control of the Suez Canal and the military base made
 513 the stalemate with Egypt unacceptable. Great Britain needed an agreement
 514 with Egypt that could secure its long-term interests, therefore in the midst
 515 of Lord Lloyd's authoritarian efforts to restrict the activities of opposition
 516 parties in Egypt, and as London dispatched the British fleet to Alexandria to
 517 back up its claim that the British inspector-general's service as Sirdar of the
 518 Egyptian Army should be extended, High Commissioner Lord Lloyd sent a
 519 confidential letter to Chamberlain in which he proposed to offer Egypt a
 520 Nile settlement that could form the basis of a much wider future settlement
 521 between the two countries.²¹ Great Britain should confirm to Egypt that
 522 Egypt, as a result of its physical configuration, must rely to a greater extent
 523 than Sudan on irrigation works, and that it must therefore exercise a
 524 preponderating influence on the general development of works designed
 525 to store the waters of the Nile. Britain would give the Egyptian government
 526 'all possible assistance'. In view of the news that the British had helped to
 527 spread in Egypt – about the American firm in Addis Ababa and the plans of
 528 the Emperor to build a dam at Lake Tana – these assurances, they hoped,
 529 should be regarded as important by the Egyptians. Britain should protect
 530 Egypt against a potential dam on the Blue Nile. But Lloyds' proposals were
 531 also subject to important Nile conditions: the Egyptian government should
 532 'avail themselves of the opportunities thereby offered', i.e. work together
 533 with the British government in carrying out 'without unreasonable delay' a
 534 development programme on the Nile.²²

535 The British intentions with the Nile Waters Agreement should not simply
 536 be seen as the legal institutionalization of a stroke of sudden Nile altruism,
 537 but rather as a diplomatic tactical move within a difficult and contentious
 538 political and hydro-political situation. In the literature, Lloyd's role has in
 539 general been characterized as 'champion of the rigid safeguarding of British
 540 interest in Egypt'.²³ In this case, however, he showed tactical flexibility to

541 secure Imperial interests. Lloyd hoped that British goodwill regarding the
542 water question would further what was already considered a positive
543 development in Anglo–Egyptian relations and Egyptian Nile politics. Lloyd,
544 in line with, this also reported optimistically to his foreign secretary that
545 Egypt apparently had concrete plans for implementing the great schemes
546 on the Upper White Nile, which London had worked on since the late
547 1890s. An Egyptian Public Works Commission – of which Lloyd’s man, the
548 British water engineer A.D. Butcher, was a prominent member – had
549 criticised the slowness of progress on the Upper Nile.²⁴ The Foreign Office
550 thought it therefore possible that the Egyptian government, before it
551 decided to heighten the Aswan Dam, would start work on the Upper Nile.²⁵
552 But London was once again disappointed. Egypt went for raising the Aswan
553 Dam rather than developing the White Nile reservoirs in Sudan and
554 Uganda. The Foreign Office noted that this was ‘wholly detrimental to
555 British interests’; the reason, of course, being that this undermined the
556 strategic asset of British control of the Nile upstream. In spite of this
557 development, the foreign secretary in London, Chamberlain, supported
558 Lloyd’s diplomatic efforts and wrote that he should ‘not relax’ in reaching
559 agreement with Egypt on the water issue.²⁶

560 I have above described the Sudanese and British Nile policy. What about
561 the other upstream areas that Britain controlled? Since the great natural
562 reservoirs of the White Nile were located in Uganda, and Uganda was the
563 place where several of the planned dams were to be constructed, that
564 country was by far the most important to British Nile strategy. Lloyd and
565 London took steps to bring the Ugandan government on line in relation to
566 the 1929 Agreement. It was important that Uganda should not publicly
567 protest against British-sponsored water plans upstream or demand
568 compensation from Egypt for the planned dams there at that particular
569 moment. London knew that the Colonial Office and its representatives in
570 Kampala were sceptical towards a British Nile policy giving Egypt too
571 much power over it to the detriment of the East African territories. To
572 London, however, such public criticism at the time was dangerous and
573 would only help to infuriate the Egyptians. The long-term aim was said to
574 bring about the necessity for a ‘comprehensive agreement’ regarding the
575 construction and operation of works that were not in Egyptian territory, and
576 ‘for which the consent of both the Sudanese and Ugandan Governments will
577 be necessary’.²⁷ Lloyd knew that Egyptians feared what they saw as unjust
578 attempts to make use of Britain’s geographical position,²⁸ and one way to
579 remove this fear was to play down these territories’ need for Nile waters.

