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Developmental Aspirations and Implementation Strategies of Large Dam Projects in African States: the Aswan High Dam (Egypt), the Akosombo Dam (Ghana) and the Grand Ethiopian Renaissance Dam (Ethiopia)

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Aswan High Dam (1960-1970)

Akosombo Dam (1961-1965)

Grand Ethiopian Renaissance Dam (2011-)

"*At the heart of the dams[’] debate are issues of equity, governance, justice and power - issues that underlie the many intractable problems faced by humanity*"

(World Commission on Dams 2000: xxviii)

"*The imperative to supply growing populations and economies with water in a context of depleting groundwater resources, declining water quality and increasingly severe limits to surface water extraction has brought sustainable water resources management to the top of the global development agenda*"

(World Commission on Dams 2000: xxix)

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List of Acronyms

AREI	African Renewable Energy Initiative
AVA	Awash Valley Authority
CIA	Central Intelligence Agency
CIDA	Canadian International Development Agency
Council	National Council for the Coordination of Public Participation on the Construction of the GERD
CPP	Convention People's Party
DIS	Department of Information Services
EEPCO	Ethiopian Electric Power Corporation
ENTRO	Eastern Nile Technical Regional Office
EPRDF	Ethiopian People's Revolutionary Democratic Front
FAO	United Nations Food and Agriculture Organization
GTP	Growth and Transformation Plan
ICCON	International Consortium for Cooperation on the Nile
ICOLD	International Commission on Large Dams
IEA	International Energy Agency
IIED	International Institute for Environment and Development
IMF	International Monetary Fund
IPoE	International Panel of Experts
IUCN	International Union for Conservation of Nature
MIT	Massachusetts Institute of Technology
NBA	Save the Narmada Movement
NBI	Nile Basin Initiative
NIL-COM	Council of Ministers of Water Affairs of the Nile Basin Countries

RCC	Revolutionary Command Council
TNC	Technical National Committee
TVA	Tennessee Valley Authority
UK	United Kingdom
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States of America
USBR	US Bureau of Reclamation
VRA	Volta River Authority
VRP	Volta River Project
WCD	World Commission on Dams

Abstract in English

Over the past century, tens of thousands of large dams have been constructed worldwide. Among them, a number of fascinating but also controversial political prestige projects were first built primarily in the Global North and later on in newly politically independent states of the Global South. Their leaders appropriated them as symbols for nation-building and modernization. After decades of criticism since the 1970s, which questioned the role of large dams for development, a set of new international standards was developed. The 21st century faces a new rush for extremely costly and massive projects, inter alia, for producing hydropower.

This master thesis considers these key periods and differing geo-political contexts, both shaped by a certain zeitgeist and underlying paradigms. It first addresses the Aswan High Dam (Egypt) and the Akosombo Dam (Ghana) as case studies within the *decolonization-development-modernization-Cold War-nexus*. Then, the Grand Ethiopian Renaissance Dam (Ethiopia) is analyzed within the *resource scarcity-sustainable development-ecological modernization-multipolarity-nexus*. In contrast to the existing literature, this thesis conducts a holistic and multilayered contextual embeddedness to not only comprehend generally dominating developmental aspirations surrounding the object of study; moreover, it also uncovers the web of coexisting and conflicting struggles and drivers, which political leaders of African states are confronted with when striving for and actually implementing their projects. The need for foreign capital and technological expertise urges them to enter the global economy, which is characterized by power asymmetries, political interests and dependencies. In light of this, the thesis argues that the African political leaders have generated a *Third Space of Maneuver* by pursuing a certain foreign policy strategy that actively took advantage of a seemingly binary context to advance their own costly prestige projects. Thus, it breaks with the dominant narrative of depicting powerful state actors, such as the Soviet Union, the United States and China, and multilateral financial actors, such as the World Bank, as the makers of history. It ascribes a certain degree of power to these African state actors which was gained through negotiation processes when taking advantage of their time and space, although not causing structural changes.

Furthermore, this master thesis does not treat the three case studies as isolated units but rather focuses on the entanglements of the various project levels and traces parallels. Thus, the thesis uncovers global inter-connectedness through time and space by considering a wide range of overlapping and intertwined processes, dynamics and structures that intersect in the object of study.

Abstract in German

Im Laufe des letzten Jahrhunderts wurden zehntausende große Staudämme weltweit gebaut. Zu ihnen zählen einige faszinierende, aber auch kontroverse politische Prestigeprojekte, die zunächst primär im Globalen Norden und später in politisch unabhängig gewordenen Staaten des Globalen Südens errichtet wurden. Sie dienten politischen Führungskräften als Symbole für Nationalstaatsbildung und Modernisierung. Nach Jahrzehnten der Kritik seit den 1970ern, welche die Rolle von Großen Staudämmen für Entwicklung in Frage stellte, wurde eine Reihe von neuen internationalen Standards entworfen. Das 21. Jahrhundert erlebt eine neue Welle von kostspieligen und massiven Projekten, die unter anderem, Wasserenergie produzieren.

Diese Masterarbeit berücksichtigt diese Kernphasen und die verschiedenen geo-politischen Kontexte, jeweils beeinflusst durch einen bestimmten Zeitgeist und die ihm zugrunde liegenden Paradigmen. So adressiert sie als Fallbeispiele zunächst den Assuan Staudamm (Ägypten) und den Akosombo Staudamm (Ghana) innerhalb des *Dekolonialisierungs-Entwicklungs-Modernisierungs-Kalter Krieg-Nexus.* Nachfolgend wird die Grand Ethiopian Renaissance Talsperre (Äthiopien) innerhalb des *Mangelnde Ressourcen-Nachhaltige Entwicklungs-Ökologische Modernisierungs- Multipolaritäts-Nexus* analysiert. Im Kontrast zu der vorhandenen Literatur führt sie eine ganzheitliche und vielschichtige kontextuale Einbettung durch, um nicht nur generell vorherrschende Entwicklungsbestrebungen hinsichtlich des Forschungsobjekts nachvollziehbar zu machen, sondern vielmehr wird das Gefüge von parallel existierenden und in Konflikt stehenden Bestrebungen und Antrieben enthüllt. Mit diesem Gefüge sind politische Führungskräfte afrikanischer Staaten konfrontiert, wenn sie ihre eigenen Projekte anstreben und umsetzen. Aufgrund des Bedarfs von ausländischem Kapital und technologischer Expertise müssen sie sich mit der Weltwirtschaft auseinandersetzen, die von ungleichen Machtverhältnissen, politischen Interessen und Abhängigkeiten charakterisiert ist. Angesichts dessen wird in dieser Masterarbeit argumentiert, dass afrikanische politische Führungskräfte ein sogenanntes „*Third Space of Maneuver*“ eröffnet haben. Dies bedeutet, dass sie eine bestimmte außenpolitische Strategie angewendet haben, um sich aktiv Vorteil von einem scheinbar binären Kontext zu verschaffen und so ihre eigenen kostspieligen Prestigeprojekte voranzutreiben. Daher bricht die Arbeit mit dem vorherrschenden Narrativ, der mächtige Staatsakteure, wie die Sowjetunion, die Vereinigten Staaten von Amerika und China, und multilaterale Finanzakteure, wie die Welt Bank, als Macher der Geschichte darstellt. Sie stellt einen bestimmten Grad von Macht der afrikanischen Staatsakteure fest, den sie während Verhandlungsprozessen gewonnen haben, in dem sie ihre Zeit und ihren Raum für sich genutzt haben, ohne jedoch strukturellen Wandel zu bewirken.

Zudem behandelt diese Masterarbeit die drei Fallbeispiele nicht isoliert, sondern fokussiert sich auf Verschränkungen der einzelnen Projektebenen und verfolgt Parallelen. So deckt die Arbeit globale Verbindungen durch Zeit und Raum auf und berücksichtigt eine große Bandbreite von überlagernden und ineinander verflochtenen Prozessen, Dynamiken und Strukturen, die im Forschungsobjekt zusammenfließen.

Foreword

Having accomplished the Master's course "Global Studies - A European Perspective" at respective institutes at the University of Leipzig and the University of Vienna, both institutions have shaped my acquired knowledge and understanding of how to "study globalization processes" likewise. While both have an emphasis on Global History, I was exposed to various methodological access points and conceptual approaches with different degrees of flexibility and determination. Thus, this master thesis' approach and style of argumentation constitutes my interpretation of the young field of Global Studies.

First of all, the thesis builds upon an interdisciplinary methodological framework, combining considerations of two explicit fields, having a directive character, while incorporating knowledge from other fields in the course of analysis to create an inclusive, impartial and case-specific approach. Second, the overall aim is to make sense of and uncover global interconnectedness through time and space from the lens of an object that is situated at the intersection of various temporal and coexisting spatial levels, illustrating various globalization processes as its materialization is shaped and mediated by them.

The object of this thesis are large dam projects. While a large dam is physically situated at a concrete locality within a national territory, the large dam as a project takes shape through cross-border contacts, for instance, when depending on foreign expertise from various actors, embodied by skills, ideas and machinery, as well as on foreign capital. On the one hand, large dam projects can have transnational consequences in a material sense when controlling transboundary rivers and changing ecosystems. On the other hand, they have a transnational dimension when being used as strategic instruments for seeking influence in foreign territories and political affairs by establishing economic ties and dependencies. When a single project is promoted as the centerpiece of a national development agenda and framed as a national symbol, its societal benefits can be overemphasized by political leaders, although the aspirations of large dam projects appear tangible due to their specific purposes and technical capabilities. Aspirations are not raised as novelties and in isolation but circulate due to the fascination of preceding projects, while being shaped by the geo-political context, historical circumstances, the zeitgeist, and concrete societal needs. In order to historicize Euro-centrism and assess African agency, this thesis seeks to analyze the realization of national large dam projects in three African states from the perspective of the political leader's motivations, caught by certain paradigms, and the subsequent implementation strategies.

1. Introduction

US President Franklin Roosevelt called the Hoover dam a "great feat of mankind"[1]. For the Bolsheviks, hydropower dams ought "to produce the girders of communism"[2]. India's first prime minister Jawaharlal Nehru called dams "the new temples of modern India"[3].

In the first half of the 20th century large dams were mostly built in the Global North for the purpose of facilitating flood control, irrigation and water supply, as well as generating hydropower to address the needs of growing populations and industries by harnessing nature through human skill and technology. Prestigious projects, such as the American Hoover dam, were presented as having universal benefits. From the middle of the 20th century onwards, leaders of newly politically independent states in Africa and Asia appropriated large dams as symbols and tools for nation-building, state-building and economic development as they were seen as guarantees for pathing the way towards modernity. Two examples, the Aswan High Dam in Egypt (1960-1970) and the Akosombo Dam in Ghana (1961-1965), will be analyzed as case studies, embedded in the decolonization-Cold War context. As criticism on massive dam projects - due to their negative social and ecological consequences and often weak economic performances - intensified from the 1970s onwards and opposition organized in various parts of the world, perceptions of the role of large dams for development changed. Embedded in the framework of new international standards at the turn of the 21st century, a new rush for large dams is noticed - mostly in the Global South. In the context of the contemporary multipolar world order, proponents depict large hydropower dams as adequate tools for responding to the challenges of climate change, and energy-food-water insecurity, and for diversifying and modernizing economies and thus for eventually catching up in terms of "development". Here, the example of the Grand Ethiopian Renaissance Dam in Ethiopia (2011-present) serves as a third case study.

This brief overview indicates already that aspirations surrounding large dam projects appear similar through time and among political leaders of various ideological backgrounds, influenced by the paradigms of "modernization" and "development"[4];

[1] Roosevelt 1935.
[2] Josephson 1995: 528.
[3] Biswas and Tortajada 2001: 11.
[4] The author is fully aware of critical approaches towards "development" and "modernization" and the existence of various notions and theories. In this thesis both terms will be applied as key words, which were and are applied in practical politics and policy-making.

however, embedded in different geo-political and historical contexts. Thus, one focus of the thesis is to trace these *developmental aspirations*, meaning the irrational and rational hopes as well as promised and expected benefits, of large dam projects. Therefore, the analysis of each case study will start by reconstructing the respective geo-political context and dominant zeitgeist to understand the incentives, possibilities and capabilities of realizing these projects. Furthermore, the main body of the thesis will start by briefly discussing two additional large dam projects, realized in the 1920/30s and thus at the beginning of the era of large dams, ushering and foreshadowing aspirations for the next decades. By connecting the analysis of the first two case studies, taking shape in the 1950-70s, with the discussion on large dams in the subsequent decades of criticism and "the way forward", which again sets the context for the last case study, this thesis facilitates a continuous embeddedness. This approach avoids contextual clear-cuts and thus an incoherent analysis by exemplifying the general history of large dams with fluid transitions in an illustrative and at the same time comprehensive way.

Building up on the uncovered general and specific aspirations as drivers, the second emphasis of the thesis is to analyze the *implementation strategies*. This refers to the analysis of negotiation and bargaining processes of respective political leaders and decision-makers with various international, regional and national actors, taking place on different project levels and during different phases as dams need to undergo feasibility studies, need to be planned, financed, promoted and constructed. As these processes are shaped by various geo-political interests, they influence the processes of the other projects. Thus, this thesis seeks to uncover entanglements and asses their relevance. It will pay attention to the (re)occurrence of actors and the subsequent multi-directional transfer of knowledge, ideas and expertise. The focus on entanglements also explains and justifies the choice and asymmetrical composition of the case studies. By combining the ambition of tracing *developmental aspirations* and analyzing *implementation strategies*, the thesis seeks to answer the following guiding research questions in the course of the discussion of each case:

- Which similar but also differing aspirations surround the projects?
- How do political leaders engage with relevant actors on different levels in order to realize the projects?
- To what degree are the large dam projects entangled and what is the relevance of these entanglements?

Furthermore, the thesis argues that the respective African political leaders aimed at generating a *Third Space of Maneuver* in order to realize their projects. Embedded in the decolonization-Cold War context, Gamal Abdel Nasser (Egypt) and Kwame Nkrumah (Ghana) actively applied a non-aligned foreign policy to use the competition between the two superpowers, the USA and the Soviet Union, for their own interests by engaging with both to receive needed financial and technical support. In the contemporary rather multipolar world order, the Ethiopian government also pursues a foreign policy of pragmatism. With respect to large dam projects, it has received support, inter alia, from the traditional dam financer, the World Bank, framed as a promoter of the new international standards, imposed by predominantly Western institutions. It has also received assistance from other actors, which have only entered the international dam industry recently: Chinese banks, builders and contractors, who are framed as promoters of the "old" idea of state sovereignty. Some scholars present the availability of Chinese expertise and capital for African political leaders as providing an alternative to the Western approach - especially in the Ethiopian context. Yet, the Ethiopian government under former prime minister, Meles Zenawi, decided for a third option: self-financing. Hence, even in the contemporary, hard to define global order, shaped by tendencies without a clear vision, a *Third Space of Maneuver* can be created in a concrete context.

However, the successful realization of these maneuvers and thus of advancing extremely costly and technologically sophisticated projects depends on leaders' diplomatic capabilities, the usage and existence of domestic resources and the geo-political environment. It is steadily renegotiated in the process of bargaining with powerful actors whose interests vary, which might lead to compromises or complete changes. Thus, this thesis aims at answering the following central research question:

Embedded in different geo-political contexts but motivated by assumingly similar developmental aspirations, to what degree have political leaders managed to generate a Third Space of Maneuver to implement their large dam projects?

The master thesis will start by presenting and discussing the methodological framework, which does not apply a specific theory. Instead, the approach consists of a perspective of Global History, *Entangled History*, as the main point of departure, shaping the structure of the thesis and helping to assess interconnectedness as well as parallels of all large dam projects through time and space, in combination with an agency-oriented *Foreign Policy Framework*. The latter is applied as an analytical tool to assess the bargaining power of

decision-makers who negotiate each individual case. Here, the *Third Space of Maneuver* will be conceptualized as well. Subsequently, the methodological procedure in terms of choice and relevance of accessed sources will be discussed. Having this in mind, the state of research - on large dam projects in general and the selected projects in particular - will be presented to locate the thesis within the research landscape, to highlight essential scholarly accounts for its content and to expose its originality.

Part I of the main body will start by briefly presenting the early history of water projects, defining large dams and their purposes. Beforehand, it is worth to clarify that the three projects have, inter alia, the purpose of producing hydropower and that all indeed dam river flows by creating massive reservoirs. Henceforth, the well-known American Hoover dam (1931-1935) will be discussed, which is framed as a signifier for the era of large dams, while US engineering expertise became internationally recognized. Here, the Tennessee Valley Authority (TVA) and its multipurpose dams will be presented as a model for river basin development projects, whose relevance will be referred to in the discussion of the case studies. The Hoover dam's Soviet counterpart, the Dnieper hydroelectric station (1927-1932), and the role of the Soviet "Hydroproject" will also be discussed to illustrate the successful and recognized establishment of "exportable" expertise by both future superpowers during the interwar period. Building up on this, essential theoretical considerations for the first two case studies are presented as a *decolonization-development-modernization-Cold War-nexus* before pointing out how large dams were situated in this nexus. Then, the two cases will be analyzed.

In part II, the decades of criticism and the renaissance of large dams, initiated by the World Commission on Dams (WCD), will be presented to provide an understanding of the changed perceptions, values and procedures as well as to assess to what degree the new incentives are promoted by the World Bank and Chinese actors. The last case is embedded in the *resource scarcity-sustainable development-ecological modernization-multipolarity-nexus*, which will be presented before analyzing it.

The interim conclusions will highlight essential insights for the argumentation as they are situated at the end of each of the thematic sections, while the central research question will be answered according to each case. The last chapter of this thesis will make final conclusions, recall the contribution of the master thesis, discuss its limitations and provide an outlook. The structure and levels of each cases' analysis will be reasoned in the following chapter as they refer to the conceptual-methodological framework.

2. Framework of the Master Thesis

The approach of this master thesis combines a perspective of global history as the main point of departure with an agency-oriented foreign policy framework as an analytical tool. Thus, it addresses Menga's proposal to approach (transboundary) water politics from an interdisciplinary perspective in order to increase understanding of relevant issues and to explore new and exciting avenues since interdisciplinarity enjoyed only relatively recent attention in this field. While Menga's non-exclusive list includes the field of international relations, (global) history is not mentioned[5], increasing this approach's originality.

2.1 The Conceptual-Methodological Framework

As this thesis seeks to point out the interconnections of the realization of the respective projects, it will apply *Entangled History* as a perspective[6] and thus the main point of departure for the analysis. Referring to Bauck and Maier, this historical perspective in historiography builds upon the assumption that (isolated) states cannot be the only unit or category for writing history, arguing that the various entities were shaped through processes of interaction, requiring one to uncover these processes[7]. This brief definition already emphasizes the relevance of space and cross-border contacts, indicating that *Entangled History* is influenced by several theoretical and methodological considerations that have been debated by scholars of various disciplines in the last decades[8]: methodological nationalism and the spatial turn, inter alia. Both will be briefly discussed in order to show the origin and relevance of *Entangled History.* Thereafter, the relationship between time and space will be pointed out as a necessary complement for this perspective and thus for the approach of this thesis.

The criticism of methodological nationalism, meaning the reductive focus on the nation-state as a natural unit of analyzing social processes[9], as well as the need to move beyond Eurocentric perspectives such as by following Chakrabarty's claim to 'provincialize'

[5] Menga refers to the works of Sneddon and Fox (2006), Warner and Zeitoun (2008), Wegerich and Warner (2010) and Julien (2012) (Menga 2016: 704f.).
[6] Entangled History can also serve as a concept in historiography that offers a framework for analyzing historic power structures and their embeddedness in space (Bauck and Maier 2015).
[7] Ibidem.
[8] Ibidem.
[9] Amelina et al. 2012: 2.

Europe[10], led to new approaches and departures of writing global history[11]. These have been addressed by debates on the *spatial turn*, which criticized the emphasis on temporal history writing, neglecting the role and complexity of spaces as historic accounts, drawing attention solely to nation-states and so-called civilizations[12].

By the middle of the nineteenth century, a certain spatial hierarchy asserted itself, whereby the "national subjugated all other spatial units because it appeared to be the most effective source of sovereignty"[13]. According to Middell and Naumann, one century later awareness rose that the nation-state lost its dominant role in framing social action since the spatial structure seemed to disperse and the other spatial units are engaged in a process of recombination. However, only in the 1990s, the emergence of a so called "global governance" as a new dominant pattern was observed to asses a demanding and radically new condition, triggered by the dissolution of the regulatory mechanisms of the Cold War era and the growing importance of international organizations and transnational regimes. However, from a contemporary perspective, this view did not turn into reality and the current spatial order does not consist of a clear vision. Instead, new forms of governance are negotiated by various political classes globally, indicating that none of the international organizations, such as the International Monetary Fund and the World Bank, or the UN Kyoto Protocol are (en)abled to take over global leadership. Moreover, the current international regime is shaped by different degrees of integration and rights of participation and a focus on regional agreements[14]. Thus, Middell and Naumann argue that interpreting globalization calls for a radical re-thinking of the co-relations between various spatial levels, to consider the multiple actors engaged in worldwide interactions as well as the "plurality of locations incorporated in the global worldwide entanglements"[15]. This brief outline illustrates that significant changes in the production of socio-historical knowledge over the last few decades have been jointly influenced by internal re-thinking within the social sciences as well as by the general political context[16],

[10] Contributing to the field of post-colonial studies, Chakrabarty confronts himself with a central contradiction throughout his influential book: "European thought is at once both indispensable and inadequate in helping us to think through the experience of political modernity in non-Western nations, and provincializing Europe becomes the task of exploring how this thought-which is now everybody's heritage and which affects us all-may be renewed from and for the mar- gins" (Chakrabarty 2000: 16).
[11] Schulz-Forberg 2013: 47.
[12] Ibid: 44
[13] Middell and Naumann 2010: 150.
[14] Ibid: 150 f.
[15] Ibid: 152.
[16] Werner and Zimmermann 2006: 30.

which coincides with geo-political contexts, which the chosen large dam projects are embedded in. However, some scholars, such as Schulz-Forberg, sound a notion of caution to the emphasis on space, arguing that time and space are connected and thus suggest a spatio-temporal approach since history is a "third category, distinct from, yet dependent on and related to both time and space"[17]. He points out that approaches that aim at showing and following entanglements need to be further developed to see when and where they occur in order to facilitate a sound dialog between different levels, while observing that a theme-based approach in global history writing replaces an event-based approach[18]. This corresponds to the approach of this thesis since large dams are the object of study. One of the accounts Schulz-Forberg is referring to is Osterhammel's "The Transformation of the World: A Global History of the Nineteenth Century"[19]. Osterhammel states that his approach of portraying an epoch is similar to the one in Christopher Bayly's work "The birth of the Modern World" (2004), since both do not see a contrast between comparisons and global connections, and suggest that relationship analysis and comparison should be combined. Osterhammel argues that not all comparisons need to follow a strict historical methodology since the controlled play with associations and analogies can be even more fruitful[20]. This addresses the aim of this thesis: to uncover not only entanglements but also parallels or similarities through time and space. Osterhammel describes the distinction between global historians who apply a horizontal-space focused approach and those who apply a vertical-time focused one[21]. Instead, he seeks to address space and time equally and thus highlights the importance of temporal dedifferentiation to acknowledge the spatial turn and thus to prevent the risk of geographical or even geo-political determinism[22]. To explain the quintessential relationship between time and space for historians, he refers to Reinhart Koselleck:

"Every historical space constructs by virtue of the time through which it can be measured, whereby it becomes politically and economically controllable. Temporal and spatial questions remain entangled, even though the metaphorical strength of all temporal images initially originates from spatial conceptions"[23].

[17] Schulz-Forberg 2013: 44.
[18] Ibid: 48f.
[19] The book was for the first time published in German language in 2009.
[20] Osterhammel 2010: 16.
[21] He refers to the approach of Robert's "The Twentieth Century. The History of the World, 1901 to 2000" (1999) and Hobsbawm's "Europäische Revolutionen" (1962) (Osterhammel 2010: 18).
[22] Ibid: 21f., 129.
[23] This quote was translated by the author of this thesis, originally it states: "Jeder geschichtliche Raum konstruiert sich kraft der Zeit, mit der er durchmessen werden kann, wodurch er politisch und ökonomisch beherrschbar wird. Zeitliche und räumliche Fragen bleiben ineinander verschränkt, auch wenn die

This shows that not only phenomena across borders are entangled but that even the dimensions applied to uncover them are themselves entangled. Having the theoretical origins of *Entangled History* and the relationship between time and space in mind, the importance of *Entangled History*'s aim is striking: it seeks to uncover dependencies, circulations and interferences as well as the multi-directional character of transfers, such as of ideas, knowledge and practices[24]. This goes hand in hand with global history's aim of discovering the connection between different regional settings across borders[25]. Komlosy argues that objects of discussion take shape on different levels: the international, the regional, the national and the local. Since they coexist, the relation - entanglement - and mediation between the overlapping spatial levels should be examined[26].

Thus, this analysis of large dam projects will generally start with the *international level of financial negotiations*, continue with the *national level of project planning and promoting* and finalize with the *local level of construction*. Besides, the *regional level of negotiating legal agreements* plays a role for two cases, fitting to Middell and Nauman's characteristics of the contemporary spatial order. However, in the case of the Grand Ethiopian Renaissance Dam, the discussion will actually start with the regional level since it lays the foundation for the international one. This asymmetrical composition of levels addresses the unique character and relevant features of each project instead of enforcing a determined structure. It thus considers Conrad et al.'s claim that studies applying *Entangled History* have a rather fragmentary character since they address manifest problems and situations[27]. The analysis will also highlight the different degrees of entanglements as the intensification of transportation and communication technologies does not necessarily translate into higher levels of interdependency[28].

The next chapter will discuss the analytical framework that is applied to complement *Entangled History* as the main point of departure. It addresses Bauck and Maier's concern that a limited perspective on entanglements can lead to the reaffirmation of stereotypical hierarchies of spatial categories (global to local) and the fading out of immanent power asymmetries[29] by analyzing involved actors and their scope of bargaining power.

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metaphorische Kraft aller Zeitbilder anfangs den räumlichen Anschauungen entspringt." (Koselleck 2000: 9 cited in Osterhammel 2010: 129f.).

[24] Bauck and Maier 2015.

[25] Komlosy 2011: 9.

[26] Ibidem.

[27] Conrad et al. 2002 in Bauck and Maier 2015.

[28] Bauck and Maier 2015.

[29] Ibidem.

2.2 The Analytical Framework

The analytical framework is mainly based on Gebe's foreign policy considerations[30], and is complemented by Hudson's.

In general, foreign policy can be understood as the sum of external relations between an independent actor (usually a state) and other actors (state and non-state) within the international system[31]. Foreign policy analysis (FPA) is a subfield of international relations (IR), assuming that "all that occurs between nations and across nations is grounded in human decision makers"[32], which act individually or in groups[33]. According to Hudson, FPA has therefore an emphasis on *agent-oriented* theory: states do not have agency because they are abstractions and thus not agents[34]. Hudson argues that only humans can be real agents and their agency manifests itself in international politics and their consequences[35]. Based on this, FPA is also *actor-specific* since humans "[are] not interchangeable generic rational utility maximizers"[36]. She advocates for gathering concrete and specific information about the decision-makers to explain a certain action/crisis[37], which this analysis seeks to accomplish: it analyzes the strategies of political leaders - of prime ministers or presidents and of other relevant decision-makers[38]- regarding the project's financing, having consequences for the regional, national and local project level and vice versa. This approach goes hand in hand with other hallmarks of FPA since it focuses on multiple levels by considering multiple explanatory factors from an interdisciplinary perspective, making FPA to be considered a "radically *integrative* theoretical enterprise"[39]. Gebe goes one step further by arguing that choices in the decision-making of political leaders are largely influenced by their

[30] Gebe does not apply a specific FPA approach but rather points out common considerations to establish a framework fitting to Ghana's foreign policy since independence (Gebe 2008: 162).
[31] Ibid: 162.
[32] Hudson 2005: 1.
[33] Ibid: 1f.
[34] Ibid: 2.
[35] Ibid: 2f.
[36] Ibid: 3.
[37] Ibidem.
[38] The analysis of the Aswan High Dam and the Akosombo Dam focuses mainly on the agency of Nkrumah and Nasser since they were significantly shaping the negotiations. Since the construction period of the GERD coincides with the change of several heads of state in Ethiopia and since the project is negotiated by different governmental representatives, here a variety of actors will be discussed. This approach is similar to the one of Zeitoun et al. who discuss the elite cadre of decision-makers, meaning the heads of state, negotiators, and high-level members of water bureaucracies. While they regard their actions as adding up to the state's action (Zeitoun et al. 2016: 273), this thesis seeks to maintain an agent-oriented and actor-specific perspective.
[39] Hudson 2005: 2.

cognition, perceptions and beliefs[40], which justifies the assumption underlying one of the guiding questions of this thesis. The focus on the agency of specific political leaders in foreign policy-making in specific moments and on various spatial levels, highlighting the interconnectedness, is essential to address Wimmer and Glick Schiller's criticism of IR as a discipline that enforces methodological nationalism by regarding nation-states as the adequate and natural unit of analysis[41].