580 It was important to London that an agreement should be in place before
581 more control works were carried out. Instead, the Egyptian government
582 proposed that works could be started before any such agreement was
583 concluded, since the latter arrangements would only increase what Egypt
584 considered its ‘established rights’. Egypt wanted to raise the height of the
585 Aswan Dam for a second time without having to discuss water allocation

586 issues with Sudan, while Britain wanted Egypt to take part in the upstream
 587 schemes in some way or another, but only if this cooperation was based on
 588 an allocation agreement. London thus had to win over those in Khartoum
 589 who regarded such an allocation agreement as premature. For its part, the
 590 Ministry of Public Works in Egypt told Lloyd that it could not accept any
 591 abdication of the control hitherto appertaining to it in the valley as such,
 592 due to public disapproval. To the Ministry, a new Nile Board as proposed by
 593 Allenby and London was a bad idea, and the British government ministers
 594 in Sudan were sceptical because they feared that it would mean they were
 595 being forced to consent to dams on the Nile in Sudan built for Egyptian
 596 purposes only.²⁹

597 In the meantime, the Egyptian political scene changed. Tharwat resigned
 598 and Mustafa an-Nahas (Nahas) Pasha, Zaghul's successor, became prime
 599 minister. After his resignation followed the brief interlude of Nahas Pasha's
 600 government during which time the negotiations did not make much
 601 progress. The King dismissed him in June and dissolved parliament in July.
 602 In effect, the constitution was suspended, and Egypt was again governed by
 603 royal decree under a Liberal Constitutionalist premier, Muhammad
 604 Mahmud Pasha. Now an agreement on the Nile had become more likely.

605 The negotiations took place against a background of serious water
 606 shortages in Egypt and conflicts over its use. The 1928 flow was very low.
 607 One example among thousands can be given: in April, Lloyd wrote to
 608 Chamberlain about the difficulties a British cotton-growing firm, the
 609 Aboukir Company, was facing due to water shortages.³⁰ The shortage was
 610 particularly marked in the province of Behera, where the company had its
 611 lands. The company had explained that at the time of its complaint, there
 612 were six working days and 12 days of stoppage. On 30 March, which was the
 613 last of the six working days, the manager cabled that no water had arrived
 614 within 5 km of the tail of the canals. The land would have to go for at least
 615 30 days without water.³¹ The result, it was thought, was that thousands of
 616 feddans would have to go out of cultivation. When the high commissioner
 617 was sitting down at Easter time to write a telegram to the foreign secretary
 618 in London about how water had reached no closer than 5 miles from the tail
 619 of the canals that gave life to the cotton seed in the province of Behera, the
 620 importance of breaking the deadlock on an agreement on Nile control was
 621 made evident both to London and to the new Egyptian government, whose
 622 legitimacy, as in all previous governments in Egypt, rested on its ability to
 623 bring enough waters to the fields.

624

625

626 THE EXCHANGE OF NOTES REVISITED

627

628 This Commission's report suggested that Egypt should be guaranteed
 629 water sufficient to irrigate the maximum acreage cultivated up to that time,
 630 5 million feddans. On that basis, quantitative estimates were derived that

631 gave Egypt acquired rights to 48 billion m³. The other Nile valley countries
632 were left out of the picture. The entire flow of the main Nile was reserved
633 for Egypt during the dry season. Egypt was further guaranteed that no
634 works that might prejudice its interests could be executed on the River or
635 any of its tributaries upstream. After 15 July, Sudan was entitled to take
636 water for the Gezira scheme up to certain maximum daily rates in order to
637 fill the Sennar Reservoir, and to flood the area developed under basin
638 irrigation downstream of Khartoum. Although this increase was a far cry
639 from the maximum demands that could be heard in Sudan, it was a step in
640 the right direction for Khartoum. The agreement broke what they called
641 Egypt's 'monopolistic' attitude to the Nile waters. London was to facilitate
642 the establishment of waterworks upstream for the benefit of Egypt and the
643 share of Sudan in the Blue Nile was dependent upon the amount of water
644 Egypt could draw from other tributaries.

645 The agreement has been characterized as being 'solely for the benefit of
646 Egypt'.³² It was obviously, and from one point of view, strongly biased in
647 favour of Egypt, but this assessment ignores the intricacy of Nile diplomacy
648 and regional hydro-politics. To London, it was seen as a necessary stepping-
649 stone towards a new general treaty with Egypt; it was far less Egypt-biased
650 than the water policies of Salisbury, Cromer and Garstin. London
651 succeeded in allocating more water to Sudan, and most importantly this
652 was formally acknowledged by Egypt. An overlooked aspect of the
653 agreement was that any extension of large-scale irrigation in either
654 northern Sudan or Egypt was regarded as presupposing the exploitation,
655 conservation or damming of upstream waters. By giving Sudan a legal role
656 in Nile development, London also hoped to realize its role as the strategic-
657 political key through which it was possible to hold Egypt – at Sudan's
658 mercy. After all, it was only two years earlier that a leading British water
659 expert could still justifiably write that the Sudan branch's main object was
660 to collect hydrological information and study projects for the increase of
661 the Egyptian water supply, while the inspector-general of irrigation in
662 Sudan with his headquarters at Khartoum was responsible to the under-
663 secretary of state at the Ministry of Public Works in Cairo.³³

664 The exchange of notes was silent, however, on what has been called in
665 the literature 'the real issue' – a plan for hydrological development of the
666 entire Nile Basin. It has therefore been described as a testimony to 'a lost
667 opportunity, a tragedy', and the 1929 Agreement's 'limited achievements' is
668 reflected in the scant subsequent enthusiasm for more 'cement and stone
669 for conservancy projects'.³⁴ At the time, however, it was unrealistic that the
670 parties should agree to such a plan of reservoirs across the Basin – both on
671 technological and economic grounds, and especially for political reasons.
672 Britain wanted Egypt to implement projects upstream, while Egypt feared
673 such projects under British actual control and instead prioritized the
674 heightening of the Aswan Dam because it was within Egypt's borders. The
675 Egyptian nationalists were definitely not in the mood to join hands with

676 their British foe to develop their life artery, although in the 1930s they
677 grudgingly accepted the Jabal Auliyya Reservoir. The Tana Dam on the Blue
678 Nile could not be part of an official agreement as it was placed on Ethiopian
679 territory. ‘Black Thursday’ on Wall Street, just some months after the
680 exchange of notes, made investors less enthusiastic about more cement
681 and stone anywhere in the world.

682 One long-term impact was that the Agreement established the Nile Basin
683 and Nile waters *de jure* as being more than Egypt’s backyard. A clause
684 declared that of the Egyptian government decided to construct any works
685 on the river in Sudan, it had to agree beforehand with the local authorities
686 on the measures to be taken for the safeguarding of local interests. Sir John
687 Maffey, the new governor-general, immediately interpreted the agreement
688 to the effect that no waterworks could be undertaken in Sudan without the
689 Sudanese government’s consent and that such consent must be withheld
690 unless the Sudanese government was satisfied that the work would be
691 carried out efficiently and with smooth cooperation. Maffey thus thought
692 that Sudan had been given an *effective veto* on any work, unless
693 arrangements that in its opinion were adequate were made to safeguard
694 local interests. The British in Khartoum, Cairo and London secretly
695 discussed this interpretation. The Foreign Office argued that Maffey
696 overestimated the strength of the Sudanese government, since there was
697 nothing in the agreement that forced the Egyptian government to seek
698 consent from the Sudanese government, although in most cases this would
699 be a reasonable interpretation of ‘local authorities’.