Apart from this consideration, Gebe points out that foreign policy is shaped by the international system. Based on the realist school in IR, there is no central authority that determines the actions of states but rather the international system influences foreign policy making by offering incentives and constraints. For instance, in the context of the Cold War, newly politically independent states could choose between liberal capitalism, the socialist path of economic development, or non-alignment[42]. Thirdly, Gebe highlights that there is no clear distinction between international (foreign) politics and domestic politics since they affect each other. They can shape but also constrain each other. For instance, political leaders' decision making is influenced by domestic structures, such as societal pressure, class and economic strata and political culture[43]. With regard to transboundary water politics, Menga points at the correlation of these two policy dimensions as well[44].

Fourthly, Gebe argues that the ability to achieve the set goals and to influence activities and actions within the international system depends significantly on the country's power resources, such as its size and geographical location, the available material and human resources, the degree of the latter's application (e.g. industrial production), the military arsenal as well as the degree of technological development. These tangible resources need to be analyzed in connection to intangibles, such as the leadership, diplomacy and the quality of government[45]. This will be mainly considered when analyzing the actor's bargaining power, which is understood as the ability or "the power that someone has in discussions with someone else to reach an agreement that is to their advantage"[46]. Hereafter, the terms "intangible power resources" or "intangibles" and "tangible power

[40] Gebe 2008: 163.
[41] Wimmer and Glick Schiller 2002: 304.
[42] Gebe 2008: 163.
[43] Ibidem.
[44] Menga 2016: 705; see also: Allan and Mirumachi (2010: 15), Fearon (1998: 289-290).
[45] Gebe 2008: 164.
[46] Cambridge University Press 2018.

resources" or "tangibles" will be applied for a clearer understanding of their meaning. The causal link between the outcome of a negotiation and the actor's interests and bargaining power is strongly supported by Zeitoun et al. (2014)'s argument regarding transboundary water treaties[47]: "we expect any existing arrangement between actors over […] flows to reflect not only their perspectives, but also their capacity to shape the process which led to the arrangement"[48]. With regard to analyzing the leverage of recipient countries in general aid relationships with donor countries, Feyissa refers to Whitfield and Fraser's concept of "negotiating capital", arguing that the scope of the recipient countries depends "on the capacity of the political leadership to make use of enabling socio-economic and political structures"[49]. Whitfield and Fraser's general assumption on donor-recipient relations is in accordance with the one of this thesis: "aid receiving countries are not passive recipients. Despite dependence, African governments almost always have a degree of choice over whether or not to accept aid from a particular source at a particular time"[50].

This quote implies a notion of *African agency* which constitutes - next to *third way* and *space of maneuver* - one of the three elements that shape the central concept of this thesis, the *Third Space of Maneuver*, which needs to be further clarified. Besides re-constructing history from the perspective of African actors, the focus on the agency of these actors aims at breaking with contemporary analyses of Chinese activities in Africa and older debates on dependency that depict African developments as purely decided by external capitalism[51], while responding to politicized statements, such as that of Henry Kissinger in 1969:

"Nothing important can come from the South. The axis of history starts in Moscow, goes to Bonn, crosses over to Washington, and then goes to Tokyo. What happens in the South is of no importance"[52].

By acknowledging the persisting obedience to certain terms of economic relationships, African agency is not understood as needed to be proven by enforcing structural changes but rather as the power that specific African political leaders achieve via bargaining[53]

[47] The quote relates to the scholars' proposal of an international transboundary water interaction analysis and diplomacy framework (Zeitoun et al. 2014).
[48] Ibid: 175.
[49] Feyissa 2011: 789; See also: Whitfield and Fraser 2010: 347.
[50] Whitfield and Fraser 2009: 28.
[51] Mohan and Lampert 2012: 95; See also: Leys 2006.
[52] Kissinger 1969 cited in Prashad 2012: 4.
[53] Kragelund and Carmody 2016: 7f.

with regards to a specific project. Embedded in the Cold War context, Kissinger's quote neglects the outcome of organized anti-colonial struggles by those newly independent African states that started to exercise non-alignment as a policy to engage and exploit the Cold War tensions for their own interests[54]. By attracting economic assistance from both, the Soviets and the Americans, in order to stimulate a sense of competition between the two powers, while reducing the influence of former colonial powers, the decolonization-Cold War context offered the possibility for a "'third way' to pursue an anti-imperial agenda"[55]. According to Burton, Cold War competition provided certain maneuvering spaces in terms of foreign policy making[56]. Thus, a *Third Space of Maneuver* is generated when actors actively take advantage of a seemingly binary context by pursuing a certain foreign policy strategy that creates an alternative option, provided by the same context, in order to realize a specific project and thus to pursue their own interests.

As a fifth aspect, Gebe mentions the translation of national interest and the subsequent principles into foreign policy making, which is again influenced by a country's leadership, historical circumstances and the geo-political environment[57]. Hence, the relevant principles in each historic and geo-political context will be presented by constructing a nexus that brings together overlapping or even conflicting aspirations determining the zeitgeist, while mirroring the government's domestic and foreign policies. Beforehand, the consulted sources need to be discussed.

2.3 Discussion of Sources

The content of this master thesis relies on relevant literature mostly in the English language, such as journal articles, monographs and book chapters. The selected authors are not only situated in various academic fields, such as economics, international law, political sciences, (diplomatic) history, international relations, but have various national backgrounds, while a significant number originates from the respective country of study. The selected sources vary significantly in terms of their publication dates as this master thesis covers events over almost a century. It intentionally relies on accounts that were published shortly after the event of interest occurred as well as on quite recent ones. As some accounts address the same aspect, chronology and argumentation was cross-checked to assess congruence as well as discrepancies. The recently published accounts

[54] Byrne 2015: 913.
[55] Ibid: 917.
[56] Burton 2017: 8f.
[57] Gebe 2008: 164.

generally bear the advantage of including updated and additional information as they refer to only then accessible archival material, governmental correspondences, protocols and personally conducted interviews, which is essential for tracing detailed diplomatic relations. Prior accounts have the advantage of presenting the course of an event, such as a negotiation process, in a detailed and chronological manner by referring to influencing historical circumstances and enabling the author to reconstruct the course of action and counteraction. Due to the limited availability of accounts for certain passages, the author of this thesis has had to refer to specific and as reliable classified key sources.

Additionally, the content of this master thesis relies on official governmental sources of the respective countries, such as homepages, development plans and public speeches, and on journalistic articles of known news agencies, such as Bloomberg, Reuters, Deutsche Welle, the Economist, Financial Times, and on publications of relevant organizations, such as International Rivers. In case a specific interest arises, media from within the respective country, such as the Ethiopian Herald for Ethiopia, were consulted to assess the government's presentation of events. Besides these, reports and accounts of the World Bank, the United Nations and the World Commission on Dams (WCD) were consulted to access relevant information. Having this as well as the approach, structure and research focus of this master thesis in mind, the following chapter will highlight the differentiation between the present work and the existing literature.

3. State of Research

Large dams can be and have been discussed from various angles. Arguably the most extensive body of literature on large (hydropower) dams assesses the project's value and impacts[58], which is reflected by accounts on the first two case studies as much attention is paid to their social, economic[59] and ecological[60] effects. Moreover, it is less surprising

[58] See for instance: Tilt et al. (2009); Biswas et al. (2011); Goldsmith and Hildyard (1986); McCully (1997); Scudder (2005); For more information: see chapter 8.1 of this thesis.

[59] For the Aswan High Dam: Biswas (2002); Abu-Zeid and El-Shibini (1997) assesses the many benefits of the project for Egypt despite the controversies; Scudder (2003) addresses the impact on Egypt and of the resettlement of 50,000 Egyptian Nubians; Reynolds (2017) addresses the creation of Aswan City; Strzepek et al. (2008) assess the dam's value for the Egyptian economy.

For the VRP/Akosombo Dam: Ofori et al. (2016) assess the sustainable livelihood adaptation of dam-affected communities in the Volta delta; Johnson et al. (2015) facilitate a cultural geographic analysis regarding displacement/resettlement; D'Auria and Sanwu (2010) address resettlement and urban planning; Miescher (2012) assesses the creation of the Akosombo township; Tsikata (2006) assesses the long-term impact on lake-side communities; Lumsden (1973), Shapiro (2002), Miescher (2014a) address issues of resettlement; Derban (1999) assess the Volta lake's impact on public health.

[60] For the Aswan High Dam: Walton (1981) addresses several ecological issues; Hassan et al. (2017) evaluate the evaporation from the dam's reservoir; Hassan (2007) writes on the archaeological sites that

that several accounts present a history of (large) dams in different world regions over time, as well in the context of development[61].

The body of literature on *critical water studies* contributed to the fact that water is no longer seen solely as a technical issue as water resource management, in which large dam projects are embedded in, are intertwined in political processes; for instance, when having transboundary consequences that lead to the promotion of certain politically constructed narratives, or when being constructed to serve certain geo-political objectives[62]. The first aspect is addressed when analyzing *hydro-diplomacy*, meaning the efforts of different state actors regarding a shared water resource for the sake of regional cooperation and preventing conflicts while balancing national interests[63]. Thus, the study of *transboundary water politics* or *hydropolitics* is concerned with seeing water projects in international river basins as having the potential for causing conflict or cooperation or, more recently, how both can coexist[64]. This thesis intersects here when analyzing the regional level, though, focusing on its relevance for financial co-operations.

Another body of literature which this thesis intersects with are those historical works on river basin development and multipurpose dams that analyze the complex interplay of geo-politics, diplomacy, economic development and nation-building in the Cold War context, while assessing the essential role of technical assistance, the universalized models of river basin development and thus address certain actors[65]. By focusing on the

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were saved by the UNESCO due to the construction of the Aswan High Dam; Abd-El Monsef et al. (2015) assess the environmental and health impact of the dam after 50 years; Moussa (2013) assesses the deposition of the dam's reservoir in order to estimate its life span; Elshabini et al. (2016).
For the VRP/Akosombo Dam: Cheng (1980) analyzes coastal erosions; Obeng and Fiagbe (2005) analyze scenarios of low water levels at the Akosombo Dam; Obeng (1977) assess the impact of the Volta lake; Gyau-Boakye (2001) focus on the dam's environmental impact and the effects of climate change; Agbemabiese and Byrne (2005) assess the commodification of the Volta river.

[61] Schnitter (1994) describes dam structures in various parts of the world over time; Nüsser (2014) presents a history of large dams in Asia; Biswas and Tortajada (2001) provide an overview of the connection between dams and development from a global perspective; Everard (2009) provides a complex overview on the history of dams to re-construct water politics and the changing perceptions on dams.

[62] Menga 2017: 102; See works, such as, Mollinga (2008), Wegerich and Warner (2010), Allan (2001), Norman et al. (2016) and Sneddon and Fox (2016).

[63] Nasr and Neef 2016: 972.

[64] Menga 2016: 704; See works, such as, of Nicol et al. (2012) who talk about "global high politics of water"; Elhance (1999) sees cooperation and conflict as two contradicting options; Mirumachi (2015) and Earle et al. (2010) see the possibility of co-existence.

[65] Biggs (2006) assesses the role of the USBR in the Mekong Valley in terms of water management and for nation-building; Cullather (2002) assess the role of Afghanistan as a buffer state and the links to modernization efforts via dams; Ekbladh (2002) analyzes the diplomacy efforts of the TVA president Lilienthal and the TVA as a symbol for international development activities of the US; Evenden (2009) focuses on river development in Canada; Klingensmith (2007) analyzes the TVA and the Damodar Valley in India (DVC) regarding the national discourse of progress, they are embedded in, and the actual benefits and costs; Sneddon and Fox (2011) assess the USBR's function as a geo-political agent.

active implementation of non-aligned strategies in the Cold War context, this thesis intersects with *new historicism*, which is advocated by scholars who assess how economic relations and political structures in Asian, African and Latin-American societies are shaped in multiple ways by geo-political relations - defined in terms of an East-West dichotomy - and how these relations again influenced geo-political calculations[66] - here in terms of diplomacy and foreign-policy making. Moreover, it contributes to the manageable works that actually acknowledge the co-existence of the Cold War and of decolonization processes[67]. In terms of the last case study this thesis contributes to a more recent body of literature that examines the relevance of Chinese actors in the global dam industry[68] and the agency of African actors in shaping respective co-operations[69].

The focus on political leaders does not constitute a novelty. Wittfogel introduced in his seminal book "Oriental Despotism" (1957) the concept of a hydraulic society, discussing how governmental representatives in Asia used the construction and management of large-scale water infrastructure for monopolizing political power. By discussing cases of various large-scale social engineering schemes, Scott argues in his book "Seeing like a State" (1998) that their failure is linked to the presence of authoritarian regimes, who are caught in the ideology of "high modernism" that assumes every aspect of human life can be improved by science. Thus, a number of scholars assess how ideas of modernization are spread by elites when realizing dam projects, using them to preserve social control[70].

However, this thesis tries to understand political leaders as actors maneuvering between their personal interests and political agendas, being caught in the aspirations of a certain nexus, facing the challenges and opportunities the latter provides. Similarly, Nüsser

[66] Sneddon and Fox 2011: 451; See: Engerman (2004); Gilman (2003); Latham (2000); Westad (2007).
[67] Byrne (2015) examines the evolution of the Third World movement in the decade after the Bandung conference, drawing on Yugoslav and Algerian archival sources; Based on material from Cuban, American and European archives, Gleijeses (2002) presents the role of Cuba's foreign policy in the Cold War, focusing on its foreign policy regarding Africa between 1959 and 1976, escalating with US policy making towards the continent.
[68] Verhoeven (2012) discusses the role of Chinese actors in the global dam industry and thus within the new global political economy; Urban et al. (2017) analyze the role of Chinese dam builder in transboundary river management in South-East Asia; Bosshard (2010) and McDonald et al. (2009) present how Chinese actors go global in terms of dam construction; Tan-Mullins et al. (2017) evaluate the behavior of Chinese stakeholders in hydropower projects in Ghana, Nigeria, Cambodia and Malaysia.
[69] Hensengerth (2013) analyzes the question of environmental norms in the case of Sinohydro's engagement with the Bui dam project in Ghana and the role of the host institutions; Kragelund and Carmody (2016) assess African agency in terms of Afro-Sino relations in Angola and Zambia; Urban et al. (2015) show that the recipient state is key in shaping dam investments by Chinese actors in the case of the Bui dam.
[70] Swyngedouw (1999) focuses on Spanish waterscapes; Kaika (2006) focuses on dam's as icons of modernization and its consequences in Greece; Giglioli and Swengendo (2008) focus on the water crises in Sicilia in summer 2002.

(2014) discusses the history of dams in Asia in the context of changing development paradigms, following the observation that the huge body of literature on large dams seldomly framed them "within a larger picture of contested development paradigms across changing historical and political contexts"[71]. Khagram's book "Dams and Development" (2004) presents a comparative analysis of the political economy of large dam projects in China, India, Brazil and South Africa, considering the change in attitudes towards large dams and thus of international agencies, closing up with presenting the World Commission on Dams (WCD) as an innovative attempt at creating new standards among conflicting stakeholders. While this master thesis intersects with both of their foci, it contributes by paying attention to projects in Africa, while tracing global connections. In this regard, scholars have compared projects either located within the same country or in different countries/continents in terms of a specific focus, such as social sustainability[72]. The author of this thesis is not aware of any scholarly work that considers the selected three case studies as the main subject of discussion, let alone analyzing them regarding entanglements and parallels. The following sections will summarize key literature on each project, while indicating essential accounts for the content of this thesis:

Apart from addressing earlier attempts of Nile control[73] and Egypt's water scarcity[74], scholarly work addressing the Aswan High Dam includes historical and economic accounts[75], assessments of its symbolic meaning[76] and accounts that treat the project as the result of the governing of an authoritarian post-colonial regime[77]. By trying to avoid this perspective, this thesis' approach is in line with Shokre's stance in his article

[71] Nüsser 2014: 2.
[72] Miescher and Tsikata (2010) analyze the historical links between the Akosombo Dam and the Bui dam, the third dam to complete the VRP. Urban et al. (2015) compare two Chinese built and financed hydropower dams, the Bui dam (Ghana) and the Kamchay dam (Cambodia) in terms of social sustainability; Siciliano et al. (2018) compare the Kamchay dam (Cambodia), the Bakun dam (Malaysia), the Bui dam (Ghana) and the planned Zamfara dam (Nigeria) in terms of their decision-making process from a socio-technical and energy justice perspective; Adams (2012) contrasts the Grand Ethiopian Renaissance Dam and the Gibe III along the Ethiopian Omo river regarding the effect of more impact assessments and stricter funding standards on (expected) environmental and social outcomes. Yildiz et al. (2016) analyze the internal drivers, such as energy security, and external forces, such as the promotion of peace, for the construction of the GERD and the Inga dam in DR Congo; Menga (2016) compares the GERD and the Rogun dam (Tajikistan) in terms of forming national identities.
[73] Waterbury (1979); Tvedt (2006).
[74] Dolatyar and Gray (2000); Hillel (1994).
[75] Little (1965); Fahim (1981); Holz (1968) provides a brief history of the project and its relevance for the Egyptian economy; Abu-Shumays (1962) assesses economic and technical aspects of the project.
[76] Meital (1999); Moore (1980).
[77] For instance, Lemons (2017) applies the theoretical considerations of Scott's "Seeing like a State" (1998) as well as Mitchell's "The Rule of Experts: Egypt, Techno-Politics, Modernity" (2002) for analyzing the project, embedded in the idea of "high modernism" and enforced by an authoritarian military regime; Waterbury (1979); See also chapter 9 of Fahim (1981).

"Hydropolitics, Economy, and the Aswan High Dam in Mid-Century Egypt" (2009) in terms of exploring the project's links with the general fascination of multi-purpose river development. While he focuses as well on the influence of the Tennessee Valley Authority (TVA), he goes on with exploring global influences on economic statistics, picking up on another more recent body of literature[78], which is not relevant for this thesis. Instead, other accounts are essential to assess the course of financial negotiations, such as the work of Borzutzky and Berger (2010) who analyze foreign-policy making from the perspective of the US, and of Staple (2002), assessing it from the perspective of the World Bank. The latter appears to a certain extent as an update of Rycroft and Szyliowicz (1980)'s article, which focuses on the technological dimension of decision-making, providing an even more detailed narration, while Staple accessed additional information, such as World Bank documents and interviews. Additionally, several accounts, focusing on Sudanese-Egyptian foreign relations and on the negotiations of the "1959 Nile Waters Agreement", which sanctioned the project, will help to analyze the regional level[79]. Mossallam (2014)'s account is essential for assessing the local level of construction as it is based on oral history interviews conducted with the actual workers and technicians[80].

Scholarly work addressing the Volta River Project (VRP) and its center piece, the Akosombo Dam, include articles that provide an either partial or complete descriptive chronology of the VRP/Akosombo Dam's planning process[81]. Other accounts briefly address the project's role for Ghana in terms of development or situate it in the context of decolonization, however, not focusing on the whole implementation process[82]. Moxon's book (1969) on the history of the Akosombo Dam constitutes one of the key works, however, his account appears romanticized as he, a British colonial administrator,

[78] This more recent body of literature explores the connections of the Nasserist state in terms of state-led economic development and social welfare with then already existing institutions, knowledges and practices in various domains, such as the social sciences, state building and economic policy as the result of, inter alia, exchange of expertise: Mitchell (2002); El Shakry (2007); Heydemann and Vitalis (2000).

[79] This chapter will mainly draw on accounts that consider original reports ("The Nile Waters Question" (1955)) and interviews: Baddour (1960)'s account sets the negotiation in the context of Sudanese-Egyptian relations, Abdalla (1971)'s account concentrates on the history of the agreement from 1952-1959, while Batstone (1959)'s and Waterbury (1987)'s accounts discusses the issue from a legal perspective. The extracted information was crosschecked with more recent literature (e.g. Woldetsadik 2015).

[80] In this regard the PHD dissertation of Bishop, "Talking Shop: Egyptian Engineers and Soviet Specialists at the Aswan High Dam" (1997) needs to be mentioned, which addresses the interactions between the Egyptian and Soviet engineers who were working on the dam.

[81] Hilton (1966); Special Correspondent (1956); Jopp (1965)'s account was published by the Volta River Authority itself.

[82] Quaye (1992)'s short article points at the lessons learned from the VRP; Hove (2013) assesses only one element of the VRP: the initial idea of an integrated aluminum industry, covering only the period between 1954 and 1957.

was caught himself in the aspirations surrounding the project[83]. The latter are partly addressed by Miescher and Tsikata (2014) as they compare the Akosombo Dam and the Bui dam (2009-2013), the last dam component of the Volta River Project (VRP), considering the discourse of modernization and development in the Ghanaian context.

A significant contribution to this master thesis is Hart's extensive study (1977[84]/1978) on the VRP's history, assessing the interests of involved actors, its outcome and side effects, questioning the project's value for Ghana in economic terms. As Hart presents passages of original reports and assembly debates, he provides important data to be re-interpreted. Likewise, Miescher's (2014) article significantly contributes to this thesis as he draws on archival material and interviews in order to make sense of the multiple actor's attempts to shape the project's outcome. While his account is essential to extract information for the project's planning and promotion, the course of financial negotiations is limited. Noer's account (1984)[85] provides a detailed overview of the diplomatic relations between the Kennedy administration and Nkrumah's government from the perspective of the United States, which helps to assess and analyze Nkrumah and his government's negotiation strategies by turning the perspective. As his account focuses on the Kennedy era, Anglin's article "Ghana, the West, and the Soviet Union" (1958) is essential to assess Ghana's early diplomatic relations, inter alia, with the Eisenhower administration. Further accounts on the subject assess the role of other involved actors[86]. The recent account of Amankwah-Amoah and Osabutey (2018) addresses the Volta River Project from the perspective of international business, criticizing it regarding its long-term outcome[87].

Even though the Grand Ethiopian Renaissance Dam (GERD) is, by the time of writing this thesis, not yet operational, it received much attention by scholars, explained by the project's scope, its controversial implementation and its transboundary effects for the (Eastern) Nile basin: some scholars assess its expected impact and value for Ethiopia as well as for downstream Sudan and Egypt[88]. Others focus in particular on potential effects

[83] D'Auria and Sanwu 2010: 1.
[84] There is a later version of Hart's study published in 1980.
[85] A very similar account was published a few years later as a Master Thesis: Metzmeier (1989).
[86] Decker (2011) focuses on the role of the US firm Kaiser Industries and its subsidiary; Kalitsi (1999) examines the role of the Volta River Authority (VRA) that operates the Akosombo Dam.
[87] While the actual analysis is quite brief, it relies much on existing literature (e.g. Miescher (2014)) and questionable media accounts, while claiming to use archival material.
[88] Teklemariam et al. (2017) address the potential of bank erosion; Nigatu and Dinar (2015) propose an 'allocate-and-trade' institution to manage the eastern Nile River Basin for shared economic benefits; Kahsay et al. (2015) evaluate its economic impact on Sudan, Egypt and Ethiopia, arguing in the long-term

on the Aswan High Dam[89]. The history and politics of water development in the Nile basin is well documented as controversies over Nile waters, the legacy of colonial agreements and the efforts for cooperation, such as, the Nile Basin Initiative (NBI), attracts interest from various disciplines[90]. One body of recent publications relate to the project's meaning within the regional context by assessing in how far Ethiopia challenges Egypt's hegemonic role[91] or by assessing the potential for cooperation[92], which are not the foci of this thesis. However, their data concerning the strategies and actions of various actors is helpful for re-interpretation. While some scholars advocate for considering energy, water and food concerns when analyzing the regional power relations,[93] and others assess to what degree the project reflects on the standards of the World Commission on Dams (WCD)[94], this thesis also considers global aspirations and paradigms, setting the WCD's report as shaping the predominant nexus. Only a few scholars address the relevance of Chinese actors in financing and constructing dam projects in Ethiopia, while others look at the relations between Ethiopia and the World

all countries would enjoy economic gains, for instance, when applying a power trade scheme; See also: Jeuland et al. (2017); Batisha (2015).

[89] Mulat and Moges (2014)'s simulation of the GERD's filling phase indicates that the - planned - period of 6 years would have only insignificant impacts on the Aswan High Dam in terms of the current water demands for irrigation; El-Nasher and Elyamany (2017)'s evaluation suggests certain policies that might actually increase the water availability for Egypt due to the GERD; Abdelhaleem and Helal (2015)'s analysis concludes that Egypt's water share should not be reduced more than 5-15% to create a win-win situation; Habteyes et al. (2015) discuss benefit sharing measures, which could protect downstream countries from any negative impact of the GERD.

[90] Waterbury (2002) takes the Nile Basin as a lens to assess dynamics shaping cooperation and the emergence of regimes, while Wehling (2018) assesses the influence of international law on the latter; Yihdego and Rieu-Clarke (2016) focus on the relevance of the concept of fairness for compliance and commitment in international law; Cascão and Nicol (2016) pay attention to the GERD as a result of initial regional efforts; Several other scholars provide a legal-diplomatic history of the Nile Basin and essential agreements: Bayeh (2016), Woldetsadik (2015), Salman (2013, 2016), Mekonnen (2010, 2017), Upadhyay and Gaudel (2017), Okidi (1994), Degefu (2003), Collins (2002) and Garretson (1967); Arsano (2007).

[91] Cascão (2009) analyzes the changing power relations between upstream and downstream countries; Cascão and Nicol (2016) show the changing power relations and argue that the GERD has potential for future cooperation, while Tawfik (2016a) challenges the argument of scholars like Zeitoun et al. (2016), applying a counter-hegemonic framework, by arguing that the GERD is indeed challenging Egypt's hegemonic position but that the outlook of a new Nile Basin order is uncertain and will not lead to more faire sharing of water sources.

[92] Tawfik (2016) argues that benefit-sharing and cooperation depends on the implementation of respective policies; Motlagh et al. (2017) examine compensation options to enhance cooperation through trust-building; See also: Abdelahdy et al. (2015) contrast the concept of Ethiopian nationalism, which surrounds the GERD, with the concept of hydrosolidarity to analyze the new hydropolitical map in the Nile Basin; Gebreluel (2014) argues that the GERD will rather end Africa's oldest geopolitical rivalry than causing a military confrontation; Whittington et al. (2014) present elements for a win-win situation for Egypt, Sudan and Ethiopia; See also: Cascão and Nicol (2016); Yihdego et al. (2016); Hammond (2013).

[93] Nasr and Neef (2016) argue that food, water, and energy concerns are intrinsic components that need to be considered for the studies of hydro-hegemony and counter-hegemony; Basheer et al. (2018) focus on the interrelation between cooperation and the Food, Water, Energy Nexus (FEW).

[94] Chen and Swain (2014) analyze in how far the GERD reflects upon the WCD's seven strategic priorities.

Bank[95]. While the Egyptian scholar Tawfik (2016) argues that the dam's financing from domestic resources is one tactical move of the Ethiopian government, strengthening its position in regional affairs[96], this thesis considers self-financing as the main strategy to actually realize the project on its own terms and in contrast to options provided by the World Bank and Chinese actors. By discussing the case according to different levels, the applied approach aims at relativizing the strong scholarly emphasis on the regional relations. In terms of the national level of planning and promoting, relevant information is extracted - just as for the local level - from media accounts as well as from scholars, such as from Belay (2014)'s mass media analysis and Menga (2016)'s[97] article that assesses in how far the ruling elite frames the Grand Ethiopian Renaissance Dam (GERD) as a foreign policy matter by enhancing a friend-enemy distinction. This constitutes only one element in terms of promoting the dam as this thesis focuses likewise on the national dimension and the engagement of actors on various levels. The state of research and the argumentation of the thesis considered publications till mid-August 2018.

Part I

4. Establishing Large Dam Expertise

The first subchapter seeks to provide a basic understanding of "large dams". The subsequent chapter will discuss two relevant projects of the 1920/30s, one realized in the United States of America and one in the Soviet Union, as well as the involved actors.

4.1 History and Definition of Large Dams

The potential of large dams to raise certain aspirations is already evident from the following statement of the World Commission on Dams (WCD):

"If water is life, rivers are its arteries. Dams regulate or divert the flow through these arteries, affecting the life-blood of humanity. The fact that they aim to do so in the

[95] Swain (2011) addresses the role of China in the regional power politics and for cooperation as this major player enables the construction of unilateral projects; Cascão (2009) argues that China provides new opportunities for financing as multilateral financial institutions would not support projects, which negatively affect downstream countries; Adams (2012) assesses the role of international financial institutions, inter alia, in the case of the GERD, which is not funded by the latter, focusing on the influence of stricter funding standards; Waterbury (2002) addresses Egypt's "veto power" in preventing water developments in upstream countries since the World Bank and regional banks require consent of affected downstream countries prior financing.

[96] Tawfik 2016: 75.

[97] Relevant is also Menga's other article (2017), which analyzes the impact of nationalism and nation-building processes on transboundary water relations, while this thesis focuses on the latter's impact on the (trans)national level, when promoting the GERD to Ethiopians within the country and abroad.

interests of humankind only makes the decision to build a large dam more sensitive, one that will trigger a range of apprehensions, hopes and fears, both rational and irrational"[98].

As every human community across time and space depends significantly on rivers for livelihood, habitat, commerce, transport and sustaining ecological functions, it is not surprising that the earliest types of river engineering dates back over eight thousand years, evident by ruins of irrigation canals in Mesopotamia[99]. Due to the advancement of technology and science, water storage and distribution constructions became larger and more complex and their unique ability to produce electricity on a large-scale for growing populations and industries explains their perceived importance for the 19th and first part of the 20th century[100]. Established in 1928[101], the International Commission on Large Dams (ICOLD) defines a large dam as a "dam with a height of 15 metres or greater from lowest foundation to crest or a dam between 5 metres and 15 metres impounding more than 3 million cubic metres"[102]. Based on this definition, the ICOLD's world register on dams acknowledges 59,071 dams worldwide, with China having the largest proportion with 23.841 dams, followed by the USA with 9.265. As of 2017, it registers 19 large dams in Ethiopia, eight in Ghana and seven in Egypt[103].

In general, there are two major categories of large dams: reservoir type storage projects and run-of-river dams. Large dams also significantly vary according to scale, design, operation as well as their potential for adverse impacts[104]. Counting to the world's most massive infrastructure projects, large dams can fulfill various specific purposes, mainly irrigation, flood control, water supply, hydropower, and serve industrial and urban needs[105]. However, a dam can be constructed for multiple purposes, which plays according to the ICOLD, an important role for countries in the Global South since a single investment can stimulate domestic as well as economic benefits[106]. Relevant for this thesis is the fact that large dams are built for generating electricity as either a primary reason or as an additional function[107]. According to Everard, the idea to use moving water as a means of turning a turbine, being connected by a shaft, in order to generate electricity

[98] World Commission on Dams 2000: 3.
[99] Ibid: 8.
[100] Biswas and Tortajada 2001: 9f.
[101] International Commission on Large Dams 2018.
[102] Ibid: 3.
[103] The registry includes only projects situated in the ICOLD's 97 member countries (International Commission on Large Dams 2018a).
[104] World Commission on Dams 2000: 11.
[105] Nüsser 2014: 1.
[106] International Commission on Large Dams 2018b.
[107] World Commission on Dams 2000: 4.

- or hydropower - was developed by the mid-nineteenth century[108]. During the first half of the twentieth century, the construction of large dams for the purpose of enforcing hydropower on a large scale, inter alia, took place mainly in countries of the Global North, including the United States, Australia, Canada, Western Europe, Japan and the former Soviet Union, being fueled by the successful installation of early schemes in the USA from the 1890s onwards[109]. Between the 1910s and 1940s, governments were the dominating actors in constructing large hydropower projects, often having the sole potential of "appeasing the demon of first cost"[110].

4.2 Establishing US Expertise

In the USA, federal involvement in dam construction was mainly shaped by two actors: the US Army Corps of Engineers (since the 1820s) and the Bureau of Reclamation, being situated in the Department of the Interior (since 1902). Historically, the dams of the former served mainly to support navigation and flood control, while the dams constructed by the Bureau of Reclamation served water storage and delivery requirements. Later on, both federal agencies incorporated hydropower as an important secondary function[111]. The Bureau of Reclamation was in charge of constructing the well-known Hoover dam.

4.2.1 The Hoover Dam

The 221 meters high Hoover dam[112] was constructed between 1931 and 1935 along the Colorado river in the Black Canyon[113] and is often perceived as having ushered in the era of large dam construction[114]. Having been finalized two years ahead of schedule and

[108] Everard 2009: 29.
[109] Biswas and Tortajada 2001: 10; Everard 2009: 29f.
[110] Reynolds 2006: 166.
[111] Billington et al. 2005: iii. The extensive account on federal dams in the USA, titled "The History of Large Federal Dams: Planning, Design and Construction" (2005), was written by a group of historians. The project was financed by the US Army Corps of Engineers and the Bureau of Reclamation, while it was managed by the National Park Service Administers (ibidem); See also: Sneddon and Fox 2011: 454.
[112] Initially, the dam was called Boulder dam. In 1947, it was renamed as Hoover dam after president Herbert Hoover by Congress. During his presidency, Hoover played an important role for the realization of the project since he included governors of the respective states in a commission, resulting in the signing of the Colorado River Compact in November 1922 as a basis for dividing the water of the Colorado river. The created "lake Mead" was called after one commissioner of the Bureau of Reclamation, Elwood Mead (Dunar and McBride 1993: vvii, xvii; Hiltzik 2010: xi; Everard 2009: 15).
[113] For further information see several key works on the Hoover dam: Dunar and McBride present in their book "Building Hoover Dam: An Oral History of the Great Depression" (1993) the perspective of the workers in order to provide an additional dimension on America's pioneering heritage and industrial resourcefulness; Steven's "Hoover dam: An American Adventure" (1988) aims at presenting a full story of the dam's construction based on the human dimension; Arrigo's "Imaging Hoover Dam: The Making of a Cultural Icon" (2014) constitutes an historical approach of analyzing the function of texts and images associated with the Hoover dam, which were created by various parties in order to create certain perceptions about the dam, its meaning, its utility and construction.
[114] The World Conservation Union and the World Bank 1997: 10; Everard 2009: 14; Nüsser 2014: 8.

below its budget despite economic, technical, political and organizational challenges[115], the dam constituted the world's largest hydropower-producing facility and concrete structure[116]. Even though subsequent dams exceeded the Hoover dam in terms of height, volume and power production, it is recognized as the first of the great multipurpose dams, which provided the arid American Southwest with water for irrigation, flood control and hydroelectricity[117]. As yet, it remains one of the largest hydropower stations[118].

Already during the 1920s, the Colorado river was under examination by engineers of the Bureau of Reclamation[119]. The ambitious attempt of harnessing the water of the Colorado river from the Grand Canyon to the Gulf of California demanded for an unpreceded scale of engineering know-how, logistics and organization and the geographical features of the Black Canyon would result in "a battle between human resourcefulness and the raw, elementary forces of nature"[120]. The project did not coincide with the Great Depression but was actually promoted by the Republican president Herbert Hoover as one of the federal efforts to promote economic recovery as well as to tame the infertile West[121], hoping the project would generate employment, rescue his failing political career and restore national pride[122]. Thus, when Congress authorized the construction of the dam in 1928, despite much skepticism from renowned engineers[123], one of the largest construction projects in the history of the USA was initiated, while "the rest of the nation was reeling from the stock market crash, a rising tide of bank failures, and skyrocketing unemployment"[124].

Whereas the project was under the supervision of the Bureau of Reclamation, the contract for construction, worth almost US$ 50 Million, was to be granted to a private contractor based on competitive bidding[125]. In March 1931, the bid was won by a consortium, called "Six Companies INC.", consisting of several prominent companies, such as "Utah Construction Company", "Morrison-Knudsen" and "Henry Kaiser", who decided to pool

[115] Kwak et al. 2014: 256.
[116] Everard 2009: 14.
[117] Dunar and McBride 1993: vvii.
[118] In 2009, it was ranked among the 34 largest hydropower generating stations (Everard 2009: 14).
[119] Dunar and McBride 1993: 1; Billington et al. 2005: 171.
[120] Stevens 1988: 4f.
[121] Kwak et al. 2014: 256.
[122] Smith 2011: 113.
[123] According to Stevens, some specialists judged the dimension of the project as too ambitious, others argued that the large created reservoir could cause a catastrophic earthquake. Besides, the construction site was quite inaccessible and rugged, resulting in challenges of transporting workers and machines. Additionally, the temperature of the desert caused hazards (Stevens 1988: 4, 48).
[124] Ibid: 48.
[125] Billington et al. 2005: 171.

their expertise[126]. Crowds of unemployed workers from various places migrated to the area around Las Vegas, which sped up the start of the Hoover dam construction, involving at its peak time 5,200 workers at once[127].

The second period of dam construction took place during the presidency of the Democrat Franklin D. Roosevelt, who aimed at appropriating the dam "as a tangible symbol of the New Deal"[128], a set of federal recovery programs of his administration[129]. The author Hiltzik interprets Roosevelt's personal visit to the Hoover dam for inaugurating this "great feat of mankind"[130] in front of ten thousand people on the 31st September 1935 as an effort to establish the dam as a symbol for human's mastery over nature and for the ability to find greatness from the creation of a social and economic community[131]. The following summary of key aspects of his speech should serve to understand this attempt, emphasizing the various aspirations:

"an unpeopled, forbidding desert [transformed into] the bottom of a gloomy canyon […which] is a *twentieth-century marvel*. We are here to celebrate the completion of *the greatest dam in the world* […], to see the creation of the *largest artificial lake* in the world […] we are here to see nearing completion of a power house which will contain the *largest generators and turbines* yet installed in this country […] All these dimensions are *superlative*. They represent and embody the accumulated engineering knowledge and experience of centuries; and when we behold them it is fitting that we pay tribute to the *genius of their designers*. […I]t must also be considered in its relationship to the *agricultural and industrial development and in its contribution to the health and comfort of the people* of America who live in the Southwest […] [It costs] a total of $108,000,000, all of which will be repaid with interest in fifty years under the contracts for sale of the power [...T]he way is opened for the provision of needed light and power to the consumer at reduced rates […] While we do all of this, we *give actual work* to the unemployed and at the same time *we add to the wealth and assets of the Nation*. These efforts meet with the *approval of the people of the Nation*. […] The people of the United States are *proud* of Boulder Dam[132] […], the national benefits which will be derived from the completion of this project will make themselves felt *in every one of the forty-eight States*. […] This is an *engineering victory* of the first order - *another great achievement of American resourcefulness, American skill and determination*."[133]

According to the historians Billington et al., Roosevelt's celebration of the dam's assumed manifold achievements and promises as well as the image of human's ability to

[126] Ibidem; Stevens 1988: 47.
[127] Dunar and McBride 1993: xviif; Ekbladh 2002: 62; Billington et al. 2005: 173f.
[128] Hiltzik 2010: ix.
[129] Ibidem.
[130] Roosevelt 1935.
[131] Ibidem.
[132] The dam was renamed as Hoover dam (see Footnote 112).
[133] Roosevelt 1935; The emphasis was added by the author of this thesis.

harness nature with technology and manpower, surpassed its initial political and economic aspirations[134]. Although it was not the first time that a politician tried to fuel the symbolic meaning of a public work's project to indicate America's superiority, the speech marks an important moment, whereby "a large multipurpose dam was imbued with national values of seemingly universal benefit"[135]. The raised aspirations and iconic nature of the dam are also mirrored by scholar's perceptions: Stevens characterizes the Hoover dam as a distinct and monumental icon even fifty years after its construction[136], Dunar and McBride call it a legacy of the 'American century'[137], and Duchemin emphasizes its symbolic meaning for the New West as a modern place[138]. Generally, the Hoover dam is perceived as an engineering marvel within the American cultural worldview[139]. Indeed, the Hoover dam and the subsequent large dams on the Colorado river, contributed to the transformation of Los Angeles into a huge metropolis as well to the economic and geographic makeovers of Arizona, southern California and southern Nevada due the supply of water and power.[140] However, this also caused a reduced flow of water in the contemporary period[141]. Movies were made about the Hoover dam and a million tourists come to see it every year[142]. The construction of the Hoover dam also changed the role of the US Burau of Reclamation (USBR), now perceived as an essential actor in transforming marginal regions into major agricultural and industrial hubs[143]. The next chapter will present another actor that significantly contributed to the establishment of American engineering expertise on a global scale: the Tennessee Valley Authority[144].

4.2.2 The Tennessee Valley Authority

The Tennessee Valley Authority (TVA) is a corporate state agency in the southeastern United States, which currently provides electricity for business customers as well as local power companies in seven southeastern states[145]. Founded in 1933, within the first hundred days of Roosevelt's presidency[146] as part of the New Deal, the entity was initiated

[134] Billington et al 2005: 179f.
[135] Ibid: 180.
[136] Stevens 1988: vii.
[137] Dunar and McBride 1993: vvii.
[138] Duchemin 2009: 60.
[139] Ross and Wolfe 2016: 8.
[140] Duchemin 2009: 60.
[141] Hiltzik 2010: vi.
[142] Ibid: xii.
[143] Rowley 2006: 18.
[144] Biswas and Tortajada 2001: 10.
[145] Tennessee Valley Authority 2018.
[146] Hiltzik 2010: xi.

to complement existing agencies[147] which have already been discussed above. The area of the Tennessee Valley caught governmental interest for establishing this multipurpose development program[148] since the economic condition there was even more severe compared to the rest of the country, having an income decrease of 40% of the national average[149].

Roosevelt envisioned a new type of agency, which he presented to Congress as a corporation equipped with the power of a government, while possessing the initiative and flexibility of a private enterprise[150]. For the era, this was an innovative model of how to plan and organize the usage of natural resources[151]. According to the TVA act of 1933, the authority was eventually passed as a public corporation with a three-member board. Its headquarters were not situated in Washington but in the valley itself, which also constituted the residence of the board of directors and the employers[152]. The Tennessee Valley Authority (TVA)'s initial objectives were to improve the navigability of the Tennessee river and cater for flood control, to enhance reforestation and ensure the adequate use of marginal lands, as well as to provide for the industrial and agricultural development of the Tennessee Valley and other purposes[153]. Thus, the TVA's early mandate was to regard the social and economic resources of the valley in a holistic manner, acknowledging the interplay of many related factors shaping the situation, which requires an integrated and balanced program[154]. The focus on a "unified approach to resource use"[155] was still key in addressing new and more complex challenges in the mid-1970s[156]. According to the political scientist Hargrove, the TVA's creation period between 1933 and 1945 was largely shaped by David Lilienthal, one of the three directors. He helped fashion the TVA's ideology of "grass root democracy", whereby the multipurpose public authority was working together with the people of the valley, the

[147] O'Neill 2002: 163.
[148] Ekbladh 2002: 336.
[149] The Tennessee Valley comprises an area of 40.000 square miles, covering parts of seven states. In 1933, it was traversed by the turbulent Tennessee River, which caused frequently destructive floods in the winter months. During the late summer and fall, there was not enough water for navigation. Apart from few dams producing electric power, the potential was nearly all wasted. Additionally, the area faced a destruction of soil due to unsustainable agricultural practices (McCarthy 1950: 117).
[150] Hargrove 1994: 20.
[151] Ibidem.
[152] Curtis 1952: 334.
[153] Tennessee Valley Authority 1933: 1.
[154] Curtis 1952: 334; McCarthy 1950: 117.
[155] Bradshaw 1984: 209.
[156] Ibidem.

governments and private utilities[157]. The board of directors was appointed by the president and was given an extraordinary degree of autonomy since it enjoyed the authority of acquiring land for dams and navigation channels[158]. However, the construction of dams and the selling of hydropower was declared to be by-products of the TVA's central objectives, thus falling within federal authority[159]. Hence, Roosevelt's vision of building a large number of dams[160] was soon starting to be realized by drawing upon existing plans of the US Army Corps of Engineers for the valley and on dam designs from the Bureau of Reclamation[161]. The 41 meters high hydropower generating Wilson dam was already constructed between 1917 and 1924 and acquired by the TVA in 1933[162]. The realized aim of the authority to dam all streams of the given river basin in order to fully control its water by installing a set of multipurpose dams in a systematic way took river basin development to new heights[163]. During the "Golden Years" (1933-1950)[164], education of farmers in the valley started, fertilizers were produced at the Muscle Shoals and reforestation was practiced by the newly-created Civilian Conservation Corps[165].

By the 1950s, the Tennessee Valley Authority (TVA) was - within the valley and as a national institution - well-established and its positive achievements well-known. These included the increase of electricity supply to regional farmers from 3% in 1933 to 80% in the 1950s and the growth of industrial employment based on the cheap electricity[166]. At the same time, the emphasis on government planning was soon perceived as a move towards state socialism by conservative politicians and private utilities[167]. However, the possible accomplishments of an adequate river basin development, embodied by the TVA as a model, attracted international attention[168].

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[157] Hargrove 1994: 4.
[158] Bradshaw 1984: 210; See also: Curtis 1952: 334.
[159] Hargrove 1994: 21.
[160] Hiltzik 2010: xi.
[161] Bradshaw 1984: 210.
[162] Tennessee Valley Authority 2018a.
[163] Molle et al. 2009: 333; Lagendijk 2015: 82.
[164] From a contemporary perspective, there is much criticism on the TVA model since the projects do not deliver the intended benefits but have rather negative social, economic and ecological consequences. Often, they do not consider the knowledge, experiences and values of local communities (Ekbladh 2002: 336). Besides, the ideology of "grass roots democracy" was in many parts of the valley not implemented but decisions were made by the TVA officials and local power brokers (Sneddon and Fox 2011: 454). Bradshaw argues that the TVA model cannot provide an approach for "integrated regional development" since the concentration on producing hydropower on a huge scale that started in the 1950s can be seen as an example of overdevelopment (Bradshaw 1984: 214, 219).
[165] Ibid: 210.
[166] Ibid: 212f., 219.
[167] Sneddon and Fox 2011: 453. See also: Ekbladh 2002: 339.
[168] Hoag 2006: 248; Sneddon and Fox 2011: 454; Ekbladh 2002: 336.

4.3 Establishing Soviet Expertise

Not only actors within the USA established "exportable" expertise in constructing large dams throughout the 1920s and 1930s. The historian Lagendijk recalls that the USA and the Soviet Union were racing for building the worldwide largest and boldest dam since the Dnieprostroi dam was built almost at the same time as the Hoover dam[169].

4.3.1 The Dnieper Hydroelectric Station

The Dnieper hydroelectric station, or Dnieprostroi dam, was built at the Dnieper river in the Ukrainian Soviet Republic[170] between 1927 and 1932[171], being thus completed when the construction of the Hoover dam just started. The project cost US$ 400 million[172]. Producing 526 MW, the power station was the third largest worldwide after the Hoover and Wilson dams[173], while constituting the largest in Europe at that time[174]. It eventually provided the intended employment, as a regular steel factory started to operate in 1933, the countryside received supplies of electricity and irrigation and the navigation of the river was improved by installing new locks[175].

According to Rassweiler, who conducted extensive research on the dam's construction history[176], the famous slogan "Communism is Soviet Power and the Electrification of the whole country"[177] guided the celebration of its completion. It originates from Vladimir Lenin's speech at the 8th Congress of Soviets in December 1920, in which he highlighted the importance of the second economic plan, the "Electrification plan" or GOELRO[178]. The plan served to introduce electrification as the new state technology and an instrument to rapidly reconstruct the economy, as well as to modernize the country in conjunction with planning[179]. Thus, it constituted the "technical and material basis for socialism"[180]. The relevant figures for this thesis, Vladimir Lenin, Joseph Stalin and Nikita Khrushchev, regarded technology as an adequate tool to convert the mostly agrarian, peasant society

[169] Lagenjik 2015: 82.
[170] Reynolds 2006: 166; Lappin 2000: 374.
[171] As the Germans invaded the Ukraine in 1941, the Soviet Union destroyed the dam in the course of their retreat. After being rebuilt and destroyed again, it was among the first enterprises to be rebuilt after the war, mostly by the manpower of German war prisoners. The work was finalized in 1950 (Rassweiler 1988: 189).
[172] Ibidem.
[173] According to Dorn, the Soviet dam was even more powerful than the Wilson dam (1979: 322).
[174] Lappin 2000: 374; Reynolds 2006: 166.
[175] Rassweiler 1988: 4, 10f.
[176] Rassweiler claims that her extensive historical account "The Generation of Power: The History of Dneprostroi" (1988), which is based on field work, was till the date of publication the only existing study in English, which focused on the actual construction site (Rassweiler 1988: 4f.).
[177] Rassweiler 1988: 3; The original quote is written in capital letters.
[178] Ibid: 12.
[179] Coopersmith 1992: 151.
[180] Lagendijk 2015: 82.

into a machine of workforce, motivated to construct communism[181]. Large scale infrastructure projects were hoped to use resources in an efficient way and to constitute an adequate venue for spreading "political and cultural education of a burgeoning work"[182] as well as to create a "new man" due to the process of subjecting nature by technological means[183]. Since the Soviet Union was river-rich, the usage of hydropower as a source of energy played an essential role[184].

However, the concrete plan of building the Dnieprostroi dam was only implemented after the economy's recovery from the civil war and the victory of Stalin and the Stalinist faction in the late 1920s[185]. It became the first large project of the first Five-year-Plan of the GOELRO and thus the pioneer of massive projects, which were at the center of the Stalinist forced industrialization and collectivization process of the early 1930s[186].

Interesting for this thesis is the fact that the project, which was outstanding and daring in terms of its design[187], depended on foreign expertise. In fact, the account of Edergeton, professor of science and technology, highlights that many other symbols of Stalinism[188], as well as certain industrial sectors like the automobile industry, highly relied on expertise in terms of design, planning and processing as well as on products and equipment from capitalist countries. This came primarily from the USA, and enabled the Soviet Union's "autarchic" development, which was somehow contrary to Stalin's dogma of "Socialism in one country"[189].

The dam project was designed by I.G. Aleksandrov and P.P. Laupman[190] and the American engineer H.L. Cooper, who had just directed the construction of the Wilson

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[181] In fact, Lenin portrayed technology as a universal remedy of Russia's economic backwardness. Stalin used his idea to actually build a strong state. Josephson states that Khrushchev "may have wished to use various large-scale projects to challenge entrenched programs, modernize the economy, and raise living standards" (Josephson 1995: 522). See also for a summary of relevant projects: Molle et al. 2009: 333f.
[182] Josephson 1995: 519.
[183] Gestwa 2003: 79.
[184] Lagendijik 2015: 82.
[185] Rassweiler 1988: 5
[186] For instance, the Magnitostroi (1930), Traktorstroi (1930), Kuznetskstroi (1930), and the Stalingrad Factory (1931) followed. By 1932 more than 3,1 Million workers were employed within the construction sector (Rassweiler 1988: 3, 4, 11.).
[187] Besides, Josephson points at the negative environmental impacts of large water infrastructures built in this period. He argues that they caused an increase of evaporation, salinity, pollution of water resources and destroyed fertile farmland as well as forest land by flooding large areas (Josephson 1995: 536).
[188] For instance, the famous steel works at Magnitogorsk were a copy of a US Steel Corporation plant, which was built in Indiana in 1906. At the peak of the Magnitogorsk's construction in 1931, approximately 250 Americans as well other foreigners were involved in directing the work (Edgerton 2007: 23).
[189] Ibid: 15, 22.
[190] Rassweiler 1988: 4; Lappin 2000: 374.

dam[191], served as a consultant[192]. As Aleksandrov's design included the introduction of mechanized construction work to enhance resourcefulness[193], previously unfamiliar machinery was imported from the USA and Germany[194]. According to the National Museum of American History, the massive hydroelectric generators were produced by "General Electric" in 1931, just before they were manufactured for the Hoover dam[195]. The Soviet engineers, technicians as well as the 60.000 workers were instructed by the foreign engineers of how to operate the new machines[196]. Besides, literacy schools as well as technical courses in construction and electrical and mechanical engineering were organized[197]. The historian Hughes called this engagement "an epic chapter in the history of technology transfer"[198]. During the opening ceremony of the dam, the deputy chief claimed:

"Here a structure has been created, never before been seen in history. Dneprostroi is the mighty foundation of socialist construction. Only the October Revolution made possible the construction of such a giant."[199]

Apart from the advantages of the workers to receive employment as well as education and training, the hardship during the construction as a consequence of the work itself as well as the forced labor and repressions of Stalinism cannot be underestimated[200]. According to Rassweiler, the whole construction process was omnipresent in the daily press coverage. Later on, it was addressed by novelists and documentaries, depicting the workers as heroes. Hence, the dam was well-known to the Soviet citizens of the time[201].

4.3.2 The Hydroproject

Based on the successful proceeding of the Dnieprostroi dam, the construction of 17 smaller hydroelectric stations, the drive to implement the GOELRO as well as to channel the research on water resource development across the Soviet Union's territory, the Hydroproject or Gidroproekt Institute was founded in October 1930[202]. As a subdivision of the People's Ministry of Internal Affairs - the secret and internal police under Stalin -,

[191] Due to his successful accomplishment, he was awarded the Order of the Red Star. Besides, he was concerned with improving the diplomatic relations between the two countries (Dorn 1979: 323).
[192] Rassweiler 1988: 9.
[193] Ibid: 4.
[194] Ibid: 8.
[195] National Museum of American History 2018.
[196] Rassweiler 1988: 3, 8.
[197] Ibid: 8.
[198] Hughes 2004: 264.
[199] Mikhailov 1935 cited in Rassweiler 1988: 3.
[200] Edergeton 2007: 23; See also Rassweiler 1988: 186f.
[201] Ibid: 4, 186ff.
[202] Lappin 2000: 374.

the institute became the single organization to develop, design and build hydroelectric plants[203]. Several scholars refer to the fact that the engineers, trained at the Dnieprostroi dam, were working for and even heading the new institute[204]. According to Gestwa, the engineers of Gidroproekt portrayed water energy as needed to be conquered based on the concept of the "new man", in order to correct the mistakes of nature. They imagined to create new fertile areas by converting rivers in Siberia, melting glaciers and flattening mountains, having utopian aims, such as, producing oranges in Siberia[205]. Decisions on financing extraordinary projects were made within highly exclusive circles of power[206]. Having constructed and commissioned dozens of hydroelectric projects in various parts of the Soviet Union in the pre-war period, 25 during the war in the Eastern part of the Soviet territory, and having repaired damaged projects after the war and constructed 14 hydroelectric stations between the 1950s and 1960s, the Soviet's engineering skills gained a leading position worldwide[207].

4.4 Interim Conclusion

The history of these early large dam projects and their consequences, namely the physical embodiment of expertise in institutes, agencies and models on the one hand, and the gained reputation across national boundaries on the other hand, shows that the actual as well as the perceived establishment of expertise in planning and realizing large dam projects depended on the ability to successfully implement unprecedented projects rather than having the theoretical capacity. Besides, the role of American engineering expertise for the establishment of Soviet expertise demonstrates a quintessential entanglement and a highly illustrative example of the transfer of knowledge and ideas across borders of states and political systems. The embeddedness of both projects and the linked institutions in core plans for economic recovery and societal restructuring, as well as the perceived multiple, and even universal benefits, demonstrate an essential blurring of ideological boundaries. This is because technology, and hydropower generating large dams in particular, constituted an apparently neutral force serving capitalism and communism alike. Having in mind that the Soviet dam was finished even before the American dam, the latter's role in "ushering the era of large dams" appears to be relativized in the literal sense, while its iconic meaning, explained by its architecture, location and Roosevelt's

[203] Lagendijik 2015: 82.
[204] Lappin 2000: 374; Lagendijik 2015: 82.
[205] Gestwa 2003: 79.
[206] Gestwa 2004: 63.
[207] Lappin 2000: 375f.

speech, is even more emphasized, which mirrors the general perception of US dominance in the 20th century. The aspirations surrounding both projects, mainly the desire for progress by integrating peripheral regions into the economy with expected positive consequences on a national level in terms of employment, electrification and industrialization, and thus the overall transformation of the country, and the ambition of lifting it from one level to the next, indicates the project's embeddedness in the emerging zeitgeist of the development era which shaped the next decades. Thus, the discussion of these two single projects foreshadows the general aspirations linked to large dams till the 1970s, particularly in the 1950s/60s, since they acted as catalysts.