700 The government of Uganda protested and ‘expressed uneasiness’ as did
701 the Colonial Office, because the agreement deprived Uganda of any right to
702 exploit the Nile waters in the country (the same was the case for Tanzania
703 and Kenya, and in some measures Sudan as well). The Foreign Office
704 understood but accepted that the freedom of Uganda would be
705 ‘restricted’.³⁵ The government of Uganda hoped the agreement would
706 lapse when the projects described in the Nile Commission’s report of 1925
707 had been implemented (the Jabal Auliya Dam and Nag Hammadi Barrage).
708 They were resting their hope on an illusion that ‘any obligations which it
709 entails on the Government of Uganda will thereby be abrogated’.³⁶ They
710 grudgingly accepted the limitations put on their development in the short
711 run, since they thought it would be renegotiated in the near future.³⁷
712 Nobody asked Ethiopia about its opinions at the time, and London insisted
713 that the 1902 exchange of notes was legally binding and still in force.

714 The Colonial Office in London was very sceptical about the agreement,
715 because it hindered development in Uganda. The Foreign Office had given
716 a verbal assurance to the Colonial Office that the Nile Agreement would
717 only be effective until works contemplated in the report of the Nile
718 Commission had been completed,³⁸ knowing full well that the final
719 sentence of Lord Lloyd’s letter of 7 May gave the most positive assurances
720 that the Agreement would be observed at all times and under any

721 circumstances. The Foreign Office could not completely go back on what it
722 had told the Colonial Office, and its top Nile bureaucrat, John Murray,
723 subsequently wrote a proposed text to the governor of Uganda to be sent
724 from the Colonial Office, in which it was underlined that the agreement was
725 meant to be temporary; 'on the completion of the works contemplated in
726 the Agreement, it will be possible to re-examine the situation as it then exists,
727 and to take into account any requirements of Uganda and other British
728 territories concerned which may then call for special consideration'.³⁹

729 The Upper Nile region was still conceived by both parties as a barrel filled
730 with water. Although Egypt was given the lion's share of the Nile water, the
731 allocation system formulated in the 1929 Agreement was basically in line with
732 overall British strategy in the valley. It turned their planning conceptions of
733 the past into a binding diplomatic agreement with important implications for
734 the future: London prioritized the central riverine Sudan over the southern
735 periphery, and its relationship with Egypt over those with Sudan, Uganda
736 and Ethiopia.

737 London hoped the exchange of notes on the allocation of the Nile waters
738 would improve the general political atmosphere so that a comprehensive
739 Anglo-Egyptian treaty could be reached, while Britain could continue to
740 have strategic control over the River upstream. Egypt refused to accept any
741 treaty agreement that did not include a broader solution of the Sudan
742 question. Britain hoped that by guaranteeing the flow of the Nile, Egypt
743 could accept the status quo in Sudan. Egypt saw that Sudan had become
744 under the increased influence of London, while Cairo regarded Sudan as
745 being under the Egyptian Crown. The Nile Waters Agreement, one of the
746 most important basin agreements in the first half of the twentieth century,
747 can therefore be seen, at least partly, as an expression of Britain's weakened
748 position as compared to the years before the Egyptian revolution, and
749 partly as a reflection of the convergence of Egyptian perceptions of the Nile
750 as an Egyptian river and British strategic thinking.

751 The 1929 Agreement for cooperation on the Nile was an important step
752 in a development that ended with the creation of Sudan as sovereign state
753 in 1956. The countries of the White Nile and their potential developmental
754 needs for Nile control works were sacrificed on the altar of Egypt and
755 Sudan, the latter's since Sudan's use of Blue Nile water presupposed that
756 Egypt got the entire White Nile. Historically, the borders of Egypt in the
757 south had been defined by the cataracts of the Nubian Nile. During the time
758 of the British Nile Empire, the really conflicting interests between irrigated
759 agriculture in Sudan and Egypt were a context for and exploited by London
760 in order to strengthen those political forces in Sudan that wanted an
761 independent, sovereign Sudan, against those who wanted Sudan to be
762 united with Egypt in a Nile valley state. The ideas and practice of state
763 sovereignty were therefore strengthened by both the physical aspects of
764 the river system and by how it had been managed and conceived during the
765 British era in the valley.

THE AGREEMENT, INTERNATIONAL WATER LAW AND STATE SOVEREIGNTY

The much-hailed Nile Waters Agreement of 1929 should be seen as the outcome of a complex power play between a colonial power, Britain, and Egypt, a formally sovereign state but restricted in a particular way because explicitly its autonomy did not cover foreign policy and Nile-related themes. The Agreement's content was the product of a complex development where geopolitics, regional political issues and a particular river basin's hydrology and potentials for river management and control intervened. It was made politically possible in 1929 due to particular power configurations, and the final Agreement bore the stamp of the River itself and the hydrological regime of the two major tributaries. The water system in the upstream White Nile countries (much local rainfall in many places and an undeveloped irrigation sector) made it politically acceptable, although problematic.

What has been described as the general historical tension between conceptions of state sovereignty and the development of legal arrangements for cooperation over transboundary water resources was not irrelevant here, but led to a very special sequel. The accord between the two states sharing an international river was not based on a development whereby past positions grounded in traditional Westphalian notions of unrestricted sovereignty gave way to positions that recognized the need to limit the sovereign discretion of states on the basis of sovereign equality. On the contrary, the 1929 Agreement was a water agreement that, long before the 1997 UN Watercourses Convention, accepted and recognized the requirements of transboundary cooperation over international water resources. The agreement made Egypt sovereign over the whole river flow of the White Nile system, however, while at the same time it also established Sudan as a potential sovereign actor, especially in relation to rights of utilization of the Blue Nile.

This bilateral cooperative treaty was not accompanied by or did not lead to the establishment of a 'community of interests' approach normally achieved by means of some sort of joint institutional machinery. A form of cooperative arrangement seeking to manage a river basin as an integrated economic and ecological unit or to achieve the sharing of benefits deriving from shared waters was not agreed upon. Such approaches were opposed to by one of the parties to the Agreement (Egypt), and Britain was not in a position to impose it. The Agreement did not lead to supranational regimes of water resources management where policymaking authority would be lodged in basin-wide institutions.

Water remains, it is said, the sovereignty issue *par excellence* in the sense that cooperation over common goods is said to undermine state sovereignty. But that was not the case here. Sovereignty was developed, linked to and encouraged by demands and disagreements about the use of a transboundary river. The British used potential disagreements between the Sudanese elite (also the political elite) and Egypt over the Nile waters as

811 a means to establish Sudan as a country independent of Egypt. Here,
 812 therefore, the historical processes contradicted general theories about the
 813 impact of transboundary river management on sovereignty, and how they
 814 constitute a ‘threat’ to state sovereignty. As a move to weaken Egypt’s
 815 monopolistic attitude to the waters of the entire Nile, encouraged by early
 816 British basin-wide, multipurpose river-basin planning when London was
 817 mostly or only concerned with the Nile and its potential utilities in Egypt,
 818 the issue of Sudan’s demand for more water – also reflected in the Nile
 819 Waters Agreement of 1929 and the accompanying text of 1920 report – was
 820 a way to construct sovereignty as a political issue in Sudan. The Nile and the
 821 White Nile was for Egypt. Sudan could use some of the winter flows of the
 822 Blue Nile because Egypt did not need this water and was not in a position to
 823 store it at the time due to the silt-laden floods of the river.

824 The history of the British Nile Empire presents an empirical example that
 825 falsifies certain general theories about the evolution of water law and the
 826 relationship between state sovereignty and international river basins.
 827 London, as the ‘command centre’, placed clear limits on the authority of
 828 colonial governments to act within their borders. London’s concern was
 829 not the ‘human right’ to water, or the optimal, equitable planning of water
 830 uses, but optimal, rational water planning as long as it was in line with
 831 British Imperial strategies in which Nile control was but one, albeit
 832 important, method by which it furthered its interests.