The next chapter will discuss the emerging zeitgeist, presented as a nexus, into detail and will show how the new geo-political context fuels the various aspirations of large dams as well as the actual boom in constructing them. It will turn the perspective from ambitions of political leaders of differing ideological backgrounds in the Global North to the one's of political leaders of newly independent countries in the Global South, particularly Africa.

5. Theoretical Considerations for the 1950-70s

5.1 The Decolonization-Development-Modernization-Cold War-Nexus

To emphasize the overlapping and interrelation of the struggles and paradigm aspirations shaping the 1950/60s, the term *decolonization-development-modernization-Cold War-nexus* will be applied. Only between 1957 and 1962, twenty-five African states became politically independent[208]. According to the historian Westad, many new leaders faced the challenge to build on a colonial construct since, inter alia, institutions, bureaucracies, practices and borders were highly shaped by the former colonial power. Regardless of their political background, many leaders set the establishment of reconstructed and powerful states as a main aim, criticizing the colonial power for having failed to bring their country on the desired path of modernity[209]. Thus, the promises of modernity and its path, modernization, became popular strategies in emerging African states, enhanced by, inter alia, nationalist politicians[210]. Social scientists, acting as political advisors, generally proclaimed that several transitions needed to be achieved to reach modernity, such as moving from primitive economies based on subsistence to technology-intensive and

[208] Westad 2007: 89f.
[209] Ibid: 90.
[210] Miescher and Tsikata 2010: 16.

industrialized economies[211]. In order to break out of "underdevelopment" the mobilization of young people, willing to work hard, and the availability of natural resources, were seen as a basis to promote social justice and equality as well as better living conditions for all. This was also enhanced by the need of leaders to implement their electoral promises to build a nation[212]. There were two development models at offer: the socialist and the capitalist one. Both had in common that education, science and technological progress promised the way to high modernity[213] as illustrated in the previous chapter.

Out of 53 African states, 35 regarded themselves as 'socialist' at some point[214]. The lopsided integration into the capitalist world market as a colonial legacy, the lack of a working class and industry, constituted a challenge for the different socialist models and their radical transformations[215]. Many varieties of socialism existed, such as Nkrumah's "African Socialism" and Nasser's "Arab Socialism", implying different perceptions of development. These were often regulated by political elites in a top-down-manner, rejected state socialism and the Marxist-Lenin emphasis on class struggle, and instead advocated for national unity and being open to pragmatic cooperation with the national and international 'bourgeois,'[216] as well as for technical aid and loans due to the lack of hard currency and modern technology[217]. Thus, the Cold War, characterized by the race for symbolic pre-eminence between the Soviet Union and the United States[218], provided opportunities since "if one's enemies were supported by *one* superpower, there was always the chance of getting aid from the other"[219]. The interrelation of the elements *Cold War*, *Decolonization* and *Development* manifested itself at the first large-scale formal conference of newly independent states, the Asian-African Conference in the Indonesian city Bandung in April 1955 (the Bandung Conference). Representatives of 29 African and Asian states advocated in their Final Communiqué for a collective political project for self-determination and racial equality and thus against colonialism and imperialism, while

[211] Ibid: 17; Tipps 1973: 204.
[212] Westad 2007: 90f.
[213] Ibid: 92.
[214] Pitcher and Askew 2006: 1.
[215] Burton 2017: 5, 9.
[216] Ibid: 8.
[217] Ibid: 12. See also: Latham 2000: 2.
[218] Molle et al. 2009: 333.
[219] Westad 2007: 89.

already enhancing the idea of non-alignment for strategic means in the Cold War context[220].

In this web, a significant international actor and its position needs to be mentioned: the World Bank just shifted its focus from post-war-reconstruction in European countries towards the "needs" of countries in the Global South by providing temporary loans for creditworthy projects to governments, which could not lend from private banks due to perceived risks, such as non-repayment[221]. By 1963 the bank was called "Black's bank" due to the dominating leadership of its - since 1949 acting - American president Eugene Black[222], characterized by the idea that a lack of development resulted from the lack of modernization[223]. Having these superimposing and dominating aspirations in mind, the next chapter will discuss their consequences.

5.2 Large Dams - Symbols for Development, Modernization and Nation-building

"From the 1930s to the 1970s, the construction of large dams became - in the eyes of many - synonymous with development and economic progress"[224] states the World Commission on Dams (WCD). While by 1949 approximately 5000 large dams existed on the global scale - having three-quarters situated in the Global North -, the construction of large dams peaked in the 1970s with on average two or three dams commissioned every day[225]. The environmental scientist Everard calls this rush for dams a manifestation of the "big engineering" approach to development that builds upon the idea that controlling water will lead to the achievement of targeted benefits and of development agendas[226]. Subsequent benefits, such as the expansion of infrastructure by building roads and schools, the economic growth of a region by facilitating multiple cropping and the power supply to rural areas were referred to when promoting dams as "the most economically and financially competitive option"[227].

The increase and apparently universal acceptance of large dams already indicates their perception as a guarantor for the transformation to a modern state in newly independent countries in the Global South in the 1950/60s as these infrastructure investments were

[220] Weber and Winanti 2016: 391; Utami 2016: 140.
[221] Clemens and Kremer 2015: 1; The World Bank Group 2018.
[222] The World Bank has been criticized for acting in favor of the US government, being its largest shareholder (Samoff and Carrol 2004: 3).
[223] Lavelle 2013: 10ff.; Staples 2002: 400.
[224] World Commission on Dams 2000: xxix.
[225] Ibidem: 8.
[226] Everard 2009: 13.
[227] International Institute for Environment and Development 2001: 4.

hoped to advance electrification and the process of rapid industrialization[228]. This led to a spread of dam constructions in the course of decolonization[229]. Especially the Tennessee Valley Authority (TVA) model encouraged leaders of emerging countries in Asia and Africa to construct similar monuments[230]. In many cases, the dam projects needed to be managed by experts that offered political leaders the "technopolitical promise to solve the legacy of postcolonial socio-economic problems"[231]. The underlying belief of the magical transformation of a country with barren wastelands into an elevated nation with an integrated domestic and political economy was decisive in framing them as meeting the triple challenge of state-building, nation-building and enhancing economic development[232]. The belief in dams as an instrument for development and thus for the reduction of poverty was shared by the World Bank[233], which started to provide the financial as well as ideological support for constructing hundreds of large dams in Latin America, Asia and Africa[234].

This positivistic approach towards large dams and the general features of the negotiation between the involved actors, such as political leaders, contractors and financial institutions, needs to be further elaborated. Bradlow, a professor of international development law, frames the common view of involved actors of the 1960/70s as the "traditional" view of decision-making for development, indicating its omnipresence not only in the dam building sector[235]. He argues that development was seen as an economic process that is facilitated by specific projects that should be designed and constructed as efficiently meaning as quickly and cheaply as possible, to achieve the highest possible rate of economic growth[236]. Thus, the first step was to evaluate a project's technical feasibility, which includes assessing if the project's financial and economic costs will be exceeded by its benefits and if the desired return can be expected. A positive outcome was used to serve the financers and contractors as a justification to proceed with the project[237]. According to Bradlow, the strict focus on technical factors is consistent with the conventional view of sovereignty since social, political and environmental factors in

[228] Miescher and Tsikata 2010: 17; Decker 2011: 1002.
[229] Nüsser 2014: 8.
[230] Decker 2011: 999.
[231] Lemons 2017: 1.
[232] Verhoeven 2012: 1f.
[233] Duflo and Pande 2007: 601.
[234] Verhoeven 2012: 2.
[235] Bradlow 2001: 1533f.
[236] Ibid: 1536.
[237] Ibid: 1537.

dam construction were neglected: they were treated as fixed parameters since they belonged to the prerogative of the respective government[238]. For instance, a host government expected the investors to respect and comply with its national environmental law and policy, mirroring the legal rule that a foreign sponsor has to act according to the host state's law[239].

This rather intellectual-legal framing, is supported by the findings of the World Commission on Dam (WCD)'s influential report, published in 2000, that conducted an extensive evaluation of large dam projects[240]. Indeed, the interplay of the vested interests of all involved actors resulted in the fact that dams were not even built "based on an objective assessment and evaluation of the technical, financial and economic criteria applicable at the time"[241], highlighting the role of political interests for realizing a project[242]. This supports this master thesis' interest in analyzing the politicized nature of the Aswan High Dam and the Akosombo Dam. Nevertheless, an initial external interest in a dam project needs to be attracted at first, which is again linked to the availability of technological expertise in constructing a dam. In the Cold War context, the established and recognized expertise within the United States as well as the Soviet Union is important.

According to the historian Ekbladh, the TVA model was not just an object to be mimicked, but it became intertwined with modernization programs offered by the United States to many parts of the Global South well into the 1960s[243]. Scott, a political scientist, even called this US "high-modernist" experiment "the granddaddy of all regional development projects"[244]. The US Bureau of Reclamation received international requests from water agencies in the Middle East, China and India to assist in building similar projects just when the Hoover dam was finished and hence became the major actor in diffusing the concrete vision of ideal multipurpose river basin development[245]. Likewise, the Soviet Hydroproject started to share its expertise after receiving offers to design and construct projects abroad[246]. One of the first examples was the Aswan High Dam[247]:

[238] Ibid:1539, 1551.
[239] Ibid: 1539f.
[240] World Commission on Dams 2000: ix.
[241] Ibid: 191.
[242] Ibid: 191f.
[243] Ekbladh 2002: 336.
[244] Scott 1998: 6.
[245] Sneddon and Fox 2011: 454; Everard 2009: 16.
[246] Lappin 2000: 375f; Lagendijk 2015: 80.
[247] Lappin 2000: 376.

6. The Aswan High Dam Case

The case of the Aswan High Dam will be discussed and analyzed according to the various (coexisting) project levels, while paying attention to entanglements and parallels with the projects of the inter-war period. The analysis will start by pointing out the project's origin and its role for Egypt's political leaders, which explain the aspirations surrounding it.

6.1 Origin and Role of the Aswan High Dam

First of all, Egypt's geographical features need to be highlighted to point out the dam's relevance: As Egypt consists mainly of desert regions with less rainfall and groundwater, the Nile river marks the only main source of water[248]. Thus, almost the whole population lives along the Nile and the collecting of water in preparation for droughts and the controlling of annual floods have been an ambition for centuries[249]. This striking economic dependency on the Nile led to comprehensive hydrological studies along the Nile basin under the British administration that took power in 1882[250]. For instance, the "Nile Projects Commission" of 1920 was set up to review suggested dam projects in Egypt and Sudan, addressing the question of water allocation[251]. During the 1940s, new water projects were on request in order to improve the control of water supply and to increase irrigated agriculture as previous attempts, such as the construction of the Aswan low dam and its heightening, were not sufficient[252]. Experts who were working, inter alia, for the Egyptian Ministry of Public Works suggested a Nile basin-wide century storage scheme in 1946 with dams likewise in Sudan, Ethiopia and Uganda, serving the overall interests of Great Britain[253]. Since the flow of the Nile varies each year as well as throughout the year, having more water than necessary from August till January, such schemes, providing a full over-year storage, appeared attractive[254]. Already for decades experts had been working on various plans that considered the Nile as one unit; however, this thinking was replaced by the idea of building a single giant project within the Egyptian territory based on a study, published in 1947 by the Egyptian agronomist Adriano Daninos, an early advocate of industrialization via hydropower[255]. According to the historian Shokre, Daninos' aspirations were raised during his travel to various river

[248] Abu-Zeid and El-Shibini 1997: 209.
[249] Kitabi 2012: 14.
[250] El-Sayed et al. 2006: 2; Baddour 1960: 203f.
[251] Ibidem.
[252] Abu-Zeid and El-Shibini 1997: 209; Hassan 2007: 75.
[253] Woldetsadik 2015: 372f., 385.
[254] Batstone 1959: 524.
[255] Shokr 2009: 12, 15, 18.

management sites, including the Tennessee Valley: He called Roosevelt "the great apostle of social progress"[256] as he was stunned by the - for him - innovative approach of multipurpose dams that targeted several problems with a single development project[257]. His arguments for the Aswan High Dam and his original proposal were inspired by the Tennessee Valley Authority (TVA) model: he sought to combine the initial purpose of controlling water supply via a massive reservoir with the generation of hydroelectricity for chemical and steel factories and the navigation of the Nile in order to "revolutionize irrigation, agriculture, and industry, and take the country down a path of economic development to an apogee never before attained"[258]. Although the plans of the dam changed in the course of events, the model that combines various attractive aspirations was used by the new Egyptian political leaders to justify the project later on[259]. This highlights the role of an individual actor as a mediator for the transfer of ideas and thus the relevance of focusing on aspirations as a driver for projects, while paying attention not only to the nexus they were embedded in, but also to entanglements with recognized projects abroad. This emphasizes the relevance of applying a spatio-temporal approach.

After a coup d'état in July 1952, the revolutionary government of the Free Officers, led officially by Muhammad Nagib but effectively by Gamal Abdel Nasser came into power[260]. Only a few months later, they encouraged the idea of building the Aswan High Dam as one feature to realize their promise of social and economic reforms[261]. It would serve as a symbol for Egypt's asserted independence, demonstrating the capabilities of an emerging state in terms of national development and thus dismantle the legacy of underdevelopment caused by British colonialism and the upper class of cotton growers and large land owners[262]. As the project was expected to turn a desert into arable lands, increasing the land under cultivation, and thus promised to raise the living standards of a rapidly expanding society while creating local industries and hence employment[263], it

[256] Daninos 1947 cited in Shokr 2009: 19.
[257] He was also inspired by similar projects in India and China (Shokr 2009: 19).
[258] Ibid: 18.
[259] Ibid: 21.
[260] The Revolutionary Command Council (RCC) was established after the coup and ended King Faruq's monarchy. The RCC consisted mostly of junior military officers, officially headed by General Muhammad Nagib. However, Nasser was secretly orchestrating the RCC's activities. The RCC, which operated till 1954, can be characterized as a transitional authoritarian regime, which was legitimized by the argument that the Egyptian situation did not allow an immediate establishment of democratic institutions as this would hinder the revolution (Lesch 2004: 2006f.). Nasser assumed formally power in 1954 and became officially president of the Republic (declared in1953) two years later (Borzutzky and Berger 2010: 84, 90).
[261] Holz 1968: 230; Hassan 2007: 75.
[262] Reynolds 2017: 214; Shokr 2009: 13.
[263] Reynolds 2017: 214.

became for Nasser "an urgent necessity for [Egyptian] life", hoping it would fulfill his promise of "a society built on justice, freedom, and equality"[264]. The successful realization of such a dam - a symbol of modernity - would be a physical demonstration of Egypt's determination to secure societal benefits and was to win the hearts and minds of Egyptians[265]. According to Holz, a dam constituted the most promising tool to fire the imaginations of the poor population with a limited resource base as it would harness the majestic Nile not to lose the precious water to the sea unused[266].

6.2 Domestic and Foreign Policy

The following subchapters will demonstrate that Egypt's early policies were strongly driven by Nasser's vision. First, relevant aspects of the domestic agenda will be pointed out, which set the goals that sought to be achieved by the non-aligned foreign policy. Those documents will be referred to that help to re-construct the intensions in the early 1950s when the idea of building the dam took shape.

6.2.1 The Domestic Policy Dimension

According to the political scientist Ben-Dor, Nasser was a pragmatic leader who acted according to his personal ideas, following no consistent and single ideology; however, he defined and dominated the politics of "an entire generation"[267]. Thus, it is not surprising that so-called "Nasserism" has been interpreted in various ways[268]. This thesis refers to the declared objectives of the political leaders themselves as of 1952[269]: the six aims of the Free Officers' revolution included battling imperialism, breaking with the control of foreign capital, overcoming feudalism, establishing social justice and a democratic system, and strengthening the military[270]. The development strategy between 1952-1970 can be understood as the combination of specific policies, such as the Land Reform of 1952, and the development objectives, expressed in general terms in Nasser's book "The

[264] See for both quotes: Nasser 1959 cited in Staples 2002: 410.
[265] Abu-Zeid and El-Shibini 1997: 218.
[266] Holz 1968: 230.
[267] Ben-Dor 2004: x; See also Ben-Dor 2004: ix.
[268] One set of interpretations understands "Nasserism" as an ideological movement with a certain set of ideas, including elements, such as anti-imperialism, pan-Arabism (or nationalism), and Arab socialism. Others interpret it as a certain authoritarian style of leading a state, while a third category of scholars perceive Nasser as a modernization leader and thus "Nasserism" as a modernizing movement. A fourth set interprets "Nasserism" as a protest against Western colonialism and imperialism, while again others see it as a specific populist movement (Podeh and Winckler 2004: 1-4).
[269] The Egyptian intellectual Awad Louis actually describes "Nasserism" as based on "seven pillars", which include the six principles as well as the formation of the National Union (Podeh and Winckler 2004: 6).
[270] Gordon 1992: 6.

Philosophy of Revolution" (1954), while actual policy-making was often a reaction to internal and external incidents[271].

In his book, Nasser advocates for the Revolutionary Command Council (RCC) - the temporary body supervising the state - to provide leadership for the political revolution due to their intellectual and military expertise. Essential for its success is the creation of unity and the homogenization among people, resulting in an egalitarian society without classes. He also argued that colonialism hindered the country's progress; thus, the Western path of modernism needed to be followed to rapidly catch up in order to create employment and housing, and to produce food[272]. The felt need of the revolutionary political leaders to deliver tangible results as soon as possible explains the urgency of the Aswan High Dam, as well as its role as a centerpiece in the state-building process which aimed at an aspirational social and economic transformation via technocratic state planning[273]. In order to create a sufficient and skilled technocratic workforce, Nasser implemented higher education reforms by establishing new technical facilities - based on West German models and technical aid - resulting in the training of 25.000 engineers by 1969. This constituted an increase of 400% compared to 1952[274]. Nasser had a close relationship with the Engineering Corps since he saw them as tools for driving the industrialization of his country[275].

6.2.2 The Foreign Policy Dimension

According to Sorby, professor of Arab studies, Nasser's foreign policy was shaped by the exchange of ideas with like-minded political leaders as the result of his first physical leaving of the Middle Eastern territory in April 1955. He participated in the Bandung Conference in Indonesia, providing him with the chance to talk with India's first prime minister, Jawaharlal Nehru, with the first premier of the People's Republic of China, Chou En-Lai, with the first prime minister of Burma, U Nu, and with Indonesia's first president, Achmad Sukarno. This resulted in the insight that positive neutrality and non-alignment would be the only wise foreign policy for Egypt, which meant to have only temporary relationships with either superpower according to the best interests of the country[276]. In the course of the active implementation of non-alignment, Nasser became

[271] El-Ghonemy 2004: 253.
[272] Lemons 2017: 3f.
[273] Shokr 2009: 9; Lemons 2017: 5; El-Ghonemy 2004: 255.
[274] El-Sayed et al. 2006: 4f.
[275] Fahmy 2002: 127f.
[276] Sorby 2002: 130.

a dominant leader in the Middle East[277], especially after the soon to be discussed "Czech arm deal" in 1955, which was also an attempt to become independent from the historic powers France and Great Britain[278]. The foreign policy dimension of Nasser's particular form of Pan-Arabism also included the support of Palestinian independence from neighboring Israel, the reconstruction of Arab dignity and giving voice to the Arab world in global affairs[279]. In terms of regional foreign policy making, the Nile has always constituted a centerpiece as Egypt not only largely depends on it but claims historic rights. The country had been using the waters for 5.500 years, and argued that upstream riparian countries could access additional water sources[280].

6.3 The Financial Negotiations of the Aswan High Dam

By October 1952, the Council decided to go ahead with the gigantic dam project by initiating intensive studies on the project[281]. Despite reservations within the Ministry of Public Works, Nasser hired a West German consortium, the "Hochtief and Dortmund Union", to conduct, together with Egyptian technicians, preliminary plans regarding the dam's size, location, stability, and vulnerability, which would be later evaluated by international consultants[282]. From the beginning, unresolved questions about the project's side effects led to controversies but the Egyptian leadership and respective decision-makers justified the dam as part of a multipurpose project due to its relevance "for the welfare of the Egyptian people"[283]. This indicates that Nasser acted according to his personal interests and the vision of creating a political prestige project, while relying on foreign expertise from the start.

After initial contacts with the World Bank's president in January 1953, Eugene Black signaled the possibility of funding the project once the studies were completed, offering to finance a more comprehensive study[284]. Black regarded Nasser as a strong leader, the Suez channel as a sufficient source of foreign revenues and the basis for economic development programs, resulting in "initial enthusiasm for the project"[285]. This shows that Egypt's geographical position at the Suez channel, which allowed quick European

[277] Takeyh 2000: 1ff.
[278] Shaughnessy Skaggs 2015: 2.
[279] Mansfield 1973: 675f.
[280] Swain 2011: 691.
[281] Holz 1968: 230.
[282] Rycroft and Szyliowicz 1980: 42ff.
[283] Abu-Zeid and El-Shibini 1997: 210.
[284] Rycroft and Szyliowicz 1980: 44.
[285] Staples 2002: 410.

access to South-East Asia and East-Africa, and the revenues from the channel were relevant and known tangible power resources that Nasser did not even have to play out actively. However, Nasser received the World Bank's loan offer via the US embassy, which included the requirement of an agreement over the allocation of Nile waters with Sudan[286], which was still under British administration[287]. This caused Nasser to suspect that Black was actually taking sides with the "imperialist nations"[288]. In order to convince Nasser of the neutral position of the institution, Black sent two representatives to him in January 1954 to explain that the pre-investment study of the Nile was not connected to American-British interests and that the agreement was part of the World Bank's technical, economic, and financial feasibility study[289]. In order to please Nasser, the full-scale study was replaced by a quick and less comprehensive one, which he eventually accepted in November[290]. This is indicative of the bargaining power gained by the interrelation of his intangible power resources, the geo-political environment and Black's interests.

In the meantime, Nasser already started to seek backers for the necessary foreign loan to construct the dam, turning to the US, whose government expressed initial optimism towards the new leadership[291]. As oil was the most demanded resource in the 1950s, US president Dwight D. Eisenhower and his administration had a prime interest in accessing oil in the Middle East as well as to settle the Israeli-Arab conflict in a peaceful way and to prevent the penetration of the Soviets in the region when coming into office in 1953[292]. However, Borzutzky and Berger state that Egypt did not receive any substantial US aid as an expression of trusting Egypt's new leadership, although vague promises had been made[293].

Thus, the Egyptian leadership saw the possibility to establish a limited relationship with the Soviets to serve the material needs of their society while not alienating the US. First, Nasser asked publicly for US aid and then expressed his concern in the US media that the West seems to perceive the Arabs as suspect due to the legacy of European imperialism, while conceding: "Too close of an alliance would give the Communists the chance to take

[286] The respective consequences and negotiations will be discussed in the next chapter as the created reservoir of the dam would expand into Sudanese territory, having transnational impacts.
[287] Staples 2002: 410.
[288] Ibidem.
[289] Ibid: 411; Rycroft and Szyliowicz 1980: 45.
[290] Ibidem.
[291] Borzutzky and Berger 2010: 89; Staples 2002: 410.
[292] Lesch 2004: 209; Borzutzky and Berger 2010: 89.
[293] Ibid: 90.

an ultranationalist line and to overthrow existing governments"[294]. Thus, he recommended the US to accept emerging states to receive some Soviet aid for the purpose of becoming economically independent[295]. This demonstrates that Nasser wanted to use the lack of material resources positively in order to increase his bargaining power, counting on the benefits of the geo-political environment and the not yet determined position of newly emerging countries. Additionally, through his personal and public speeches as intangibles he reminded not only the US government but also the American citizens on the rightful exercise of self-determination, sovereignty and economic development.

With the *Arms Purchase Agreement* with Czechoslovakia in September 1955[296], Nasser put his words into action. Interestingly, Sorby's account highlights that this idea did not originate from Nasser but from a follower of Bandung, namely Chou En-Lai, after Nasser expressed his concern of how to strengthen his frontiers to Israel. Nasser implemented the proposal after being threatened by Israel[297] and thus enriched his tangible power resources. The supply of military assistance by the Soviet Union was only possible under Khrushchev - Stalin considered Nasser as a member of the imperialist camp[298]. Thus, Nasser successfully speculated that Khrushchev must be equally annoyed by the *Baghdad Pact* of February 1955, a military alliance of several non-Arab Middle Eastern countries to prevent Soviet penetration that originated from several bi-lateral negotiations with the Eisenhower administration[299]. Accepting the challenge of the *Baghdad Pact*, Khrushchev decided to offer non-aligned leaders, like Nasser, an alternative to the West and a "more radical model for rapid development"[300].

This strategy resulted in the actual increase of Nasser's bargaining power, evident by the fact that Eisenhower and his administration started to court Nasser[301], perceiving the support of the capital-intensive Aswan High Dam as a promising opportunity to gain influence and establish a long-term economic relationship in order to prove true understanding of the challenges of newly emerging states[302]. Eisenhower and his

[294] Nasser 1954 cited in Bortzutzky and Berger 2010: 90.
[295] Bortzutzky and Berger 2010: 90.
[296] Cohen 2013:106.
[297] Sorby 2002: 130.
[298] Cohen 2013: 80, 106.
[299] Lesch 2004: 209.
[300] Cohen 2013: 106.
[301] Ibidem.
[302] Borzutzky and Berger 2010: 90, 93f.

administration demanded a clear pro-Western statement. However, Nasser could not fulfill this since it would threaten his position within Egypt. Nasser had political rivals, such as the Muslim Brotherhood and Egyptian communists[303]. Nevertheless, when reports mentioned Soviet interest in funding the dam in early December[304], the World Bank approved a joint loan package with British and US funding programs for the first part of the project by the end of 1955[305]. While the US government would provide US$ 56 million and the UK US$ 14 million, the World Bank was willing to lend US$ 200 million, having a 5,5% interest rate, and suggesting a joint loan of US$ 130 million for the second project stage after completion of the first, while Egypt sought to contribute the remaining amount of the overall US$ 1.3 billion[306].

The loan package's conditions would require Egypt to assign its domestic resources in a way that the completion of the project is assured, to avoid reckless obligations (such as receiving more arms from the Soviets), to enforce an agreement with Sudan as well as to approve the contract for the first construction phase based on competitive bidding[307]. However, Egypt's foreign policy required "assistance of any power must be unconditional"[308]. Nasser refuted the proposal as the conditions appeared as an attempt to re-establish colonial control over Egypt[309], while it would also slow down the implementation process: Nasser wanted to speed up the process by awarding all contracts to a single European consortium, which already developed the initial plans for the dam[310]. Now, Black came to Egypt personally and eventually convinced Nasser that the condition of competitive bidding would be in the best interest of Egypt as well. However, Nasser did not sign a final agreement, demanding a guarantee from the US and the UK to fund the second project stage as well. Without this, Nasser's domestic and foreign-policy making would be drastically limited[311]. While Black continued to court Nasser, criticism of funding the dam arose in the US Congress for manifold reasons: financial support should not be given to countries with no clear pro-Western agenda, increasing relations with cotton-producing Egypt might compete with the American cotton industry, Egypt

[303] Ibid: 91.
[304] Rycroft and Szyliowicz 1980: 53.
[305] Biswas 2002: 25; Staples 2002: 400.
[306] Rycroft and Szyliowicz 1980: 54.
[307] Ibidem.
[308] Baddour 1960: 218.
[309] Rycroft and Szyliowicz 1980: 54.
[310] Staples 2002: 412.
[311] Ibid: 412ff.; Rycroft and Szyliowicz 1980: 54.

recognized the Communist Republic of China, and American elections were approaching[312].

Additionally, the CIA discovered that the Soviet foreign minister visited Nasser in July 1956, offering a free loan, interpreted by the US Congress as a sign of Nasser's actual motives[313]. As a result of the various events, the US withdrew from their commitment on the 19th of July 1956 by stating publicly that this project might be too ambitious for Egypt and thus humiliating Nasser. The assumption was that the Soviets would not actually have the funds to implement their offer[314]. The official statement reasoned the withdraw as well by referring to the continuing lack of enforcing an agreement that addresses the water division between Egypt and Sudan[315]. The UK withdrew eventually a few days later, causing the repeal of the World Bank[316]. Nasser was enraged since the Soviet offer was not expected and welcomed at that time[317]. Thus, Nasser's non-aligned strategy, initially successful in attracting Western interest, was nullified by, inter alia, the self-engagement of the Soviet actor that was likewise attracted and undermined Nasser's bargaining power.

Being unconvinced by the Soviet's commitment, one week later, Nasser declared that Egypt would build the dam by itself, generating the necessary funds from the revenues of the Suez channel that he then nationalized[318]. Until then, it had been operated by the Anglo-French "Suez Channel Company"[319]. Three months later, the *Suez Channel Crises* broke out, manifesting itself in a military confrontation between Egypt and Britain, France and Israel, and ended by the pressure of the US and the United Nations in March 1957[320]. However, the military invasion did not change Nasser's interest in building the dam[321] as he accepted Soviet financial and technical assistance in order to realize it: The Soviet-Egypt agreement was signed on the 28th of December 1958[322]. The first 12-year loan of around US$ 100 million was granted at a 2,5% annual interest rate for the foreign exchange requirements of the first project stage, including all costs related to the technical support of the Soviet Union[323]. This decision is well summarized by one of Nasser's

[312] Cohen 2013: 107; Bortzutzky and Berger 2010: 97.
[313] Ibidem.
[314] Cohen 2013: 107; Bortzutzky and Berger 2010: 84; Batstone 1959: 525.
[315] Batstone 1959: 523.
[316] Ibidem.
[317] Bortzutzky and Berger 2010: 97.
[318] Biswas 2002: 25.
[319] Lahav 2015: 1302.
[320] Cohen 2013: 107ff.; For more information see: Lahav 2015.
[321] Hassan 2007: 76.
[322] Batstone 1959: 528.
[323] Abu-Shumays 1962: 13.

confidents, Mohammed Heikal: "After the West had fumbled and failed it was the Soviets who had stepped into the breach, and with their money and their skills had built the 'new pyramid'…"[324]. This shows that Nasser tried to use his tangible power resources in order to develop his country in an independent way, which did not work out due to the lack of sufficient financial resources and technical expertise. However, the non-immediate agreement to cooperate with the Soviets shows that neither of the superpowers could control Nasser and that he used his non-aligned policy to show off his sovereignty and to ultimately guarantee funds for a dam he was determined to build, and thus opened a Third Space of Maneuver.

By mid-1960, a second 12-year Soviet loan of around US$ 225 million with the same interest rate was agreed on to finalize the project, just a few months after the construction started[325]. The loans of the Soviet government were to be complemented by Egyptian governmental money and by private investors, while the government's expenditure on the project was hoped to be paid back within 15 years[326]. According to the social scientist Ismael, Nasser went personally to the Soviet Union in September 1965 to successfully negotiate for more financial support for the Aswan High Dam, while additionally securing financial support for the construction of a sawmill and for substructure operations. This was in exchange for supporting the Soviet's candidature for the Algiers conference, the second Afro-Asian conference after Bandung, planned for November 1965, which was eventually cancelled[327]. This emphasizes again Nasser's pragmatism in foreign policy making that aims at serving domestic interests rather than complying with ideological visions.

6.4 The Legal Negotiations of the Aswan High Dam

As already indicated in the previous chapter, the international level of financial negotiations is intertwined with the regional level of legal negotiations due to the World Bank's pre-study and the respective condition of the Anglo-American-World Bank loan package. Thus, the international actors interfere with the relations of the regional actors in the Nile basin. Statements, briefly summing up the process, such as, "Since Sudanese independence in 1956, Egypt and the Sudan had engaged in negotiations over the construction of the Aswan High Dam […] The talks were begun because the World Bank

[324] Biswas 2002: 25.
[325] Holz 1968: 230; Abu-Shumays 1962: 13.
[326] Abu-Shumays 1962:11, 16.
[327] Ismael 1968: 187.

insisted on an accord before it would advance financing"[328], confuse the chronology of events and risk the implication that the international financial institution gave the only incentive for bilateral negotiations. This is relativized when reconstructing the events from a regional perspective, leading eventually to the *1959 Nile Waters Agreement*:

Based on two colonial treaties (1902, 1929)[329], the Egyptian government claims to have veto power over any kind of water project that would interfere with its interests[330] as well as to have "natural and historic rights in the waters of the Nile"[331]. The 1929 agreement between Egypt - which was already granted a certain degree of autonomy in 1922 - and the United Kingdom (on behalf of Sudan)[332] allocated 48 bcm of the annual natural flow of the Nile as acquired rights to Egypt and 4 bcm to Sudan (ratio 12: 1)[333]. Since the 1952 revolution, the relationship towards Sudan had played an essential role in Egypt's foreign policies, which an Egyptian strategist summarized as the following: "Egypt gets its waters from the Nile which flows in the heart of the Sudan. The Nile to Egypt is a matter of life or death"[334]. The plan to establish the Aswan High Dam within Egypt's territory, to fully control it, would nevertheless have transboundary consequences: the created reservoir of Lake Nasser would wipe out 300 km of agricultural land along the Nile and flood regions within the Sudan, leading to the displacement of communities[335]. Thus, already four years before Sudanese independence, the government was informed about the project. However, they did not receive more details while the Egyptian government and press made it increasingly public[336]. This emphasizes the relevance of the coexistence with the national level of promoting the project. Although the Egyptian government started to portray the project as a joint one, promising benefits for both countries[337], the Sudanese

[328] Waterbury 2002: 67; See also: Deng 2011: 49.
[329] During British colonial rule (1882-1952), the imperial power sought to establish a legal monopoly over the Nile with the help of two treaties (Gebreluel 2014: 26). The "Nile Treaty 1902" was signed (not ratified) between Ethiopia and the United Kingdom. Article 3 states that Ethiopia cannot construct any work across the Blue Nile, Lake Tsana or the Sobat that would influence the flow of their waters into the Nile unless the UK government agreed on it (Salman 2013: 18; Bayeh 2016: 1). The "Nile Waters Agreement of 1929" was signed between Egypt and the United Kingdom on behalf of Sudan and the riparian countries of Lake Victoria to determine the water shares of the Nile (Mekonnen 2017: 258; Swain 2011: 690). It included the provision that prior consent of the Egyptian government is necessary for any irrigation or hydropower generating works along the Nile, including the Sudanese territory (Salman 2013: 18; see Lester 1963: 500).
[330] Salman 2013: 19.
[331] Bayeh 2016: 1.
[332] From 1899 till 1965, Sudan was under a dual administration of Egypt and the United Kingdom, also called: the Anglo-Egyptian condominium (Taha 2006: 337; See the whole article for more information).
[333] Abdalla 1971: 332; Waterbury 1987: 95; Woldetsadik 2015: 372.
[334] Zaki 1948 cited in Ismael 1968: 175.
[335] Barbour 1980: 86; Haynes and Whittington 1981: 18.
[336] Abdalla 1971: 330.
[337] Ibidem.

government regarded it for long as a purely Egyptian one, evident by a quote of the Minister of Irrigation and Hydro-electric Power: "the High Dam is an Egyptian project the plan of which was discussed in Egypt and its design was also prepared in Egypt […] The project secures no benefit to the Sudan"[338]. A political factor additionally affected this tension. The result of the elections in 1953 indicated that the majority of Sudanese would be in favor of a sovereign state - which was then realized in 1956 - instead of entering a union with Egypt as was generally assumed by the latter due to their cultural, economic and political ties[339].

On the 9th of January 1954, Sudan entered the transitional period towards self-governance and by August all British as well as Egyptian officials ceased their posts[340]. This might explain why Nasser eventually agreed to the offer of the World Bank's comprehensive study in November 1954. Several technical discussions on the project then occurred in Khartoum in late 1954. The delegates of both countries started to negotiate an agreement to fairly divide the annual flow of the Nile by April 1955[341]. This chronology of events underlines the claim of Woldetsadik, a law historian, that both intended to "undermine British hydro-political leverages in the region"[342]. The Sudanese hydraulic engineers envisioned the controlling of the river Nile by several small dams, considering the Nile valley as a single unit[343], which was actually a legacy of British colonialism (as has been already discussed). The Egyptian delegates rejected this suggestion - officially - for technical and financial reasons[344]. The historian Abdalla argues that for the Egyptian delegates this idea was indeed not an option since it would demand cooperation among all respective states. This would cost time and make Egypt dependent on political stability with the other states[345]. However, due to the plan to extend domestic agriculture and the need for more water shares, it was also in Sudan's interest to negotiate a new water share[346]. As a response to Egypt's insistence on the Aswan High Dam as the only option and the emphasis that a combination with other upper Nile projects would lead to maximum net profits for both, the Sudanese delegates agreed on the construction.

[338] Cited in Abdalla 1971: 330.
[339] Abdalla 1971: 330; Baddour 1960: 215.
[340] Ibid: 173ff.
[341] Ibid: 214.
[342] Woldetsadik 2015: 373.
[343] Batstone 1959: 526.
[344] Baddour 1960: 215.
[345] Abdalla 1971: 329.
[346] Ibid: 331.

However, there were conditions[347]. Those included that (1) the Sudanese share of the Nile should be determined before the construction of the Aswan High Dam starts, that (2) Sudan should be free to build any water work and that (3) an alternative livelihood for the inhabitants of the affected Wadi Halfa region should be provided for in time as well as the required transportation paid for by Egypt[348].

In principle, the Egyptian delegates agreed on paying compensation and considered the second condition as naturally given by a new agreement[349]. Hence, the crucial condition was to find a basis on how to determine the share of the natural flow of the Nile, which was agreed to be 84 bcm annually, measured at Aswan[350]. Several meetings took place till 1958 to discuss the options[351]. The Sudanese delegates demanded for a ratio on the basis of either the relative population or of irrigable land, strictly rejecting a fixed quota[352]. The first option would have been conducted on the basis of 2:1, giving Egypt two thirds and Sudan one, while the second option would favor Sudan even more due to its larger amount of fertile land[353]. A third option was linked to H.T. Cory's proposal, which included to respect the already established rights and then equally dividing the surplus supply[354]. H.T. Cory was an American engineer, who was not only the American representative of the "Nile Projects Commission" in 1920[355] but prior to that had been the chief engineer of one of the early projects of taming the Colorado river[356]. His ambitious endeavor - with a new approach after his predecessor failed - was successful in 1907; however, it was only temporary[357]. It was one of the few attempts whose failure resulted in the idea of constructing a multipurpose dam to harness the wild river: the Hoover dam[358]. This entanglement again indicates the relevance of established expertise and of the transfer of ideas since the proposal was already made more than thirty years ago; however, the expertise of a foreign actor was still considered among the regional actors.

[347] Baddour 1960: 215.
[348] Batstone 1959: 546f.
[349] Ibid: 547; Abdalla 1971: 332.
[350] Ibidem.
[351] Ibid: 331.
[352] Ibid: 332.
[353] Batstone 1959: 247f.
[354] Baddour 1960: 216.
[355] Nile Projects Commission 1920: 6; See the whole minority report of Cory in Chapter IV, Sec. Two.
[356] Tobin 2001; Boyer et al. 2007: 25.
[357] Tobin 2001; Boyer et al. 2007: 28.
[358] National Park Service 2018.

As the Egyptian delegation did not agree on giving up established rights, it offered various counter-suggestions with a fixed quota[359]. In January 1958, the Sudanese delegation turned down the latest offer without informing its government[360]. This demonstrated that the bargaining on both sides was not fruitful. Egyptian-Ethiopian relations were further challenged by a rising border dispute[361] and the unilateral raising of the reservoir of the Sennar dam in Sudan in July 1958 violated the 1929 agreement[362]. The Sudanese government referred to its sovereignty, rejecting all colonial treaties that were signed by the UK[363]. In the course of these events, the issue was now lifted to the highest political level. As Egypt's interests appeared threatened, the media turned hostile on Abdullah Khali's administration. However, the Sudanese prime minister was forced to renegotiate due to pressure from the opposition, and the fear of being replaced within his own party due to an unstable financial situation and societal dissatisfaction[364]. Believing rumors that the opposition supported by Nasser intended to replace him by a coup d'état, he forestalled the latter by overhanding command to Ibrahim' Abbud, the Commander-in-Chief of the Sudanese Army, in November 1958[365]. When the new regime declared the former negotiations as artificial but also their willingness to restore relations, Nasser took the chance and recognized the new regime[366]. As a response, Abbud sent Nasser a massage, giving support for the dam and stating that they would "soon be sitting together as brothers to settle the pending problems between the two countries"[367]. Having in mind that the negotiations already took six years, the agreement was closed surprisingly fast in November 1959 after one month of discussions[368]. Since the Egyptian government had already signed the contract with the Soviets, it was eager to speed up the process. This was welcomed by the Sudanese regime, who depended on an agreement in order to access World Bank financing for its own planned dam: the Roseires dam[369]. This constitutes the second incentive of the international financial institution in the course of events.

The final *Nile Waters Agreement of 1959* allocated out of the 84 bcm annual Nile flow, 55,5 bcm to Egypt, 18,5 bcm to Sudan and left the remaining 10 bcm for other factors,

[359] Abdalla 1971: 332f.
[360] Ibid: 333.
[361] Ibidem.
[362] Ibidem.
[363] Degefu 2003: 130; Deng 2011: 49.
[364] Sudan faced a poor cotton production and the government failed to sell it fairly (Abdalla 1971: 334).
[365] Ibid: 335.
[366] Baddour 1960: 232.
[367] Abdalla 1971: 336.
[368] Baddour 1960: 234f.
[369] Abdalla 1971: 336.

such as evaporation[370]. Thus, the agreement eventually laid the basis for sanctioning the construction of both dams and it realized the full control and utilization of the Nile waters[371]. Thus, eventually Egypt proved to have more bargaining power since its idea of a fixed quota was implemented and the government had to pay half of the compensation than demanded by Sudan[372]. According to Abdalla, the reason for Sudan's change in direction was probably linked to the priority of establishing stable political relations[373]. This is supported by the quick closure of the agreement. The promptness of the course of direction is also evident by the fact that Batstone's article, published in July 1959, which described the discussions still as a "deadlock"[374]. Besides, it was negotiated by officers of the Supreme Council of the Sudan Armed Forces, who did not have any engineering or hydrologist background and earned criticism from the society[375]. The fact that previously established rights were considered[376], shows the similarity to Cory's proposal and thus the relevance of foreign actors. However, the yet unappropriated water was not equally divided as he suggested: the remaining 22 bcm[377] were divided by a ratio of 2:1 in favor of Sudan, leading to the new overall ratio of 3:1 in favor of Egypt[378]. However, there is also a provision that any water in excess of the annual flow of the river should be equally divided[379]. As a consequence of this agreement, Egypt's historical demands were institutionalized[380] and fueled Egypt and Sudan's belief that the Nile would be their "exclusive resource domain"[381]. The agreement was negotiated without the consultation and participation of the upstream states[382] and was never accepted by Ethiopia as legitimate[383]. This already indicates the agreement's relevance for the third case study. It also foreshadows the cooperative nature of Egyptian-Sudanese relations in the post-1959 period[384], promoting their dominance in the Nile basin[385].

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[370] Bayeh 2016: 1; Abdelhaleem and Helal 2015: 462; Motlagh et al. 2017: 75.
[371] Mekonnen 2017: 260; Salman 2013: 19.
[372] Initially, Sudan requested for 30 million Egyptian pounds (Abdalla 1971: 337) but had finally only to pay 15 million for compensating the resettlement of the 50 000 people (Swain 2011: 690).
[373] Abdalla 1971: 337.
[374] Batstone 1959: 556.
[375] Abdalla 1971: 337; Waterbury 1987: 97.
[376] Baddour 1960: 236.
[377] 84 bcm (total) deducted by 48 bcm (Egypt), 4 bcm (Sudan) and 10 bcm (evaporation etc.).
[378] See for a more extensive explanation: Waterbury 1987: 97.
[379] Abdalla 1971: 337.
[380] Menga 2017: 103.
[381] Woldetsadik 2015: 372.
[382] Gebreluel 2014: 27.
[383] Whittington et al. 2014: 596.
[384] The agreement included the establishment of a Technical Committee with an equal number of members from both countries to jointly discuss future requests by other riparian states (Salman 2013: 19).
[385] Swain 2011: 690.

6.5 Planning and Promoting the Aswan High Dam

The outcome of the financial negotiations on the international level determined the national level of planning and realization of the project. In effect, it was shaped by a bilateral Egyptian-Soviet agreement, while the regional level of legal negotiations sanctioned it. Evidently, it was the first major project with Soviet assistance[386]. Soviet engineers of the "Hydroproject" designed the Aswan High Dam in collaboration with Egyptian engineers[387]. According to the scholars Rycroft and Szyliowicz, Soviet engineers considered the original plans of the project but were initially overwhelmed by the design's nature. However, after having conducted their own research, they made only minor adjustments[388], indicating the legacy of former actors. The direct engagement of Egyptians, not only as unskilled workers, but as well as engineers[389] can be seen to have been encouraged through Nasser's early and ambitious higher education reform. Besides, Nasser and the government tried to engage citizens indirectly by attempting to generate support and pride for the project: It was steadily portrayed by newspapers, in the radio and on the television to create constant awareness, picking up on the famous slogan "Our fathers built the pyramids. We are building the High Dam" [390], which seemed to reflect the general attitude of Egyptians at that time[391]. This rhetoric is similar with Nehru's since he called his dam projects "the new temples of modern India"[392]. The promotion material of the government included also the production of stamps, which showed a picture of the dam site and stated the various goals connected to the project[393]. A pamphlet of the dam, published in 1967, propagates the aspirations of the project that reflect the nexus, they are embedded in:

"The High Dam's value lies in that it represents the determination and free will of a nation, looking forward in pride and dignity and insisting on translating into practical action the aspiration of the people for a better standard of living"[394].

Furthermore, the project was compared with other modernist projects when claiming that the dam's water reservoir would have "6 ½ times the capacity of the Hoover Dam"[395],

[386] Biswas 2002: 26.
[387] Kable 2018.
[388] Rycroft and Szyliowicz 1980: 46.
[389] Mossallam 2014: 297.
[390] Holz 1968: 230.
[391] Ibidem.
[392] Biswas and Tortajada 2001: 11.
[393] Lemons 2017: 6f.
[394] Ibid: 7.
[395] Ibidem.

constituting an entanglement of rhetorical nature that underlines the Hoover dam's relevance. Journalists were caught up in the enthusiasm surrounding the dam and the popular anthem "The High Dam" (1960) was sung likewise by citizens, students, volunteers at the construction site, and workers themselves[396]. This indicates the merging of the levels of promoting and constructing the dam. In 1964, when the first construction phase was completed, Nasser stated: "Here are joined the political, social, national, and military battles of the Egyptian people, welded together like the gigantic mass of rock that has blocked the course of the ancient Nile"[397]. Nasser successfully promoted the rhetoric of "after the dam!"[398], meaning that the realization of the many aspirations could only be felt after the dam's completion, which actually fueled expectations[399]. Regarding the Soviet actors' engagement, Nasser celebrated the cooperation by constructing a huge monument[400] and accepting Khrushchev to give a speech at the inauguration of the Aswan High Dam. He described the project as the start of "drown[ing] capitalism"[401]. Until Nasser's death in 1970, Egypt maintained strong relations with the Soviet Union, while his successor Anwar Sadat would focus on enhancing relations with the West[402].

6.6 Constructing the Aswan High Dam

Finally, it is interesting to analyze how this cooperation materialized in the daily construction work on the local level and how Nasser engaged (with) the workers. The dam was built near the city of Aswan[403] at an existing reservoir and as a new type of rock-fill dam[404]. The actual construction started in January 1960[405] and was finalized ten years later[406], resulting in a 100 meters high, five kilometers long and - at the base - one kilometer wide dam with twelve turbines for producing 2100 MW hydropower[407]. According to the researcher Mossallam[408], more than 30.000 Egyptian workers were involved in the construction[409]. Apart from technicians and engineers, most of them were peasants, oppressed by their landowners, and were inspired by Nasser's promises of

[396] Reynolds 2017: 215.
[397] Nasser 1964 cited in Reynolds 2017: 215.
[398] Reynold's refers here to the account of the Egyptian writer Safynaz Kazem (Reynolds 2017: 215).
[399] Ibidem.
[400] Neher n.d.
[401] Biswas 2002: 25.
[402] Waterbury 2002: 69.
[403] Scudder 2003: 1, 3.
[404] Stroitel'stvo 1969: 589.
[405] Holz 1968: 230.
[406] Mossallam 2014: 298.
[407] Scudder 2003: 3; Lappin 2000: 376.
[408] This chapter will mainly rely on Mossallam's account as she conducted interviews with the workers.
[409] Mossallam 2014: 298.

freedom and were thus motivated to learn and to work at the dam to become part of the historic epic[410]. By being introduced to the construction plans and being asked by the Soviet supervisors to express criticism, they developed a sense of ownership[411]. Indeed, they regarded themselves as the "builders of the Dam"[412] and as members of a new class that would "transcend the boundaries and limitations of the old system"[413]. Not only the workers were inspired by Nasser and incorporated his words into their motivational songs but also Nasser himself addressed the heroic experiences of the builders in his speeches[414], awarding them agency. He also visited them several times on the ground, comparing their struggle to the wars that he had been fighting (Suez Channel Crises)[415]. Similarly, also the Soviet engineers were made heroes by Soviet artists[416]. Just like in the case of the Soviet's dam, on-site training centers for the workers were established, enhanced by the demand of the Soviet specialists for more skilled labor, resulting in the fact that some workers could became technicians and the latter trainers[417]. Mossallam's research shows that some workers started to appreciate education and sent their children to school with their earned money. Some talented sons of unskilled laborers were granted scholarships in Russia, which was perceived as a sign of overcoming feudalism[418].

The Egyptian workers as well as the Soviets were given income, a meal, transport, health services and accommodation, although the living conditions strongly varied between them[419] and thus did not create the generally promised egalitarian community on the construction site. The reshaping of the worker's identity was, all in all, owed to Nasser, which is evident by the fact that their societal acknowledgment vanished after his death as the new president tried to obscure Nasser's achievements, which left the workers as "third class citizens" without retirement benefits[420].

7. The Akosombo Dam Case

The following sub-chapters will discuss the second case, addressing the Akosombo Dam in Ghana. The analysis will be structured in accordance with the previous one; however,

[410] Ibid: 197f., 300.
[411] Ibid: 306.
[412] Ibid: 302.
[413] Ibidem.
[414] Ibid: 300.
[415] Ibid: 303.
[416] Kitabi 2012: 8.
[417] Mossallam 2014: 305.
[418] Ibid: 302, 305.
[419] Ibid: 313.
[420] Ibid: 302.

a regional level in terms of legal negotiations is left out as it does not indicate relevance for the implementation process and for entanglements with the other case studies.

7.1 Origin and Role of the Akosombo Dam

The Akosombo Dam (1961-1965) was the first dam project to emerge from the Volta River Project (VRP), followed by the Kpong dam (1977-1982) and the Bui dam (2009-2013)[421]. The Akosombo Dam would constitute the centerpiece of the VRP and was the only dam project to be realized under the political leadership of Kwame Nkrumah[422]. The idea of making use of Ghana's hydropower potential for an aluminum industry in order to process Ghana's ample bauxite resources was initially suggested in 1915 by the Director of the Gold Coast Geological Survey, Sir Albert Kitson, to serve London's demands and was thus an idea of the British colonial administration[423]. Just as Western countries increasingly depended on energy resources from overseas after the Second World War[424], Britain's colonial development initiative aimed at establishing a fully integrated aluminum industry in the Gold Coast[425].

In 1951, when what is known today as Ghana entered the six-year long transitional period towards self-governance, the respective government under prime minister Kwame Nkrumah, later elected as the first president, with his Convention People's Party (CPP) adopted the idea[426]. However, it was reshaped and, as the Volta River Project (VRP), was upgraded in scale and purpose to be part of a "multipurpose development-plan based on the needs of the region as a whole"[427]. This was emphasized as the key economic goal in the CPP's election manifesto[428]. The envisioned project was to realize agricultural and industrial modernization programs and thus to diversify Ghana's economy, which largely depended on cocoa exports[429]. Later on, the VRP became the centerpiece of Ghana's second "Seven-Year Development Plan", which served to implement the Party's "Program of Work and Happiness" (1962)[430]. According to the political scientist Anglin, it was Ghana's only hope for "economic diversity and stability"[431]. Nkrumah called it "a

[421] Miescher and Tsikata 2010: 15.
[422] Hoag 2006: 249.
[423] Hart 1978: 245; Miescher 2014: 343.
[424] Harris et al. 2009: 15.
[425] Miescher 2014: 341.
[426] D'Auria and Sanwu 2010: 5; Miescher 2014: 341; See also: Fuller 2015: 33.
[427] Moxon 1969 cited in D'Auria and Sanwu 2010: 4.
[428] Austin 1964: 13.
[429] Miescher 2014: 342; Hart 1977: 7.
[430] Office of the Planning Commission 1964: v.
[431] Anglin 1958: 158.

scheme which can change the face of our land and bring wealth and a higher standard of living to our people"[432]. In speeches to the National Assembly, Nkrumah identified the project in 1958 as "the quickest and most certain method of leading […] towards economic independence"[433] and justified it in 1961 by stating that "industrialization of Europe, of America, of Canada, of Russia […] emerged as a result of the intervention of sources of power of hitherto undreamt of size. Newer nations […], which are determined by every possible means to catch up in industrial strength, must have electricity in abundance"[434]. This illustrates the conglomerate of aspirations raised by former projects in the West as well as the Eastern bloc, the aspiration for a fast and absolute decolonization, expected to result in omnipresent benefits, thus reflecting the present nexus. In order to realize this symbol of nationhood and modernity, Ghana depended on foreign funds and technological expertise - contrary to Nkrumah's early socialist vision[435].

7.2 Domestic and Foreign Policy

The following subchapter will highlight that the aspirations surrounding the VRP, and thus the Akosombo Dam, reflect Nkrumah's and his party's perceptions of the course of Ghana's development. Then, the understanding of non-alignment will be discussed.

7.2.1 The Domestic Policy Dimension

Nkrumah's ideology, "Nkrumaism", appears as the fusion of already existing ideas: of Christianity, Western socialism, Gandhi's non-violence, among many other streams of thought[436]. Nkrumah sought to first achieve political independence for Ghana, followed by economic independence in the 1960s and then domestic restructuring towards an egalitarian society[437]. The liberation from colonial economic structures was hoped to happen across the continent later on by creating African enterprises based on communalistic socialism and non-exploitive principles[438]. His vision of a New Africa, which was independent and absolutely free from imperialism and based on a one and united Africa, was hoped to be realized by the combined strength from the traditional African belief that free development of one is the basis of free development for all as well

[432] Nkrumah 1952 cited in Tignor 2006: 197.
[433] Nkrumah 1958 cited in Asamoah 1991: 240.
[434] Nkrumah 1961 cited in Boateng 2003: 123.
[435] Hart 1977: 48; Hoag 2006: 248f.
[436] Smith 1991: 31.
[437] Hart 1977: 3.
[438] Gebe 2008: 165.

as from modern science and technology[439]. Thus, Nkrumah believed that the European (or US American) model of industrialization could be reiterated in Africa[440]. He has been exposed to these ideas when he received university education in the US and the UK in the 1930s and 40s[441]. The blueprint for the young nation's development, the second "Seven-Year Development Plan" (1963/4 till 1969/70), promised to provide Ghanaians with the basic means of life, including employment, food, shelter, medical treatment and education[442]. The foreword, written by Nkrumah, states that the productive labor of all people lays the material basis for a socialist society and that all people, who are willing to work, should obtain employment and benefit from the outcome instead of "any class of exploiters"[443]. In order to implement the Akosombo Dam and the VRP, Nkrumah had to sacrifice his initial anti-foreign investment rhetoric and the promotion of nationalization[444]. The new course in direction after 1964, embodied by the "Seven-Year Development Plan", promoted a transitional mixed economy by giving the stakeholder allocation regarding the Volta River Project (VRP) as an example[445]. This indicates the dialectic relationship between the project's implementation process and Ghana's overall domestic policy agenda as well as the overlapping foreign policy dimension.