833 The actual management of transnational water resources has in general
 834 more to do with international politics and power relations than with such
 835 technical issues as water use practices, assessment of water needs or
 836 international water law. The issue is not only about interstate relations or
 837 general social relations, but also about nature and the physical characteristics
 838 of the individual river basin, a fact that very is often overlooked in discussions
 839 about general legal principles and evolutions of international water law. The
 840 history of hydro-politics in the Nile basin shows this more clearly than any
 841 other place due to the richness of this extremely fluid history. The tension
 842 between the two principles of protecting ‘historic rights’ and providing for
 843 development equity is evident. It is further complicated when the historical
 844 contexts for development and rights are assessed.

845

846

847 NOTES

848

849 1 The history of the British Nile Empire and British Nile policies is described in
 850 much greater detail in Tvedt, 2004.

851 2 Lord Lloyd to Mohammed Mahmoud Pasha, 7 May 1929, in *Sudan Pamphlets* 89.

852 3 See especially Garstin 1899 (enclosed in a despatch from His Majesty’s agent
 853 and consul-general at Cairo, and presented to both Houses of Parliament, June
 854 1899). A slightly different version was published as ‘Note on the Soudan’ (1899,
 855 Cairo). See also Garstin 1901, 1904; Dupuis 1904; and Cromer 1908.

- 856 4 The Blue Nile's annual inundation in Khartoum is on average estimated as 54
857 billion m³ per year; at Aswan it is 48 billion m³ per year. Ethiopia's contribution
858 to the Nile system through the three head streams – i.e. the Blue Nile, Tekeze-
859 Atbara and Baro-Akobo River Basins is 68.7 billion m³ per year or 82 per cent of
860 the total Nile flow.
- 861 5 Foreign Office Memorandum, Sperling, 'Resumption of negotiations for the
862 construction of a dam on Lake Tsana', 8 November 1922, FO 371/7151.
- 863 6 Foreign Office Memorandum, Murray, 4 January 1923, 'Memorandum on the
864 political situation in Egypt', FO 371/8972.
- 865 7 Crowfort, 1924: 86.
- 866 8 Kewin-Boyd to Allenby, 14 March 1920, FO 371/4984.
- 867 9 Vatikiotis, 1991: 388.
- 868 10 Allenby to Austin Chamberlain, 15 December 1924, FO 371/10046.
- 869 11 Quoted in Kurita 1989: 26.
- 870 12 Quoted in Sir John Maffey to Sir P. Loraine, 15 August 1930, FO 371/4650.
- 871 13 'The Crisis in Egypt. Mr MacDonal on the ultimatum. A mandate for the
872 Sudan', *The Times*, 29 November 1924.
- 873 14 Ziwer Pasha to Allenby, 26 January 1925. Texts of notes exchanged between
874 Lord Allenby and the Egyptian Government on 26 January 1925 regarding the
875 control of the Nile water, FO 371/10882.
- 876 15 Allenby to Ziwer Pasha, 26 January 1925 (as put together in the Foreign Office
877 from Cairo telegrams), FO 371/10882.
- 878 16 Note from Lord Allenby to Ziver Pasha, 26 January 1925, in *Sudan Pamphlets*, p. 89.
- 879 17 MacGregor found the Egyptian member difficult to cooperate with. In order to
880 come up with an acceptable report, he informed Allenby and the British
881 government that he had had what he himself called clandestine meetings with
882 the British water-planners Hurst and Butcher, who were employed by the
883 Egyptian Government (Allenby to Chamberlain, 25 May 1925, Enclosure 3 in
884 No. 1 by Mr. R.M. MacGregor).
- 885 18 Nile Commission, 1925: 30.
- 886 19 Ibid: 28.
- 887 20 MacDonal's *Nile Control* provided, during the period when the Sennar
888 Reservoir would be in use, a water allowance at the canal head of 15 m³ per
889 feddan per day, including 33 m³ for losses between the canal head and the
890 5,000 feddan blocks. MacGregor had worked out, on the basis of figures
891 obtained from research at Hag Abdulla and Wad-el-Nau, that a water allowance
892 at a canal head of 10 m³, including 2 m³ for losses, would suffice. Thus, only
893 two-thirds of the water provided would be actually required, and an extension
894 of 150,000 feddans became possible on the assumption that the reservoir drew
895 upon the Nile from 18 January to 15 April. In terms of volume this saving
896 amounted to 5 m³ per feddan per day on 300,000 feddans for 87 days, i.e. 130.5
897 million m³. Moreover, *Nile Control* argued that the date from which the canal
898 would have to be supplied from storage was 18 January and the waters could
899 be returned to the river at the end of March. MacGregor discovered, however,
900 that the former date should be moved back to nearer the beginning of January,
which also made it possible to bring the latter date forward to the beginning of
March. Therefore it was assumed that the reservoir would be called upon to
serve the present area for a period of 60 days instead of 87, as contemplated in
Nile Control. This saving would amount to 15 m³ per feddan per day on