7.2.2 The Foreign Policy Dimension

Referring to Anglin, Ghana's early foreign policy was highly shaped by Nkrumah's personal ideas[446]. Nkrumah participated in the Bandung conference in 1955 and integrated non-alignment as an essential part of his foreign policy after independence in 1957[447]. Just like Nasser, Nkrumah's concept of non-alignment should not be understood as a "blind policy of neutrality"[448] but as positive neutralism. This meant that Ghana could maintain independence and temporarily engage with either superpower in a non-committal way according to the best interests of the country at a given time and for pragmatic reasons[449]. Being aware of Ghana's limited role in international affairs (low economic levels, small size, small population number, military weakness) as a newly emerging and unexperienced country, Nkrumah sought to engage in friendly relationships

[439] Smith 1991: 31.
[440] Diaw and Schmidt-Kallert 1990: 5.
[441] Smith 1991: 31; Boateng 2003: 64f.
[442] Nkrumah in Office of the Planning Commission 1964: v.
[443] Ibidem.
[444] Noer 1984: 63.
[445] Nkrumah in Office of the Planning Commission 1964: x, xvi.
[446] Anglin 1958: 153; See also: Biney 2011: 135.
[447] Boateng 2003: 108; Biney 2011: 135; See also: Fuller 2015: 33.
[448] Gbedemah 1957 cited in Anglin 1958: 152.
[449] Anglin 1958: 152; Boateng 2003: 108f.; Biney 2011: 135.

with China, the USA and Israel among others. This implied not engaging in barter deals like Egypt (raw material in exchange for machinery), while attempting to maintain economic and political independence and to give a stronger voice to African states[450]. The following chapter will show how Nkrumah played out his non-aligned foreign policy when negotiating for the project's financing.

7.3 The Financial Negotiations of the Akosombo Dam

The actual financial negotiations did not start immediately due to the necessity of initial feasibility studies. Moreover, the dam was part of a larger project that was changed several times until it included the Akosombo Dam and the Tema aluminum smelter as the first phase of the Volta River Project (VRP), which needs to be discussed to present the engagement with the first set of international actors. The VRP was envisioned by the transitional government of Nkrumah in the early 1950s, considering the Tennessee Valley Authority (TVA) as an aspirational model that offered certain expectations for transforming the country[451]. The "Daily Graphic"[452] reported on the TVA's achievements and a visiting African American businessman, Lloyd Williams, declared the VRP as a necessity for Ghana's industrial growth, calling it a "a small Tennessee Valley"[453].

At that time, a British Aluminum Company (BACO) and a Canadian one (ALCAN) were interested in the project[454]. According to Nkrumah's Minister for Defense and External Affairs, the initial idea was to establish an integrated industry by using 90% of the produced hydroelectricity from a dam at Ajena for transforming bauxite into alumina via a chemical process in the plant and subsequently via electrolysis into aluminum in the smelter. This would secure employment for 15.000 workers. In local factories, roofing sheets and other items should be produced. The remaining - cheap - electricity would serve domestic use and promote industrial growth in Southern cities[455]. Both aluminum companies would have mining rights, build and run the factories and offer "new avenues for skilled and well-paid employment"[456], while the government would own and run the power plant and the electricity grid. The UK government presented its own suggestion (the White Paper), which was in many aspects in line with the Convention People's Party

[450] Decker 2000: 994; Anglin 1958: 152ff., 163.
[451] Miescher 2014: 345; See also Rock 2004: 63.
[452] The "Daily Graphic" constituted the most popular newspaper in Ghana (Miescher 2014: 342).
[453] Ibid: 345f.
[454] Hart 1978: 245.
[455] Miescher 2014: 345.
[456] Ibidem.

(CPP); however, the UK government demanded a scheme that would guarantee the supply of sufficient raw materials at competitive prices to the UK. It suggested the Gold Coast's reliance on loans, while not mentioning the latter's revenues and the training of Africans, which raised criticism from the CPP's opposition, backbenchers of the CPP itself and from the Cold Coast's press[457]. Hence, the Legislative Assembly of the Gold Coast was debating the project heavily; however, they were not questioning the project itself but rather its implementation and the question of political and economic control[458]. This reflects the strong influence of the modernization paradigm and its contradiction with the struggle for true decolonization.

Referring to the historian Miescher, opposition members accused Nkrumah and the CPP government for planning to realize an imperialist project with economic conditions that would not lead towards economic independence but rather create economic bondage, which was an assault to Nkrumah. As a response, he reaffirmed his nationalist attitude but insisted on promoting the international partnership as a necessity for Ghana's development. He clarified that the financing of the smelter by the UK would be a loan and thus did not symbolize foreign control[459]. The account of the Ghanaian historian Boahen provides an explanation for Nkrumah's behavior. He argues that Nkrumah had been highly influenced by his two economic advisors, the Caribbean W. Arthur Lewis and the Australian Robert Jackson, who were convinced that foreign capital is fundamental for industrialization and that Nkrumah had to secure the interest of foreign investors[460].

In order to address the criticism of the project, Nkrumah and the CPP engaged a neutral Preparatory Commission to examine the technological and economic feasibility of the project as well as to address questions of labor recruitment and training in an extensive way between 1952-1955[461]. Thus, Nkrumah's ambition to engage promptly with foreign actors in an international cooperation was restricted due to domestic pressure, reinforced by the idea of true decolonization. Nkrumah proposed some international experts to help assess the report's outcome. Among them was the first chairman of the Tennessee Valley Authority (TVA), Arthur E. Morgan. The results indicated that the project was legitimate

[457] Ibid: 346.
[458] Hart 1977: 21.
[459] Miescher 2014: 347f.
[460] Boahen 1975: 198f. cited in Hart 1977: 22.
[461] Miescher 2014: 348.

but would result in higher costs[462]. At the time of the report's publication in July 1956, global aluminum prices fell due to an oversupply and the two companies lost interest[463].

After Ghana's independence in 1957, Nkrumah and his government started to revitalize the project by searching for financial investors for the public sector to construct the dam and the necessary infrastructure as well as for private aluminum companies to mine the bauxite, to build and to run the smelter[464]. Since the US government had already engaged in development programs with African nations in order to prevent co-operations with the Soviets[465] and a "group of fast-talking American promoters"[466] showed in general interest but lacked the financial capacities, Nkrumah wrote a personal letter to Eisenhower in November 1957 after his Minister of Finance was not successful in acquiring funds from different Western financial capitals[467]. Eisenhower did not commit himself to the project but made vague promises, which was at least helpful for Nkrumah to re-start engaging with other potential actors, while the US would be still the last and promising resort since the fiasco of the Aswan High Dam was "still fresh in the memory"[468]. Thus, the geo-political environment and the entanglement had the potential to increase his bargaining power, despite the lack of tangible power resources. Some events that happened during the past months need to be mentioned in this regard:

In August 1957, Nkrumah stated with regard to general diplomatic relations with the United States, Britain and France: "Nevertheless, although we have special relationships with these three Great Powers, I am sure that they would be the first to appreciate the realistic reasons why we, as a small country, should endeavour to preserve normal relations with the two other Great Powers of the world today, the Soviet Union and China"[469]. Thus, he applied a similar rhetoric like Nasser by using his limited tangible power resources as a tool to generate support. His Minister of Finance had mentioned in a radio interview in London in September 1957 that Ghana would "look "elsewhere" if she were unable to finance the Volta River project in the West"[470]. It is important to mention in this context that the Soviets launched Sputnik in October 1957, which led

[462] Ibid: 350f.
[463] Hart 1978: 246; Anglin 1958: 159; See for more information: Moxon 1969: 85f.
[464] Miescher and Tsikata 2010: 19; Miescher 2014: 355.
[465] Ibidem.
[466] Anglin 1958: 158.
[467] Ibid: 159.
[468] Ibidem.
[469] Nkrumah 1957 cited in Anglin 1958: 162.
[470] The „elsewhere" was actually not meant to refer to the Soviets and the speaker earned criticism from his government for the formulation of his statement (Anglin 1958: 194).

Western anti-communists finally to believe that the Soviets "cracked the problem of innovation"[471]. In terms of multipurpose river development, a report from a US Senate Committee in 1957 expressed concern about the communist's capabilities of executing such projects[472]. When Nkrumah sent a diplomat to Eisenhower later on, he returned with the contact to a well-known American company to re-assess the project in 1958: "Kaiser Engineers and Constructors", a subsidiary of Kaiser's[473], who participated in building the Hoover dam. Thus, US interest was eventually attracted, indicating the relevance of the entanglement with the Aswan High Dam and of established Soviet engineering expertise, which sought to be pre-empted by established American engineering expertise.

The report suggested a cheaper and more modest version of the original plan, situating the earth-filled main dam at Akosombo and future dams at Kpong and Bui, as well as a fundamental change: the smelter at Tema should refine imported instead of local bauxite[474]. Apart from agreeing on the made suggestions, Nkrumah confirmed that Ghana would sell the produced electricity from the hydropower dam at a discounted rate to "Kaiser Aluminum" to run the Tema Smelter[475] in order to realize the project. The scholar Shapiro calls this necessary compromise the highest point of neocolonialism[476]. Nkrumah told his skeptical advisers: "I cannot always follow this advice as I am a politician and must gamble on the future"[477]. It is worth to highlight that the report, which must have been read by Nkrumah before making a decision, clearly states that "[t]here are ample reserves of acceptable quality bauxite to support a substantial aluminum industry in Ghana"[478] and even suggested to increase the production capacity. However, the need to reduce costs demanded for sacrificing the bauxite mining and the respective smelter, which was never published[479].

Meanwhile in July 1958, Nkrumah had visited Eisenhower personally to discuss the possibility of US aid for the construction of the dam and said openly in the US Senate that he did not want to receive gifts but investment at fair interest rates. He also guaranteed that he would never nationalize the foreign holdings[480], which marked - apart from

[471] Edgerton 2007: 24.
[472] Lagendijik 2015: 80.
[473] Hart 1978: 247; See also Miescher 2014: 355.
[474] Hilton 1966: 251.
[475] Miescher and Tsikata 2010: 19.
[476] Shapiro 2002: 90.
[477] Miescher 2014: 355.
[478] Kaiser 1959 cited in Hart 1977: 30.
[479] Ibidem.
[480] Noer 1984: 63.

considering foreign private investment - already the second major concession of his early socialist vision and the giving away of his ideological conviction. Being criticized for not actively assisting the liberation struggles of emerging African and Asian states and due to the "haunting memory of the aborted Aswan Dam project in Egypt"[481], Eisenhower agreed to finance the project[482]. This shows the strong influence of the ideological power struggle and the principle of decolonization on Eisenhower. However, no final agreement was signed and could not be signed since soon after that the liberal Democrat John F. Kennedy replaced Eisenhower[483]. Accepting "Third World neutralism" and not demanding political support in return for economic aid, Kennedy was a strong supporter of the VRP[484]. The Kennedy administration renewed Eisenhower's commitment and was willing to provide a loan of US$ 37 million, while the World Bank was to offer US$ 47 million and the UK government US$ 14 million[485], having interest rates between 3,5-6% and sought to cover half of the costs for the Akosombo Dam and the power plant[486].

Even though Nkrumah was amid securing financing for the project, he sought to balance the influence of the Western and Eastern powers by commissioning a Russian engineering company, "Technopromexport", to conduct a feasibility study of the Bui dam[487], which was suggested by "Kaiser Engineers". Apart from this, Nkrumah left the territory of Ghana for an eight-week-tour to the Soviet Union and China where he extoled the Soviet commitment to African states, discussed purchases of cocoa and criticized American imperialism[488]. In general, Nkrumah became more radical in the course of the last years, leading to more and more state control, restricting the freedom of speech and press and criticizing the US, in particular the US intervention in the Congo crisis[489]. The US Congress started to oppose the funding of the VRP and Kennedy was confronted with the dilemma of either mitigating domestic criticism or risking another dam being built by the Soviets[490]. This shows that Nkrumah's achieved bargaining power by opening a Third Space of Maneuver with his non-aligned strategy and the entanglement with the Aswan High Dam was again threatened by his own actions.

[481] Ibid: 64.
[482] Ibidem.
[483] Ibidem.
[484] Schlesinger 1965: 551.
[485] Miescher 2014: 357.
[486] Hart 1977: 31, 37.
[487] Miescher and Tsikata 2010: 26; Miescher 2014: 357.
[488] Noer 1984: 64, 71.
[489] Ibid: 64; Decker 2011: 1000.
[490] Miescher 2014: 357.

Not being sure if the US would continue to consider funding the project, Nkrumah announced in May 1961 that the Italian construction firm "Impresit" had offered US$ 45 million to construct the dam and signalized that he would agree in case the US government would not express a prompt commitment[491]. Thus, it was now Kennedy's turn to write a letter to Nkrumah, promising to commit himself personally[492]. Since no further action was taken, Nkrumah announced that he would send 400 Ghanaian troops for training to the Soviet Union, while reminding Kennedy of his moral commitment in a personal letter[493]. Nkrumah did not fulfill the subsequent American demand to express neutrality as a condition but only stated publicly his non-alignment in the Cold War context[494]. Kennedy's administration held several meetings to debate whether to support the project and therefore Nkrumah's leadership or to break with their moral commitment, which was considered in many African countries as a test of the administration's seriousness on providing politically unconditional economic assistance. Several attempts followed to convince Nkrumah to make concessions publicly, while he remained reluctant[495]. Eventually, Nkrumah could no longer resist the pressure and made an open statement that he was a true neutralist, while highlighting the advantages of private and foreign investment, promising not to expropriate "VALCO" (consortium with "Kaiser Aluminum" as the main company) and to grant more political freedom to Ghana in order to realize the project[496]. Thus, he sacrificed his own vision, and accepted the official giving away of his personal ideological convictions.

The US government could now arrange for the US$ 37 million loan, while granting "Kaiser Aluminum" US$ 96 million as a loan and US$ 128 million as a risk guarantee[497]. Nkrumah received the approval by the National Assembly in February 1961 after highlighting all the assumed benefits for the country's industrialization and the diversification of the economy[498]. The Volta River Development Bill, which set up the Volta River Authority (VRA), was rushed through in a very short assembly session[499].

[491] Noer 1984: 70.
[492] Ibidem.
[493] Ibid: 71f.
[494] Ibid: 73.
[495] Ibid: 74-77.
[496] Ibid: 78.
[497] Ibid: 74f.; Miescher 2014: 385.
[498] Hart 1977: 32.
[499] Ibid: 33f.

Likewise, the debate of the Legislative Assembly on the so-called Master Agreement for the VRP proceeded in an unopen manner, hardly mentioning its terms[500].

7.4 Planning and Promoting the Akosombo Dam

The previous chapter has already demonstrated the strong overlap and entanglement of the international level of financial negotiations and the national level of project planning since the financial agreement depended on the project's reassessment by "Kaiser Engineers and Constructors". Referring to the historian Decker, Kaiser's president, Edgar Kaiser, and his vice-president, Chad Calhoun, played an important role since they were consulting Nkrumah throughout the whole planning process, resulting in extremely close and warm relationships[501]. According to Miescher, they stepped in to mediate between Kennedy and Nkrumah during crucial points of the discussion[502], blending the international level of financial negotiations and the national level of planning even further due to their double function. Nkrumah himself confirms Decker's observation: while calling Edgar Kaiser a friend, he stated that Edgar's late father, Henry Kaiser, "has been a tower of strength and inspiration to Edgar and [him]self throughout [their] efforts on this project"[503]. This indicates again the meaning of single actors for fueling aspirations.

The Volta River Authority (VRA) had the task of implementing the project and administering the foreign and national budget, having Nkrumah as a chairperson[504]. While "Kaiser Engineers" were supervising the construction of the dam after designing it, the contract to build it was won by "(Salini) Impregilo"[505], a consortium of Italian firms, which has just successfully finished to build the Kariba dam in Zambia, receiving the necessary components from Japanese, Canadian and Austrian firms[506]. "(Salini) Impregilo" started to construct Sudan's Roseires dam - the result of the 1959 agreement with Egypt - in the same year[507] and would construct the Grand Ethiopian Renaissance Dam later on, indicating the re-occurrence of an actor group and thus the entanglement

[500] Ibid: 35.
[501] Decker 2011: 994, 1003.
[502] Miescher 2014: 357.
[503] Nkrumah in Publicity Secretariat 1966: 1f.
[504] Hilton 1966: 251; Boateng 2003: 124.
[505] Today, the industrial group is called Salini Impregilo (Salini Impregilo 2018). The two Italian companies Impregilo and Salini Costruttori (the sole shareholder of Salini) merged in 2014 for competitive reasons (Salini Impregilo 2018c). The homepage of Salini Impregilo lists several dam projects that are relevant for this thesis as having been concluded by the group (Salini Impregilo 2018a; Salini Impregilo 2018b).
[506] Hart 1978: 248; Hilton 1966: 253.
[507] Salini Impregilo 2018a; See for its activities in Africa: Pallini and Scaccabarozzi 2015.

of the projects in a material sense as the multi-directional transfer of specific and established expertise manifested in the actual dams - after being successfully built.

Just like in the case of the Aswan High Dam, Nkrumah and the project's promoters had to engage the Ghanaians indirectly in the project as it was a tool to solidify political power[508]: Already during the work of the Preparatory Commission, the Department of Information Services (DIS), had to develop travelling exhibitions to tour throughout the country to promote the project's advantages to all Ghanaians. It included a short film that first depicts the achievements of "ALCAN" in the Saguenay river in Quebec and then envisions how such an industry could be created along the Volta river[509]. Thus, the power of a Western project was relied on to fire aspirations just like in the case of the Aswan High Dam. After the project's approval, the Volta River Authority (VRA) professionalized its own outreach programs to inform people all over the country about the Volta River Project (VRP), complemented by the possibility to visit the construction site, which president Nasser did among half a million other people[510]. For those who could not come to see the project themselves, the DIS and the VRA initiated another tour in 1965 to demonstrate that the dream was now becoming a reality, exaggerating the solely positive benefits. This was further promoted by the many positive reports of the than state-controlled media[511]. After four years of construction, the power station was switched on in September 1965 and the dam was officially inaugurated on the 22nd January of 1966[512]. In his speech, Nkrumah promoted the expected benefits of the project on the regional level: "we are ready and prepared to supply power to our neighbours in Togo, Dahomey, the Ivory Coast and Upper Volta. As far as I am concerned, this project is not for Ghana alone."[513] Transmission lines to Togo and Benin were indeed built in 1972[514].

The evening news compared Nkrumah's Akosombo Dam with the Aswan High Dam, declaring that both were built by governments with socialist aspirations and thus demonstrate "the beginning of the electrification of the Continent" and "an inspiration to Africa"[515]. The commissioning of the Akosombo Dam was reported, for instance, in

[508] Hoag 2006: 248.
[509] Miescher 2014: 351ff.
[510] Ibid: 359f.
[511] Ibid: 360ff.
[512] Hilton 1966: 251; Miescher 2014: 359.
[513] Nkrumah in Publicity Secretariat 1966: 5.
[514] Boateng 2003: 128.
[515] Miescher 2014: 362.

Tanzania. The perceived success of an African version of multipurpose river basin development, embodied by the Volta River Project (VRP), encouraged just as the model of the Tennessee Valley Authority (TVA) the political leadership under Julius Nyerere and respective planners to go ahead with their own project on the Rufiji River, which was already suggested by the United Nations Food and Agriculture Organization (FAO)[516]. However, the dam could not be realized as the course of financial negotiations coincided with the emerging criticism of the impacts and costs of large dam projects, in particular of the VRP, and the emergence of a new approach that focused on funding small and basic needs-addressing projects instead of symbols of modernity, while Tanzania's economic performance was too insecure[517]. This entanglement emphasizes the impact of promoting the project across national borders and the subsequent multiplication of aspirations. It illustrates the confrontation and merging of aspirations linked to the current nexus with the ones shaping the next decades and their re-configuration in the form of the next nexus. This indicates the relevance of facilitating a continuous embeddedness that helps to comprehend the driving forces of a changing zeitgeist.

7.5 Constructing the Akosombo Dam

The construction of the Akosombo Dam was finalized one month ahead of schedule: The main dam, a rock fill embankment dam, has a crest length of around 700 m and is 134 m high, being complemented with a second dam, intakes, two spillways and the power station that generates 1.020 MW. The created Lake Volta has a surface area of 8,500 km and thus constitutes one of the largest artificial basins worldwide[518].

In the case of the Akosombo Dam, there is no information known to the author indicating that Nkrumah engaged personally with the workers on the local construction site, leading one to assume that he was frustrated as the generally promoted aim of generating many employment opportunities was not realized in terms of the Akosombo Dam. This will be discussed in this chapter. The initial suggestion (the White Paper), commissioned by the UK government, indicated ideas concerning the labor question far from realizing egalitarian cooperation: only white people were supposed to engage in skilled work, and Africans were to do the unskilled work for a much lower salary and stay in a distant place with less social services[519]. The absence of addressing the training of African workers

[516] Hoag 2006: 249, 253, 255.
[517] Ibid: 262.
[518] Salini Impregilo 2018; Volta River Authority 2018.
[519] Bird 1949: 15ff. in Hart 1977: 39ff.

was one of the reasons why the report was criticized[520]. As already mentioned earlier, Nkrumah suggested the Preparatory Commission to compile another report to address the criticism. This report stated that all involved parties agreed on "keeping the labour forces to a minimum"[521], which appears contradictory to Nkrumah's promise and the full-employment policy, setting the general long-term goal for Ghana[522]. George Padmore, one of Nkrumah's advisors, called it a shock for the people since it appeared as they had given away their rights to work[523]. In the meantime, documentaries of the Department of Information Service (DIS) presented the vision nation-wide that an "Africanization" of labor would occur on all levels, highlighting that Ghanaians would learn new skills and that the social welfare of workers would be a prime concern[524]. While 80.000 people were resettled in the region of Akosombo[525], only around 4,500 Ghanaian were employed to construct the dam during the peak period[526]. There were extraordinary differences between the shanty houses of the Ghanaian workers and the supervisor's housing area that was situated on a hill with a cool breeze, officially due to the "lack of flat land for building space"[527]. Therefore, Hilton's phrase "polyglot community"[528] appears too neutral to describe the manifestation of the White Paper's suggestion of segregation instead of creating an egalitarian worker community. This might explain why there was no reference to the workers and their benefits during the second round of the travelling exhibition starting in 1963[529]. By having a look at Nkrumah's quite extensive inauguration speech, it is striking that he mentioned the workers only in one sentence at the end of the speech: "I must record with pride the important role which thousands of Ghanaians have played at all levels and in all aspects of the scheme"[530]. To the contrary, Edgar Kaiser, who travelled to Ghana for this event, abundantly complimented the dedication and performance of the workers[531], which was repeated by the head of "Impregilo"[532]. This is not surprising since the multinational aluminum companies

[520] Miescher 2014: 346f.
[521] Preparatory Commission 1956: 27 in Hart 1977: 46.
[522] Office of the Planning Commission 1964: 5.
[523] Padmore 1953: 238f.
[524] Miescher 2014: 351, 353.
[525] Hart 1977: 69.
[526] This number was provided by Impregilo (Publicity Secretariat 1966: 15), other accounts indicate a much lower amount of workers during other construction phases (Miescher 2012: 373; Hilton 1966: 153).
[527] Hart 1977: 69.
[528] Hilton 1966: 153.
[529] Miescher 2014: 359.
[530] Nkrumah in Publicity Secretariat 1966: 5.
[531] Decker 2011: 1004.
[532] Kaiser in Publicity Secretariat 1966: 11; Lodigiani in Publicity Secretariat 1996: 15f.

benefitted well from the project, while it meant for the Volta River Authority (VRA) the "deep entry into debt"[533] due to the financial terms and the low revenues from selling the electricity[534]. It seems that Nkrumah was in discomfort due to the many compromises, undermining Ghana's political independence and prolonging its economic dependence. This is mirrored by his book "Neocolonialism, the Last Stage of Imperialism" (1965), where he heavily criticized neo-colonial activities in Africa, especially of the United States[535]. Though until his death, he declared the VRP to be the "most successful joint project"[536]. He admits in his book that even non-aligned states could not escape from a certain degree of neo-colonial pressure[537] and states: "as capitalism has come to the peak of monopoly, it is impossible for any of us to avoid dealing with monopoly"[538].

7.6 Interim Conclusion

This analysis placed the Aswan High Dam and the Akosombo Dam in the *decolonization-development-modernization-Cold War-nexus*, while considering entanglements and the interrelation of the various project levels. At the same time, it assessed the implementation of the political leader's theoretical developmental aspirations and actual non-aligned foreign policy strategies. Thus, it demonstrated that the materialization of the two large dam projects was the result of manifold negotiations and compromises, embedded in various mutual but also contradicting struggles and shaped by the interplay of human actor's interests and the zeitgeist. The nexus not only sets a theoretical framework to understand the political leaders' and the other actor's motives and actions, but to also clarifies the starting point and options that the geo-political environment provided for them. Indeed, its elements were actively used as rhetoric tools for bargaining. First of all, the element *modernization,* embodied by a large multipurpose dam, fueled certain aspirations and acted as a driver for realizing them. This was hardly debated by the various actors as it was supported and acknowledged on a general global level, having already before attracted actors from different backgrounds and thus having led to the breaking up of ideological, political and economic borders. Building up on this, the elements of *decolonization* and *development* were instrumentalized by the African political leaders to enforce support for their undertakings by making certain public

[533] Hart 1978: 250.
[534] Ibid: 250, 256; See for more information: Hart 1978: 250ff.
[535] Nkrumah 1965.
[536] Nkrumah 1973: 182.
[537] Nkrumah 1965: 20.
[538] Ibid: 32.

statements, while the element *Cold War* was used as a tactical threat to strengthen the latter when necessary. The re-negotiating attempts by other actors, such as the US government, indicate that they had to balance these elements by similarly demanding for a certain rhetoric, such as a specific political statement, or by undertaking concrete actions, such as making a loan offer or cancelling it off. These processes of re-negotiation are relevant for answering the central research question.

Regarding the Aswan High Dam case, Nasser sought to use the Cold War context for his negotiating strategy to increase his bargaining power, while detracting from his lack of sufficient tangible power resources. However, only after putting his non-aligned foreign policy into practice by purchasing arms from the Eastern bloc, he was successful in attracting the interest of the Eisenhower administration to fund the dam and thus initially opened a Third Space of Maneuver. Later on, various political reasons led to the withdrawal of the US government, which was also influenced by the loan offer of the Soviets, which Nasser also attracted unintentionally with his positive neutralism. This shows that the Third Space he thought to use for his maneuvering was also used by another actor to gain influence. In order to regain control and prove his political sovereignty, Nasser opted for a self-financing strategy by using the tangible power resource he could rely on: the Suez channel. However, the lack of necessary financial and human resources resulted in cooperation with the Soviets. The course of events shows that Nasser was successful in generating a Third Space of Maneuver since he managed to get financial support - immediately and also again later on - for a project he intended to implement without losing his face by making certain political commitments demanded by the West and by playing out a pragmatic rather than an ideological non-aligned approach. The revolutionary and military background of himself and his government not only corresponds to his actions but this image was helpful in sanctioning the project as it contributed to the regime change in Sudan and thus the speeding up of negotiations.

In terms of the Akosombo Dam case, it seems that Nkrumah also hoped to increase his bargaining power by applying a non-aligned strategy. In contrast to Nasser, who did not follow Eisenhower's demand to make a public pro-Western statement but nevertheless attracted a loan package in the first place, Nkrumah had to make several compromises on his socialist vision in order to realize the project. Although an initial agreement was made, Nkrumah started to engage more aggressively with his potential financial partner, criticizing the US and sympathizing with the Soviets in many ways. Nevertheless, three

factors saved the project's financing despite Nkrumah's volatile and hostile diplomacy: the pressure on Kennedy to support newly emerging nations and thus to prove to do better than Eisenhower by showing that his sympathy of "Third World Neutralism" is genuine, Kennedy's personal letter to Nkrumah with a personal and moral commitment and finally the entanglement with the Aswan High Dam. Thus, it can be said that the project was rescued by the Cold War environment and the acknowledgement of the struggle for decolonization and nation-building, showing that Nkrumah opened a Third Space with a high range of Maneuver in terms of eventually implementing a large dam project. However, it was at the expense of his personal-political visions and manifold changes in the project's composition and to disadvantageous social and economic conditions. The actual impact of both projects will be pointed out in the course of the next chapter.

Part II

8. Renegotiating Large Dams

After discussing the criticism of large dams, this chapter will present the World Commission on Dams (WCD) as a path-breaking signifier for another rush for large dams in the 21st century. While a dam or a model itself was previously framed as a catalyst for aspirations, the current signifier is a forum of actors, officially embodying the conglomerate of emerging ideas and values concerning equity and sustainability. The chapter will discuss to what degree the traditional major financer, the World Bank, as well as the new global player in the dam building and financing industry, Chinese actors, reflect and present themselves as promoters of the *new international standards*, which were set by the WCD's report, and of the *"old" idea of state sovereignty*, which was presented in chapter 5.2. As the report was published in 2000 and the construction of the Grand Ethiopian Renaissance Dam (GERD) started in 2011, this time span is relevant.

8.1 The Criticism of Large Dams

Especially from the 1970s onwards, perceptions on development changed significantly and an awareness rose for the interdependence of people's actions across national boundaries as well as for their impact on the environment[539]. This process was paralleled with a growing controversy surrounding large dams in the Global North and the Global South[540] due to apparent experiences with their operation: interest groups argued that far-

[539] World Commission on Dams 2000: 17f.
[540] See for a history of the emerging opposition in various parts of the World: Ibid: 18ff.

reaching social and environmental effects were not considered and that the expected economic benefits were often not fulfilled[541]:

On the one hand, a growing body of literature assessed their impacts[542]. For instance, Goldsmith and Hildyard systematically analyzed projects worldwide in "The Environmental and Social Impacts of Large dams" (1984)[543]. Rich uncovered in his work "Mortgaging the Earth" (1994) the political and ecological impacts of the World Bank's lending[544]. Opponents shed light on significant corruption scandals, which resulted in an overestimation of project's benefits and denounced the undemocratic decision-making processes[545]. Patrick McCully, the former executive director of the influential advocacy group, International Rivers[546], presented the growing international resistance against dam constructions during the 1980-90s in "Silenced Rivers" (1997)[547]. The latter already points at the formation of resistance by locally affected communities in the Global South[548]. Already since the 1970s, the alliance of environmental activists and human rights groups of the Global North with NGO's and affected group's associations of the Global South influenced the planning process of individual dams, which was previously a restricted preserve of engineers and governments[549]. One influential incident was the Narmada controversy in India, where the construction of the Sardar Sarovar dam was stopped in May 1995 by the Supreme Court due to the resistance of the "Save the Narmada Movement" (NBA)[550]. Additionally, several Declarations were published by

[541] The World Conservation Union and the World Bank 1997: 10; Verhoeven 2012: 2.
[542] Hunter et al. (1982) analyzed the negative health impacts of large dams; Scudder (1973) examined the resettlement of affected communities; Worster's "Rivers of Empire" (1986) as well as Berkman and Viscusi's "Damming the West" (1973) focuses on reclamation, salinity and the cost-benefit analysis.
[543] It showed that basic objectives of dam projects have not been fulfilled but rather large social costs occurred, mirrored by the difficulties of resettling affected communities as well as the occurrence of cultural destruction. They observed new dimensions of health problems, evident from the spread of water-borne diseases, such as, of Malaria. They also point at the negative ecological consequences, such as, the loss of wetlands and the inability of some projects to control floods effectively (Goldsmith and Hildyard 1984).
[544] Rich (1994): x; See also Usher's "Dams as Aid. A political anatomy of Nordic development thinking" (1997), which discusses the political economy of aid by analyzing dam projects, especially Nordic dams.
[545] Verhoeven 2012: 2.
[546] International Rivers was founded in 1985 in order to advocate for the protection of rivers and the rights of communities depending on them. Thus, the members work with dam-affected people, grassroot organizations as well as environmentalists and human right advocates. Generally, International Rivers believes that large dams have many devastating effects and thus advocate against the "one-fits-all"-approach, by emphasizing alternative and case-specific solutions, such as small-scale, decentralized water supply and new renewables as well as large-scale efficiency and conservation options (International Rivers 2018a; International Rivers 2018b; International Rivers 2018c).
[547] McCully 1997.
[548] The World Conservation Union and the World Bank 1997:10.
[549] World Commission on Dams 2000: 19.
[550] The NBA was encouraged by the suggestion of an independent review commissioned by the World Bank, which recommended the reconsideration of the project's funding (Wood 2007: 20f.).

NGO networks: the "Manibeli Declaration" (1994), endorsed by 324 signatories from 44 countries, demanded for a moratorium on World Bank funding until a comprehensive review of existing projects is conducted[551]. The then coordinated global opposition contributed to the undertaking of respective policy steps by the World Bank[552], while its funding substantially declined in the mid-1990s[553]. Parallel to this phenomenon, many large dams were built in countries, such as Brazil, China, India, Indonesia, Turkey, Japan in the post 1975-period[554].

In 1998, the World Commission on Dams (WCD) was established by the World Bank and the World Conservation Union as one of the world's first multi-stakeholder forums[555]. It included representatives from governments, industry, NGOs, development banks as well as academia, aiming at conducting a holistic assessment of the role of large dams for development[556]. It is worthwhile to mention that the Volta River Authority (VRA) was involved as one of four river basin authorities, the World Bank as one of several multilateral aid institutions and the US Bureau of Reclamation (USBR) as one of six governmental agencies[557]. After two years of discussions, public hearings and extensive studies, the final report was published in November 2000[558]. It confirms that "[d]ams have made a significant contribution to human development"[559]; however, opponent's concerns are valid: "Dams have often not met their targets"[560]. For instance, regarding the financial-technical dimension, the report concludes that besides the overall achievement of producing 19% of the world's electricity, the benefits of large dams vary, often not achieving their economic and physical targets. Hydropower dams indicate a tendency to perform close, but below their intended targets. In general, large dam projects tend to have delays and result in significant cost overruns[561]. With regards to the ecological dimension, the report states that the negative impacts outweigh the positive

[551] Fujikura and Nakayama 2009: 186.
[552] World Commission on Dams 2000: 19; See also: Hensengerth 2013: 289; Patrick McCully refers to the study of the World Bank's Operation Evaluation Department (OED), titled 'The World Bank's Experience of Large Dams: A Preliminary Review of Impacts' (1997), as one of the first responses of the bank to the criticism. He argues that the review did not assess the development effectiveness and impacts of large dams in a comprehensive way. He criticizes the applied methodology and inadequate data, arguing it "displays a systematic bias in favour of large dam building" (McCully 1997a).
[553] Fujikura and Nakayama 2009: 187.
[554] Biswas and Tortajada 2001: 11.
[555] Chen and Swain 2014: 12.
[556] Adams 2012: 5.
[557] World Commission on Dams 2000: xviif.
[558] Fujikura and Nakayama 2009: 173.
[559] International Institute for Environment and Development 2001: 6.
[560] World Commission on Dams 2000: 21.
[561] Ibid: 68; For detailed information see Chapter 2 of the report.

ones, which include the loss of forests, wildlife habitat and species, the degradation of upstream catchment areas due to inundation of the reservoir area. As well, the rotting of vegetation and carbon inflows from the basins led to significant methane emissions[562]. Regarding the social dimension, the report states that 40-80 Million people have been displaced globally. The lack of adequate planning has led to lasting impacts on community's livelihoods and health as well as to a loss of cultural heritage[563].

According to the report, the latter was prevented in the case of the Aswan High Dam since UNESCO re-located monuments of ancient Nubia[564]. When discussing currently water-stressed countries, the report mentions Egypt, which withdraws almost 100% of its annual water resources, while almost all of the water used for irrigated agriculture is supplied by dams, mainly the Awan High Dam[565], indicating its relevance ever since. Scholars estimate its value for the Egyptian economy is equal to 2,7-4,0% of the annual GDP in 1997[566]. Besides, the dam operates positively in terms of flood control[567]. However, the benefits of natural flooding, such as restoring the fertility of the floodplain, are lost, while less sediment reaches the Nile delta, contributing to the coastline's erosion of up to 5-8 meters per year[568]. In the case of the Aswan High Dam and the Akosombo Dam, resettled communities received their compensation only after several years[569]. In both cases, the stagnant water of the reservoirs caused the spread of Schistosomiasis and thus severe public health problems[570]. The efforts of the Volta Resettlement Authority created more social services for the affected communities compared to before, though insufficient management caused general impoverishment[571]. Moreover, the report generally stresses that the lack of agreements on water usage among riparian countries of international rivers constitutes an increasing concern[572]. The WCD's suggested approach for the way forward and relevant aspects for the third case study will be discussed hereafter.

[562] Ibid: 92f.; For detailed information see chapter 3 of the report.
[563] Ibid: 129; For detailed information see chapter 4 of the report.
[564] The report calls it indeed an exceptional case as the heritage was not only conserved but generated a better understanding of cultural heritage (Ibid: 117).
[565] Ibid: 7, 13.
[566] The scholars used the computable general equilibrium (CGE) model to conduct a comparative-static simulation of Egypt's economy - with and without the dam in 1997 (Strzepek et al. 2008: 117).
[567] World Commission on Dams 2000: 59.
[568] Ibid: 59, 81, 85.
[569] Ibid: 103, 107.
[570] Ibid: 118.
[571] Ibid: 115f.
[572] Ibid: 191.

8.2 The Way Forward for Large Dams

By considering the view of dam proponents, who are convinced of the good performance of dams and their quintessential role for water and energy development and thus for nation-building[573], the World Commission on Dams (WCD)'s second task was to formulate a policy framework. This was to replace the former top-down and technology-focused approach by a constructive and innovative one[574]. It advocates for the involvement of all relevant stakeholders throughout the project cycle in order to promote a decision-making process based on negotiation and consensus[575]. Since the controversy on large dams is embedded in the broader debate on development itself, the framework was based on - supposedly - internationally accepted norms on human rights that are core to the "emerging global vision of equitable and sustainable development"[576]. Thus, it was based on the United Nations Charter (1945) and the Universal Declaration of Human Rights (1947) as well as the later adopted UN Declaration on the Right to Development (1986) and the Rio Declaration on Environment and Development (1992)[577]. Eventually, 26 guidelines and a set of criteria, which were finally presented as recommendations, mirror five core values; namely, equity, sustainability, efficiency, participatory decision making and accountability, as well as seven strategic priorities and corresponding policy principles[578]. All priorities will be briefly presented, while only those attached policy principles and guidelines which are relevant for this thesis will be discussed.

The first strategic priority, g*aining public acceptance,* recognizes the necessity of a demonstrable public acceptance of a project. This shall be achieved by recognizing and safeguarding the rights of affected communities, providing adequate information and negotiating agreements for key decisions in a transparent manner with the stakeholders[579]. The second priority, *comprehensive option assessment*, requires an assessment of alternatives towards constructing a dam by first identifying possible options and then considering financial-economic factors and social-environmental aspects equally for the analysis. This indicates already that national governments should conduct a thorough

[573] Ibid: 21.
[574] Chen and Swain 2014: 12.
[575] International Institute for Environment and Development 2001: 7; The report is a summary of the WCD's report.
[576] World Commission on Dams 2000: 196.
[577] Ibid: 199f.
[578] International Institute for Environment and Development 2001: 7-14.
[579] World Commission on Dams 2000: 215.

assessment before even making the decision to build a large dam as the best tool for implementing the government's development agenda and thus requiring more investment at an early planning stage[580]. It also calls upon consultants and agencies to safeguard that the study's outcomes are truly socially and environmentally acceptable[581]. Besides, aid agencies and multilateral development banks should approve financing only if a project "was selected from an agreed system of ranking, and respects WCD guidelines"[582].

The third priority, *addressing existing dams*, recognizes finalized projects not as static ones but demands for a continuous attempt to optimize the dam's benefits by addressing social and environmental issues and considering technological developments[583]. The fourth priority, *sustaining rivers and livelihoods*, means to avoid or minimize the adverse impacts of dams on river systems, on which ecosystems and communities depend, by selecting an adequate project site and design as well as by understanding, protecting and restoring the river basin[584]. The fifth priority, *recognizing entitlements and sharing benefits*, means that a national government and a "developer" should realize successful resettlement of affected communities, which means to improve the livelihoods of the latter and to provide legal means in order to promote accountability[585]. The sixth priority, *ensuring compliance*, means that stakeholders, such as national governments, developers and operators, meet all made commitments by applying a framework of incentives as well as sanctions, to ensure public trust and confidence[586]. The last priority, *sharing rivers for peace, development and security*, addresses the consequences of storing and diverting water of transboundary rivers for all riparian states and thus demands for constructive and peaceful regional co-operation, by concluding agreements that aim at sharing the mutual river and the associated benefits[587]. According to policy recommendation 7.1, agreements should be negotiated on the basis of good faith since there was not yet a globally binding legal instrument[588]. However, three principles of then not yet enforced 1997 UN Convention on the Law of the Non-Navigational Uses of International Water-courses[589] should provide a framework for good faith negotiations: '*equitable and reasonable*

[580] Ibid: 221.
[581] Ibid: 261f.
[582] Ibid: 16.
[583] Ibid: 225.
[584] Ibid: 234.
[585] Ibid: 240.
[586] Ibid: 244.
[587] Ibid: 251.
[588] Ibid: 251
[589] The Convention eventually entered into force on the 17th of August 2014 (United Nations 2018).

utilization' (meaning to consider the interests of all riparian states and thus promote the optimal sustainable use of the respective river), '*no significant harm'* (includes the vague obligation to avoid harm as well as to compensate for the latter) and '*prior information'*[590]. The latter is specified in guideline 26: the World Commission on Dams (WCD) recommends that riparian states affected by a country's dam project should be informed at an early stage of planning and thus in the course of the impact assessment. They should also have the opportunity to name aspects that should be considered in the assessment, be informed about its results and receive all technical details[591]. Additionally, involved external financial bodies should respect the principles of good faith and withdraw from a project in case of contravention (policy principle 7.5)[592].

The perception of reactions as well as the actual reactions towards the report vary according to one's position. According to scholars, such as Nüsser, the work of the WCD was perceived as ground-breaking and as setting the dam controversies at an end[593]. Adams treats the guidelines as the new international standards[594]. Thus, they mirror the position of large dam opponents since a coalition of 109 NGOs endorsed the report, demanding international financers to implement the recommendations[595]. While the construction of large dams was reduced in the 1990s as countries of the Global North already developed potential sites[596], only Sweden and Germany expressed support of the recommendations but no dam-building national government has implemented them as of 2009[597]. While the African Development Bank expressed support of the report[598], the position of the World Bank varies and will be discussed now.

8.3 (Re)positioning of Actors

8.3.1 Framing the World Bank's Position

Although having been the convener of the World Commission on Dams (WCD), the World Bank was, according to Dubash et al., the most restrained participant during the

[590] World Commission on Dams 2000: 253.
[591] Ibid: 306.
[592] Ibid: 251.
[593] Nüsser 2014: 11.
[594] Adams 2012: 9.
[595] Han 2018: 90.
[596] The decline of dam construction is linked to the criticism. Besides, especially in North America and Europe, potential sites have been already developed. At the end of the 20th century, the focus shifted to dam's maintenance, improvements and decommissioning (Heuwieser 2015: 74; World Commission on Dams 2000: 9ff.).
[597] Heuwieser 2015: 74; Fujikura and Nakayama 2009: 175.
[598] Adams 2012: 14.

process, applying the rationale of its client government's reservations[599]. The financial institution published its position towards the report in 2001, which was reaffirmed in its "Water Resources Sector Strategy" a few years later[600]. First of all, the World Bank regards dams as "important contributors to the development of many countries"[601], while acknowledging their adverse ecological and social consequences[602]. It states that the core values and the need to promote the strategic priorities of the WCD are adequate and reflect its own practices; however, it also emphasized that the 26 guidelines should not be interpreted as binding standards but as points of reference, picking up the concern of some of the consulted national governments[603]. Subsequently, a comparison of the guidelines and the by then existing World Bank's safeguard policies is presented, arguing to have mostly common grounds and a few differences[604]. For instance, in terms of the previously discussed guideline 26, the World Bank agrees on promoting good faith negotiations, and in applying a proactive approach instead of disengagement in order to encourage cooperation to eventually reach an agreement[605]. For long, the financing of a project requires already *prior notification and consent* of the riparian states, and in case of an objection, an assessment whether the respective state's interests would be appreciably harmed. This approach mirrors, according to the water law advisor Salman, still the contemporary policy. He presents the adjustment of this principle due to experiences as well as evolving principles of international water law since its first policy in 1956[606]. By referring to its experiences and the various requests for facilitating cooperative management of international waters, the World Bank presents itself as having the "capacity as a knowledge bank offering global experience"[607].

The second objection of the WCD's recommendations targets *generating public acceptance* after identifying a dam as the best option. While being in line with conducting a prior option assessment, the World Bank argues that the suggested procedure "is not practical and would virtually preclude the construction of any dam"[608]. The third major objection refers to the proposal of *prior informed consent of affected communities* as a

[599] Dubash et al. 2002: 57.
[600] The World Bank 2001; The World Bank 2004: 37ff.
[601] The World Bank 2001: 1.
[602] Ibidem.
[603] The World Bank 2004: 38.
[604] The World Bank 2001: 1-4.
[605] Ibid: 4.
[606] Salman 2009: xi; 94-103.
[607] The World Bank 2004: 70.
[608] Ibid: 38.

prerequisite: the World Bank acknowledges respective rights of communities, while emphasizing a state's right to determine the best interest of its society[609]. To sum up, the World Bank states that it does not intend to comply with the set of guidelines since it already has "the most sophisticated set of policies, operational procedures and guidelines amongst the international donor community"[610], according to the WCD report itself. The World Bank has established ten safeguard policies, all aiming at identifying potentially adverse environmental and specific social impacts at an early stage of a project and at minimizing or mitigating unavoidable impacts[611]. The central policy is the one on the Environmental Assessment (EA) since it applies to every investment lending[612]. The safeguard and operational policies on the "Safety of dams" (OP 4.37) requires the financing of new large dams to feature bid tendering with prequalified bidders, a review by an independent panel of experts from the stage of planning till operation as well as the implementation of detailed plans to assure quality[613]. Besides, an appraisal team has to evaluate all project information, including the estimated costs and the Environmental Assessment (EA)[614], while the lending government has to fulfill respective requirements in order to meet the World Bank's standards before the project's implementation[615].

Despite still occurring criticism of World Bank's opponents for, inter alia, tolerating lending governments to remove affected communities by force and not involving them in the planning process[616] as well as for the World Bank's reactions on the WCD report[617], it can be framed as an actor that mostly promotes the *new international standards* in the dam building sector. The discrepancies with the WCD's guidelines reflect on the one hand the bank's natural goal of actually continuing to fund large dams as well as to be perceived as an adequate partner for dam-building governments that acknowledges a certain extend of state's sovereignty. On the other hand, the WCD's guidelines present an ideal character of the "global vision of equitable and sustainable development", evident by the previously quoted reactions and the description of the forum as "a unique

[609] Ibid: 38.
[610] Ibidem.
[611] Whitford and Mathur 2006: 4.
[612] Ibid: 6.
[613] Bradlow et al. 2002: 98f.
[614] Ibid: 105.
[615] Ibidem.
[616] Goodland 2010: 384.
[617] International Rivers Network 2003.

experiment in global public policymaking"[618]. This provides the World Bank with the flexibility to (re)position itself in a self-serving way in the context of a concrete project.

8.3.2 Framing Chinese Actor's Position

As a dam-building nation, with a one-century history of constructing domestic dams and having the worldwide highest number of large dams[619], the Chinese Ministry of Water Resources was among the participants of the WCD process[620]. Several accounts show that the Chinese government has dismissed the findings as well as the recommendations of the final report[621]. The analysis of the WCD process by Fujikura and Nakayama might offer an explanation, which is in line with the statement of the World Bank. The scholars argue that there was confusion among the participants about the nature of the recommendations, being thus perceived as threating the sovereignty of states since the realization of a dam project occurs in accordance with national legislation. Therefore, there is a tendency to perceive them as strictly internal affairs, although being financed by foreign actors[622]. The following considerations aim at framing Chinese actors in general as promoting and being perceived as advocating state's sovereignty with regard to constructing large dams in especially African countries[623].

Stimulated by policy changes, such as the "Go Out Strategy" of 1999, Chinese actors - functioning as donors, financers, investors, contractors and builders in Africa - increasingly engaged in commercial activities, such as trade and investments, while official development aid was dominating before the turn of the century[624]. This incentive was taken up by the already well-established dam construction industry as state-owned companies, such as "Sinohydro", did not hesitate to engage in oversea projects, having already exhausted domestic demand[625]. "Sinohydro" has undisputed technical expertise, is supported by respective ministries and lending agencies - financially as well as politically[626]. It claims to be the new leader in the dam building industry globally, acting mostly as the builder of dams but also as a contractor and developer[627]. For instance, the

[618] Dubash et al. 2002: 43.
[619] Han 2018: 56; See also chapter 4.1 of in this thesis.
[620] World Commission on Dams 2000: xvii.
[621] Lefrancois n.d.: 2; Fujikura and Nakayama 2009: 173; Scudder 2005: 11.
[622] Fujikura and Nakayama 2009: 176, 181f.
[623] While aiming at framing Chinese actors in general, the author of this thesis acknowledges the diversity of Chinese actors and their differing stances regarding certain aspects and practices. The thesis focuses on main actors, which are relevant for this thesis. For more detailed information on other actors see: Han 2018.
[624] Wang 2007: 1, 5.
[625] Han 2018: 89; Urban et al. 2017: 2.
[626] Verhoeven 2012: 3
[627] Urban et al. 2015: 578.

Bui dam, which was already envisioned by Nkrumah's government, was eventually constructed decades after its first proposal, following a bid by "Sinohydro" and the "China Exim Bank" in 2005[628]. It has been argued that the applied social and environmental norms differed from international standards, such as of the World Bank[629]. The "China Exim Bank" is one of the key state-owned financial institutions involved in Chinese-African relations[630], having surpassed the portfolio of its Western counterpart, the World Bank[631]. It provided the Sudanese government in 2003 with a US$ 519 million loan for the Merowe multi-purpose project across the Nile, essential for securing its overall-financing[632]. Chinese companies were hence involved in construction, building inter-state as well as cross-border transmission lines[633], indicating already Merowe's relevance for the following case study. In 2006, the bank's president, Li Ruogu, stated in an interview with "International Rivers" executive director Bosshard that "China had first to grow out of poverty before it could start worrying about the environment, and [that China] would not stand in the way of governments of other developing nations which did the same"[634]. The bank had its first environmental guidelines published in 2004 and updated them in 2007[635]. In 2011, "Sinohydro" released a 'Policy Framework for Sustainable Development', having many similarities with the World Bank's standards, but being replaced by much more broad policies in subsequent years[636].

According to the researcher Cascão, Chinese companies[637] appear attractive to certain African political elites due to favorable financial contracts, faster procedures, and lack of environmental and international regulations, such as the prior notification of riparian states, which offers opportunities to realize unilateral projects[638]. This reflects general reasons for the favoring of Chinese financing and technical expertise in the infrastructure sector from the perspective of African national governments. Wang highlights the fact that traditional Western bilateral and multilateral donors tend to budget just a relatively small portion of their funding to infrastructure in general[639], while China provides

[628] The dam started to be operated in 2013 (Urban et al. 2015: 578).
[629] Han 2018: 91.
[630] Wang 2007: 13.
[631] Bosshard 2010: 45.
[632] Ibidem.
[633] Han 2018: 91.
[634] Bosshard 2010: 47.
[635] Hensengerth 2013: 290.
[636] Urban et al. 2015: 574.
[637] Cascão refers to no specific company but to those operating in the Nile Basin as of 2009 (2009: 260ff.).
[638] Ibidem; See also: Verhoeven 2012.
[639] Wang 2007: 20.

opportunities to realize even very costly dams[640]. Since Chinese technology tends to be less capital-intensive, coupled with lower material and labor costs than Western competitors, it bears advantages in terms of pricing, while private actors in Western countries consider investment in poor countries as a high-risk[641]. There is another competitive advantage: China's long-standing principle of non-interference and the application of a certain discourse that is effective in legitimizing undemocratic practices and human rights abuses "in the guise of state sovereignty"[642] in order to challenge Western hegemony and attract certain African leaders[643]. However, this position is increasingly questioned by other African actors, such as scholars, civil society organizations and the African Union[644]. Thus, it seems that Chinese actors have to open their own space of maneuvering in order to maintain the attraction of political elites, while responding to concerns of their opponents and the demands of the zeitgeist. In those national contexts, where the formation of opposition is restricted (e.g. due to no freedom of speech, no organizational freedom) and where a large dam should serve as prestige and political interests, Chinese actors' offer appears ideal: massive and costly projects can be realized and in a fast and less cumbersome way due to their stance on *state sovereignty*.

8.4 Interim Conclusion

The detailed discussion of the World Commission on Dams (WCD)'s nature and its recommendations was necessary to satisfy the complexity and multitude of requirements shaping an ideal vision of planning and managing large dam projects and thus to comprehend the changing perceptions. Essential principles, such as the assessing of the best option, conducting social and environmental assessments, prior consent and notification of affected riparian states, have been discussed. These reflect broader values, such as equity, cooperation, participation and sustainability. Thus, dam-building governments of the 21st century, which are mostly situated in the Global South as will be discussed in the next chapter, are confronted with a framework of project management that would complicate and could even prevent the realization of a large dam if followed up. The framework, which promises the "best option" for a specific locality, actually constitutes again a "one-fits-all"- approach from a global perspective: countries with abundant, yet untapped potential for constructing large dams (mostly countries of the

[640] Han 2018: 91.
[641] Wang 2007: 21.
[642] Konings 2007: 363.
[643] Ibid: 363f.; See also: Swain 2011: 699.
[644] Konings 2007: 364.

Global South), are treated like those countries, which have already exhausted their potential (mostly countries of the Global North), while they face more requirements.

The framing of the World Bank as an advocate for the *new international standards* and of Chinese actors for the *"old" vision of state's sovereignty* should be understood as a tendency, which shifts according to one's position on the one hand and according to the actions of the two players in a certain context on the other hand. Thus, the discussion of their positioning mirrors features of the contemporary world order that is shaped by shifting agendas and alliances. In the context of building dams, the stances of the World Bank and of Chinese actors show that a new but sector-specific ideological confrontation emerged and that a certain dichotomy can be observed. However, this dichotomy can be only clearly presented as such, when analyzing the World Bank and Chinese actors' activities in a specific host country. Here, it is essential to assess their activities in the dam building sector and to examine how the host country's political leaders perceive them, which of the two options they prefer and which strategy would indicate a "third way". Before discussing to what degree the Ethiopian context and the implementation process of the Grand Ethiopian Renaissance Dam (GERD) demonstrate an example for this sector-specific ideological confrontation, the 21st century-nexus will be defined.

9. Theoretical Considerations for the 21st century

The respective nexus and the aspirations surrounding large dams in the first decade(s) of the 21st century will be presented to provide the context for the last case study.

9.1 The Resource Scarcity-Sustainable Development-Ecological Modernization-Multipolarity-Nexus

In order to address the overlapping, complementing but also contradicting aspirations as well as actor constellations shaping the geo-political context of the 21st century, the *resource scarcity-sustainable development-ecological modernization-multipolarity-nexus* will be defined. The first aspect sums up the growing awareness of the limited availability of finite resources, such as oil and water, the subsequent need to look for alternative energy resources, exaggerated by a growing world population and the already felt consequences of man-made climate change: In the field of development cooperation a "Water, Food and Energy"-nexus is itself presented as a framework in order to highlight the interconnection of the three elements and thus advocate for integrated approaches to

respond to the challenges[645]. While water used to be perceived as a free commodity in the past decades, groundwater sources have been reduced and the water quality is worsening, lifting it - as a limited natural resource, an essential economic good but also as a human right - to the top of the global agenda on sustainable development[646]. Regarding the African continent, current tendencies suggest that the overall population of 1 billion will double by 2050, while climatologists expect a monotonic increase of temperature and volatility in precipitation, leading to increasing water stress, possibly resulting in massive migrations due to the overall reliance on subsistence farming[647].

The International Energy Agency called sub-Saharan Africa "the epicenter of the global challenge to overcome energy poverty"[648] as at least 620 Million people live without access to electricity as of 2014[649]. The link between access to electricity and poverty reduction and the respective importance for sustainable development and global prosperity has been established, for instance, by the UN initiative "Sustainable Energy for All" (2011) that promotes the universal access to modern energy services as well as the doubling of the share of renewable energies in the global energy mix by 2030, being supported by 80 governments[650]. Besides, the African Union launched the "African Renewable Energy Initiative" in 2015, aiming at allocating at least 10 GW of additional and new renewable energy generation capacity by 2020[651]. These concrete aspirations, covered under the umbrella of *sustainable development*, embodied also by the World Commission on Dams (WCD) report, are complemented but also contradicted by the *ecological modernization*[652]. The latter is enhanced by the "Green Economy", the new guiding agenda of the climate change regime, introduced at the Rio+20 Summit in 2012: The incentive was to overcome the multiple crises - the intertwined financial-economic, energy and food crises[653] - by replacing the previous emphasis on encouraging a lengthy transformation of the global economy via significant policy changes with promoting investment in "green" sectors, such as renewable energies and technology, aiming at resource efficiency and thus demanding for a further financialization of nature[654].