- 901 300,000 feddans for 27 days, i.e. 125 million m³. Assuming the period to be
 902 65 days, the volume available would permit an extension of 190,000 feddans.
 903 21 Lord Lloyd to Sarwat Pasha, 16 February 1928, Enclosure 1 in No. 1, Lloyd to
 904 Chamberlain, 23 February 1928, FO 371/13138.
 905 22 Draft of a note to be addressed by His Majesty's high commissioner to the
 906 president of the Council of Ministers, Enclosure 3 in No. 1, Lloyd to
 907 Chamberlain, 23 February 1928, FO 371/13138.
 908 23 Vatikiotis, 1991: 284.
 909 24 He wrote a note about the Egyptian government's consideration of the report
 910 of the Parliamentary Finance Commission on the budget of the Irrigation
 911 Department for the current financial year. Under the heading 'Sudan', an
 912 estimate of £E 1,100,000, of which £E 130,000 was to be spent in 1928, had
 913 been included for the 'modification and improvement of the flow of the Nile in
 914 the Sudd region', by means of large dredgers to be purchased abroad. Lloyd to
 915 Chamberlain, 12 May 1928, FO 13138.
 916 25 Foreign Office minute, Murray, 1 August 1928, FO 371/13138.
 917 26 Foreign Office to Lloyd, draft, 15 March 1928, FO 371/13138.
 918 27 Draft Note, Lloyd to the Egyptian Minister for Foreign Affairs, n.d. (July 1928,
 919 my comment), FO 371/13138.
 920 28 Lloyd to Chamberlain, 14 July 1928, FO 317/13138.
 921 29 Lloyd to Chamberlain, 20 February 1928, FO 317/13137. The Nile Board that
 922 should be responsible for the entire Nile should be made up of two
 923 representatives of the Egyptian government and two representatives chosen
 924 by the British government (Allenby and the governor-general of Sudan, Maffey,
 925 agreed that they should represent the Sudan government, and the salaries
 926 should be paid by Khartoum).
 927 30 Lloyd to Chamberlain, 14 April 1928, FO 371/13138.
 928 31 Copy of letter dated 12 April 1928 from the secretary of the Aboukir Company,
 929 Ltd., to his Excellency the Minister of Public Works, FO 371/13138.
 930 32 Collins, 1996: 157.
 931 33 Tottenham, 1927: 21.
 932 34 Collins, 1996: 158.
 933 35 Draft letter, Foreign Office to Sir W. F. Gowers, November 1929, FO 371/13857.
 934 36 Parkinson, Colonial Office to the under-secretary of state, Foreign Office, 2
 935 November 1929, FO 371/13857.
 936 37 They had just organized fisheries surveys in these lakes for the first time (see
 937 Worthington, 1929).
 938 38 Parkinson, Colonial Office to C. J. Norton, Foreign Office, 14 November 1929,
 939 FO 371/13857.
 940 39 Murray to the Under-Secretary of State, Colonial Office, 2 December 1929 FO
 941 371/13857.

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