[645] Nasr and Neef 2016: 974; Basheer et al. 2018: 1310.
[646] International Institute for Environment and Development 2001: 3.
[647] Keith et al. 2017: 34.
[648] International Energy Agency 2014: 3.
[649] Ibidem.
[650] United Nations 2014: 2; Chen and Swain 2014: 11.
[651] Africa Renewable Energy Initiative 2018.
[652] See for the term: Heuwieser 2015: 70.
[653] See for more information on the multiple crises: Engels and Dietz 2014: 152.
[654] Heuwieser 2015: 70 f.

According to the financial analyst, Trevor Hambayi, the financial crises in 2008 also acted as a catalyst for many Sub Saharan African countries to enter the bond market in order to find alternative financing tools for infrastructure[655].

With regard to the Nile basin, the 370 million inhabitants of the eleven riparian countries of the river, which plays a crucial role in terms of economy, politics and cultural life, are expected to double by 2050, while urbanization reinforces the population pressure[656]. Combined with hydrological variability and the plans of the governments of upstream countries to enhance agricultural farming and industrialization after a long period of denied shares, the Nile basin constitutes one of the global hotspots regarding food, water and energy concerns[657]. On the one hand, new actors, such as foreign corporations and investors, have started to accelerate large-scale land acquisitions, making use of external water resources[658]. On the other hand, it calls for the necessity to manage the water resources in a cooperative and equitable manner to adapt and prevent conflicts[659], which mirrors the *sustainable development* paradigm. This attempt is materialized by the establishment of the Nile Basin Initiative (NBI) that embodies the idea of regional cooperation and multilateralism[660] and thus exemplifies Middell and Nauman's claim that the current world order is characterized by negotiating regional agreements[661]. As already discussed, the scholars have refuted the image of a "global governance", arguing there is no clear vision, which indicates the controversy on conceptualizing the current world order. According to the realist school of IR, the American state lost its hegemonic position since it is no longer able to shape international rules and regimes as it once could[662]. According to Komlosy, the controversial debate on the consequences of this phenomenon can be divided into two strands. Some scholars argue that emerging powers of the Global South, such as China or the other BRICS, will position themselves as new hegemons in the world economy[663]. The World Bank's president announced in 2009 the demise of the "Third World", observing an "evolving multipolar world economy"[664]. The economic scientist Wade also frames the current order as multipolar, as the growth of China's

[655] Hambayi is also a PhD research fellow at Boston University (Hambayi, *Quartz Africa*, 31.10.2017).
[656] Abdelhady et al. 2015: 73; Tawfik 2016: 68.
[657] Nasr and Neef 2016: 969; Jeuland et al. 2017: 123; Mulat and Moges 2014: 584; Habteyes et al. 2015: 1235.
[658] Yildiz et al. 2016: 5; Upadhyay and Gaudel 2017: 17.
[659] Ibidem.
[660] Abdelhady et al. 2015: 77.
[661] See chapter 2.1.
[662] Kragelund and Carmody 2015: 3.
[663] Komlosy refers to Arrighi (2007), Frank (1998) (2016: 464); See also: Kragelund and Carmody 2015.
[664] Zoellick 2010 cited in Wade 2011: 348.

relative economic weight and that of others challenges the supremacy of the G7. However, he observes that China appears divided between presenting itself as a future guide and as too poor for taking on global responsibilities[665].

This observation already mirrors the second spectrum of scholars, who are skeptical of China's and other emerging powers' capabilities[666]. Li points at the interdependency of actors: the BRICS have now voting power in the World Bank and the International Monetary Fund; however, their creation of a US$ 100 billion pool of emergency currency reserves during the G20 summit in 2013, was interpreted as an attempt to offer an alternative financial order[667]. Thus, Li frames the current transitional order as an "interdependent hegemony", whereby established powers and emerging powers, embedded in global capitalism, are likewise engaged "in a constant process of shaping and reshaping the international order in the nexus of national interest, regional orientation, common political agenda, political alliance, and potential conflicts"[668]. This definition mirrors this thesis' conclusion regarding the positioning and spaces of maneuver of the World Bank and of Chinese actors in the dam building sector. However, "interdependent hegemony" should be understood as characterizing and not naming the current world order, which is called "multipolar" in the context of this thesis.

9.2 Large Dams - Symbols for (Sustainable) Development

Since the beginning of the 21st century, hundreds of new large dams have been built, especially in the Global South, indicating a revival and a new era of - costly and also controversial - large-dam construction[669]. As hydropower dams are situated at the heart of the debate on how current and future water needs can be fulfilled[670] in the light of population growth, while enhancing economic growth, considering obstacles of climate change, the need to address the electricity gap and promoting an energy transition, governments of the Global South identify large dams as an adequate option[671]. According to Everard, most modern dams serve multiple purposes and are praised by pointing out the many benefits due to generating power, irrigation, flood control as well as providing recreational opportunities and "greening the deserts", which is in line with the ideology

[665] Wade 2011: 347f.
[666] Komlosy refers to Krasilshchikov (2014) and Nye (2015) (2016: 464).
[667] Li 2014: 344.
[668] Ibid: 360.
[669] Verhoeven 2012: 2; Abbink 2012: 127; Menga 2016: 705, 712.
[670] International Institute for Environment and Development 2001: 3.
[671] Zarfl et al. 2015: 161; Chen and Swain 2014: 11.

of "improving upon nature" via technology[672]. This was already promoted by the Hoover dam and the engineers of the Soviet Hydroproject. Often large dams are promoted by highlighting their value for a country's prosperous future, progress and development and for the implementation of national goals[673]. This is similar to the earlier emphasis on a project's overall benefits for a whole country in the case of the Aswan High Dam and the Akosombo Dam in the context of nation-building and decolonization. The anthropologist-historian Abbink argues that Scott's "high-modernism" is still relevant in the contemporary period as "developing countries have taken over an unreconstructed modernism in their infrastructural and technocratic approach to socio-economic development"[674]. This means that large infrastructure projects are promoted as the ideal solution, which does not allow any societal counter-voice[675].

Thus generally, the new era of large dams is shaped by similar developmental aspirations from the perspective of governments of the Global South; however, this is complemented by a stronger emphasis on the dam's role for securing scarce resources[676] and to address the basic needs of growing societies[677]. However, the "renaissance of large dams" is also linked to the re-framing of the potential of hydropower dams by the international community. Dams now not only have the potential for "development" but for "sustainable development". This new path was already set by the World Commission on Dams (WCD) but even further promoted by, for instance, the "World Summit on Sustainable Development" in 2002[678] and the "United Nations Symposium on Hydropower and Sustainable Development" in October 2004. In the latter's declaration, the essential role of hydropower for sustainable development is highlighted on the one hand by pointing at hydropower dam's past achievements in terms of "poverty reduction and economic growth through regional development and expansion of industry"[679]. On the other hand, they highlight that only 5% of Africa's hydropower potential has been yet tapped. Thus, national governments are urged to create "favourable environments"[680] to attract investments from, for instance, the World Bank, which has stated to re-engage in

[672] Everard 2009: 32.
[673] Menga 2017: 104.
[674] Abbink 2012: 125.
[675] Ibidem.
[676] Verhoeven 2012: 2.
[677] Yildiz et al. 2016: 5.
[678] Chen and Swain 2014: 11.
[679] United Nations 2004.
[680] Ibidem.

financing of sustainable projects[681]. There is an emphasis on considering multipurpose dams, conducting an options assessment and considering environmental, social as well as financial and economic factors; however, it remains much more vague compared to the World Commission on Dams (WCD)'s guidelines, leaving the implementation to the government's responsibility[682]. This tendency of promoting hydropower dams as promoters of sustainability with the emphasis on its outcome rather than promoting sustainable project management itself for the actual planning of a project, is further exaggerated by the preparations of the already mentioned Rio+20 Summit. Here, large hydropower dams were praised as the best option, while their extraordinary emissions due to the large reservoirs of dam projects, once highly criticized, appear now erased by portraying dams as a climate-friendly technology that has low carbon emissions during power production ('blue becomes green')[683].

While traditional actors, such as the World Bank, started to reactivate their funding, especially Chinese actors, constituting worldwide the largest builders and investors, have emerged as dominating dam construction in Africa, having finalized 48 large hydropower or multipurpose dams as of January 2012[684]. Likewise, investment in the hydropower sector is linked to China's demand for securing energy resources and raw materials, engaging in the "emerging political economy of food and water"[685]. However, this should not lead to the impression that African states are turning into economic playgrounds. These developments, namely the growing demand for resources at the international level and China's appearance in previously Western dominated sectors, also provide African actors with a certain space of maneuver[686]. The political scientist Hensengerth observed that the presence of Chinese actors can be used as a "bargaining chip when negotiating loans and grants with Western countries"[687]. Thus, the following case study will analyze in how far Ethiopian political leaders have managed to generate a Third Space of Maneuver in a specific case: in realizing the Grand Ethiopian Renaissance Dam (GERD).

[681] Ibidem.
[682] Ibidem.
[683] Nüsser 2014: 11; Heuwieser 2015: 70.
[684] Hensengerth 2012: 289; Urban et al. 2017: 1f.
[685] Verhoeven 2012: 2.
[686] Mohan and Lampert 2012: 95.
[687] Hensengerth 2012: 288.

10. The Grand Ethiopian Renaissance Dam Case

This chapter will start with an extensive examination of the origin of the Grand Ethiopian Renaissance Dam (GERD), which dates back to the Cold War era.

10.1 Origin and Role of the Grand Ethiopian Renaissance Dam

Currently under construction since 2011[688], the Grand Ethiopian Renaissance Dam (GERD) is situated in the Beneshangul Gumuz region around 40 km away from the Sudanese border and 500 km away from Ethiopia's capital Addis Ababa[689]. By making use of the country's untapped, yet abundant, hydropower potential, the GERD will be Ethiopia's first hydropower dam on the Blue Nile, which originates in its highlands at Lake Tana and constitutes the largest tributary of the Nile, accounting for 65% of its waters[690]. The project includes a gravity dam, being 1780m long and 145m high, and a rock-fill saddle dam with a crest length of 4800m and a height of 45m as well as two surface powerhouses and a gated spillway[691]. The created water reservoir will have a storage capacity of more than 60 bcm, corresponding to around 1,5 years of the Blue Nile's main discharge[692]. Besides the Aswan High Dam, it will be the second over-year storage dam on the Nile, challenging the existing water allocations as it will control 60-80% of the water resources that Sudan and Egypt receive[693]. The GERD's anticipated energy generation amounts to 6000 MW, it will thus rank as Africa's largest hydro-power station[694]. This reflects the government's aim of becoming the biggest power exporter[695].

The project was launched by late prime minister Meles Zenawi (1995-2012) of the Ethiopian People's Revolutionary Democratic Front (EPRDF), which is incumbent since 1991[696]. Zenawi's vision of transforming Ethiopia into a "hydroelectric superpower"[697] and the developmental aspirations linked to the project are still promoted by the party after his death in 2012[698]. Not only he but also Ethiopia's last emperor Hailie Selassie (1930-1974) and the socialist authoritarian regime of Mengistu Meriam (1977-1991) were

[688] The time of completion is unclear: Menga states it should be completed in 2018 (2017: 104); Yildiz et al. describe the dam as almost finished as of 2016 and state that construction started already in December 2010 (2016: 2). Liersch et al. state that it will be finished in the coming years (2017: 2).
[689] Belay 2014: 1; Yildiz et al. 2016: 1; Batisha 2015: 2; Swain 2014: 12.
[690] Upadhyay and Gaudel 2017: 17; Belay 2014: 1; Nasr and Neef 2016: 969; Mulat and Moges 2014: 584.
[691] Upadhyay and Gaudel 2017: 19.
[692] Liersch et al. 2017: 1; Batisha 2015: 35.
[693] Jeuland et al. 2017: 124; Motlagh et al. 2017: 75.
[694] Teklemariam et al. 2017: 1852; Abdelhady et al. 2015: 73; Mulat and Moges 2014: 583.
[695] Shay 2018: 1.
[696] Orlowska 2013: 298; Whittington et al. 2014: 597.
[697] Záhořík 2014: 37.
[698] Ibid: 38.

all strong advocates of large hydropower and irrigated agricultural projects, which have been linked to the prolonged paradigm of "modernizing" river basins[699].

As President Roosevelt's invitation to the US fell through due to his death in 1945, Haile Selassie eventually came for a visit in 1954 under Eisenhower's administration, seeing the Grand Coulee dam, built by the US Bureau of Reclamation (USBR), and "circling of the Hoover dam"[700]. According to the scholar Carr, this visit had a significant impact on Haile Selassie's personal commitment towards large-scale river basin development[701]. As the Awash river basin constituted an ideal site, from the perspective of Haile Selassie as well as of US agencies and the World Bank, the hydropower generating Koka dam was built between 1957 and 1960[702]. This was financed by war reparations from Italy and constructed by today's "Salini Impregilo"[703]. It was the same actor who would start to construct the Akosombo Dam just a year later and who currently builds the GERD[704]. With the function of managing the river basin development, the Awash Valley Authority (AVA) was founded in 1962 as an autonomous public authority[705]. The Tennessee Valley Authority (TVA) served as its role model and the Awash Valley Authority (AVA) itself as a pioneer for subsequent authorities in Ethiopia[706]. During the Soviet-backed Mengistu regime the institution was replaced with the Ethiopian Valleys Development Studies Authority (EVDSA) in 1987 with the task of identifying potential project sites at all river basins, which was later made accountable to the "Ministry of Natural Resources and Environmental Protection" under the present regime[707]. The employed Ethiopian hydrologists of the EVDSA were trained with references to an extensive report of the US Bureau of Reclamation (USBR) of 1964[708] which served as a "baseline for all subsequent studies"[709]. This chronology of the Awash Valley Authority (AVA)'s evolution makes it difficult to determine its influence on today's river basin development in Ethiopia. Though the mentioned USBR's report of 1964 points at an important entanglement: Some scholars mention in passing that the report - the result of the "Blue Nile project" - was a

[699] Carr 2017: 23; Waterbury 2002: 126.
[700] Carr 2017: 26.
[701] Ibidem.
[702] Sneddon 2015: 82; Carr 2017: 26.
[703] Ibidem; Salini Impregilo 2018b.
[704] The Italians already built the Aba Samuel dam during the Italian occupation,1936-1941 (Carr 2017: 24).
[705] Anteneh and Yemanu 1970: 19ff.
[706] Waterbury 2002: 126.
[707] Carr 2017: 29; Hailu et al. 2018: 116.
[708] Waterbury 2002: 116.
[709] Ibid: 118.

reaction of Eisenhower's administration towards the Soviet's funding of the Aswan High Dam[710], which needs to be examined.

As part of the US foreign technical program, the "Blue Nile project" included initially only field reconnaissance and feasibility studies in cooperation with Ethiopian staff[711]. The first part was conducted in the early 1950s but the studies intensified in 1959 and resulted in a US$ 4,5 million report with seventeen volumes in 1964, including an incredible array of potential projects, such as hydropower dams, irrigational and multipurpose projects[712]. It was based on the vision to fully control the Nile[713]. The project's intensification and its shift in focus were indeed a political reaction of the Eisenhower's administration towards Nasser's engagement with the Soviets. The account of the geographer Sneddon shows that the concrete studies for development of downstream Nile waters were to act as a tactical threat[714]. Contributing to this was the fact that Haile Selassie was already offended by the initial US' loan offer for the Aswan High Dam in 1956, putting successfully pressure to increase US military, economic and technical assistance (e.g. the work of the USBR) by threatening of asking for Soviet support[715]. Later on, Selassie was irritated by being excluded from the regional negotiations on the Nile waters allocation, and again requiring signs of US goodwill[716]: The costly and lengthy report with its proposal of an Ethiopian TVA-like basin development project. However, this was not in Haile Selassie's primary interest since he envisioned an actual dam as a physical demonstration of water control[717]. When he perceived the US as reluctant to fund one, he stated in an interview with an American journalist in 1964: "[N]ot only Ethiopia but all Africa has watched the Russians complete the first phase of a far greater dam in about the time it took the United States to make a survey"[718]. He was referring to the Finchaa dam, which was proposed just a few months earlier and eventually built between 1969 and 1974 along the Finchaa river, a tributary of the Blue Nile[719]. The dam was realized with World Bank support due to Selassie's comments and the geo-political interest of the US in Ethiopia as a moderately pro-

[710] Cascão and Nicol 2016: 559; Salman 2016: 515.
[711] Sneddon 2015: 78.
[712] Woldetsadik 2015: 387.
[713] Waterbury 2002: 116; Sneddon 2015: 87, 90.
[714] Ibid: 89f.
[715] Patman 1990: 43; Sneddon 2015: 91, 96f.
[716] Sneddon 2015: 89.
[717] Ibid: 90.
[718] Selassie 1964 cited in Sneddon 2015: 98.
[719] Sneddon 2015: 98f.

Western country with considerable influence in the region[720]. The other suggested projects in the report were never implemented due to financial reasons, other infrastructural priorities of Selassie, and the long period of political instability until the 1990s[721]. However, the Grand Ethiopian Renaissance Dam (GERD) is now built at the same site as the USBR's suggested "Border dam" after being re-surveyed in 2009/2010[722]. The original proposal was modified as the GERD's storage capacity almost equals the overall capacity of four suggested big dams, while the power capacity even succeeds their overall capacity[723]. However, the dam's origins are the result of geo-politics and the created Third Space of Maneuver by Selassie who knew how to instrumentalize his tangible power resources (geographical location) and intangibles (threat of asking for Soviet support). At the same time, he benefitted from the entanglement with the Aswan High Dam.

The role of the GERD for Ethiopia was explained by late prime minister Zenawi as being central for "eradicating poverty" and "for the realization of objectives for [Ethiopia's] rapid development"[724]. The subsequent prime minister Hailmaraim Desalegn (2012-2018) portrayed the project as essential for maximizing water and energy security - likewise for upstream countries[725]- and thus for industrialization[726]. 60% of the Ethiopian population lack access to electricity, while the lack of water and food security is exaggerated by climate change[727]. This shows that the project is embedded in the 21st century-nexus. The government strives for self-sufficiency in hydropower generation and for finding means to regulate water flows in times of droughts and floods[728]. Similar to the other two case studies, the dam project is framed as the centerpiece of the "Growth and Transformation Plan" (GTP) and is part of the "Millennium Project"[729]. It is thus embedded in the national development agenda, which will be discussed next. Besides, the project has a strong political dimension. On the national level, the project acts as a symbol for Ethiopian nationalism or "renaissance"[730], of leaving "the dark ages of

[720] Ibidem; The World Bank Group 2018b.
[721] Woldetsadik 2015: 388f.; Waterbury 2002: 69; Tawfik 2016a: 1036.
[722] Upadhyay and Gaudel 2017: 19.
[723] Tawfik 2016a: 1037; Woldetsadik 2015: 387; Kahsay et al. 2015: 15.
[724] Zenawi 2013.
[725] Belay 2014: 5.
[726] Transportation Monitor Worldwide 10.03.2017.
[727] Yildiz et al. 2016: 3; Nasr and Neef 2016: 969.
[728] Motlagh et al. 2017: 73; Yildiz et al. 2016: 2.
[729] Abdelhady et al. 2015: 74; Kahsay et al. 2015: 15.
[730] Abdelhady et al. 2015: 73.

underdevelopment"[731] behind and thus for national pride[732]. On the regional level it is a response to the long period of denied accesses to Nile waters by Egypt and Sudan[733].

10.2 Domestic and Foreign Policy

In this chapter relevant aspects of Ethiopian domestic and foreign policy will be discussed with an emphasis on the pre-2011 period. This will provide context for how the dam came to be constructed.

10.2.1 The Domestic Policy Dimension

Ethiopia experienced some of the fastest economic growth globally, with around 10% in terms of real growth between 2004 and 2011, while making notable progress in achieving several Millennium Development Goals[734]. However, this process has been paralleled with an increase in extreme poverty, stagnating salaries, an expected raise of youth unemployment and a lasting dependence on foreign food aid[735]. Thus, eradicating poverty, accelerating sustained economic growth and achieving middle-income status by 2023 are the central aims of the government's "Growth and Transformation Plan" (2010-2015)[736]. According to Zenawi, the dam project plays a "major and decisive role in realizing"[737] the plan. Renewable energy sources, in particular hydropower, are seen as critical for economic growth[738]. Thus, the government intends to quadruple the currently generated 2000 MW to sell electricity at affordable prices and to realize the "Universal Electrification Access Program" by connecting rural areas to the grid[739].

The integrated, state-driven and ambitious development plan[740] reflects the ruling party's developmental state-model[741]. This model suggests a non-liberal and state-led approach with large public investments[742], which is similar to the previous cases. Based on the party's revolutionary democratic concept of development, it appeals to a country with a not (yet) well-developed market where liberalism would fail to generate sustained development. This would thus require the state to take over the leading role in the transformation towards a capitalist economy by activating available resources, such as

[731] Gebreluel 2014: 31.
[732] Chen and Swain 2014: 16.
[733] Transportation Monitor Worldwide 10.03.2017; Menga 2017: 104.
[734] Chen and Swain 2014: 11f.; The World Bank 2012: i.
[735] Záhořík 2014: 28.
[736] Ministry of Finance and Economic Development 2010: 1.
[737] Zenawi 2013.
[738] Adams 2012: 4; Chen and Swain 2014:12.
[739] Ministry of Finance and Economic Development 2010: 72.
[740] Adams 2012: 4; Feyissa 2011: 791.
[741] Abbink 2012: 128.
[742] The World Bank 2012: i; See Zenawi's vision, being mentored by J. Stieglitz, in: Zenawi 2011.

land and labor in the Ethiopian case, until the private sector is able to take over[743]. This would transform the mostly agrarian economy to an urbanized, diversified and industrialized one with sufficient employment[744]. According to the historian Abbink, the outlined top-down and fast-forward development path of the state elite does not allow any counter-voice and is caught in the modernization ideology as an approach for "state building"[745]. Being criticized for turning into an authoritarian regime since the controversial 2005 elections, the ruling party tries to emphasize the democratic nature of its developmental state as an "essential element of the vision of the African renaissance"[746]. This concept was made popular as a neo Pan-Africanist initiative by former South African President Thabo Mbeki, promoting the continent's revival[747]. In the Ethiopian context, the ruling party intends to replace their approach of emphasizing ethnic federalism, which led to "politics of difference" over the last decades. Due to respective policies some of the major ethno-linguistic groups received their own regional state, while smaller groups were sewn together in one, leading to "difference" and the "ethnicization" of local conflicts[748]. The new ideology promotes "unity in diversity", equality and a "national consensus" on development[749]. The Millennium celebrations in 2007[750] were used to create new idioms of common identity and nationhood for the 80 ethnolinguistic groups[751]. This is reflected by the name of the Grand Ethiopian *Renaissance* Dam, or formerly the *Millennium* Dam, which replaced historical icons and is framed as solving Ethiopia's energy problems forever[752]. The "Millennium project" in 2007 also aimed at rectifying Ethiopia's image of a country depending on foreign aid[753]. This relates to the foreign policy dimension.

[743] Feyissa 2011: 796f.
[744] Cascão and Nicol 2016: 567.
[745] Abbink 2012: 126, 128.
[746] Feyissa 2011: 803.
[747] The concept was introduced by the late Senegalese historian Cheikh Anta Diop (Orlowska 2013: 298).
[748] It builds upon the concept of national self-determination as well as the constitutional rights of the "nations, nationalities and peoples of Ethiopia", assuming that each of them can be identified according to a common culture, language and a contiguous territory without considering the consequences of intermarriages for a person's identity. The creation of ethno-linguistic units led to the institutionalization of ethnic difference (Orlowska 2013: 299).
[749] Abdelhady et al. 2015: 74; Orlowska 2013: 298ff.
[750] As the Ethiopian calendar is based on the Ethiopian Orthodox Church, this millennium started on the 11th of September 2007. It was celebrated with several activities throughout the year (Orlowska 2013: 296).
[751] Abdelhady et al. 2015: 74; Orlowska 2013: 296.
[752] Ibid: 313; Menga 2017: 105.
[753] Orlowska 2013: 298.

10.2.2 The Foreign Policy Dimension

The domestic policy agenda is clearly linked to the strategy of foreign policy-making, evident by a report of then foreign minister, Tedros Adhanom, in 2015. The report stated that all diplomatic activities should aim at realizing rapid economic development, thus encouraging trade, investment and tourism in past years, while continuing to promote infrastructural development and the export of electricity to neighboring countries in the future. It also aimed to strengthen Ethiopia's economic role in the Horn of Africa[754]. The ruling party's foreign policy making is characterized by pragmatism, just as the policy of previous regimes[755]. Major foreign partners include Saudi Arabia, the United Arab Emirates, Russia, Italy, China, and Turkey[756]. Besides hydropower infrastructure, a second major pillar for the "Growth and Transformation Plan" (GTP) is the leasing of large-scale agrarian land, including to foreign investors[757].

As the headquarters of the African Union are situated in Addis Ababa[758], the ruling party emerged as an important actor in regional and continental affairs[759]. In the last two decades, Ethiopia received US$ 26 billion, representing one of the world's largest sums of development aid from international donors, such as USAID, the World Bank, the International Monetary Fund and the European Union[760]. In the years before the Grand Ethiopian Renaissance Dam (GERD) was launched, it received annually US$ 3 billion, constituting more than a third of Ethiopia's annual budget[761]. The most significant financer is the US, as Ethiopia is an important American ally for regional conflict resettlement and anti-terrorism efforts[762]. Donor countries have also shown sensitivity to the fact that Ethiopia has been the only African country that was not colonized, while the ruling party is proficient in applying the "sovereignty card" as a negotiation strategy[763]. Since the 1990s, foreign relations with China have been grown continuously, with Chinese companies building the majority of the infrastructure, including dams. The loan cover of China Exim Bank for Ethiopia is the largest in Africa and the overall sum of US$ 345 million of foreign direct investment in 2012 was only surpassed by Saudi Arabia and

[754] Adhanom and Dewar 2015: 2.
[755] Záhořík 2014: 36.
[756] Ibid: 36f.
[757] Abbink 2012: 127f.; Engels and Dietz 2014: 156f.
[758] Milkias 2011: 100.
[759] Gebreluel 2014: 29.
[760] Feyissa 2011: 788.
[761] Ibidem.
[762] Gebreluel 2014: 30; Feyissa 2011: 793f.
[763] Ibid: 800.

India[764]. On the political level, both governments share a similar stance in non-interference in domestic affairs[765]. The scholar Deych states that the prime ministers Zenawi and Desalegn expressed the importance of Chinese actors and the preference of their loans due to their unconditionality. However, the Ethiopian government is aware of China's self-interests, making relations to the West not irrelevant[766]. This mirrors Tesfaye's claim that the state elite pursues an independent foreign policy in a multipolar world for their own benefits[767].

10.3 The Legal-Technical Negotiations of the Grand Ethiopian Renaissance Dam

The outcome of negotiations on cooperation with regional actors has a direct impact on the government's financing options. Thus, key events in this area will be presented.

The already discussed *1959 Nile Waters Agreement* has been highly influential despite its asymmetrical character and respective controversies[768]. While Sudan and Egypt regard it as a valid international agreement and refer to their "historical rights" and "prior use" of Nile waters, upstream countries reject it due to its bilateral character and demand for the right to certain water shares for national developmental needs[769]. Over the past decades, several attempts have been made to initiate cooperation, though these have been unsuccessful[770]. Eventually, the established "Council of Ministers of Water Affairs of the Nile Basin Countries" (Nile-COM) invited the World Bank[771] to facilitate cooperation among the countries in 1997, which resulted - after mediation efforts by the World Bank - in the launch of the transitional intergovernmental Nile Basin Initiative (NBI) in 1999[772]. For the first time, the ten riparian states[773] gathered at ministerial level, indicating readiness for dealing with a wide range of issues, aiming at enhancing sustainable development and benefit-sharing of the Nile waters via regional collaboration[774]. The financial dependence on World Bank support pressured Egypt to - at least superficially -

[764] Deych 2016: 189ff.
[765] Ibid: 194.
[766] Ibid: 196.
[767] Tesfaye 2017: 2.
[768] Zeitoun et al. 2011: 166.
[769] Milas 2013: 3.
[770] Some of the attempts were Hydromet (1967), Undungu (1983) and TeccoNile (1992). The lack of success is linked, inter alia, to Egypt's attempt to use these platforms for securing its status-quo, which increased distrust. Besides, not all riparian countries were included and the actual challenges were not targeted (Mekonnen 2017: 263f.; Cascaõ 2009: 246).
[771] the United Nations Development Program (UNDP) and the Canadian International Development Agency (CIDA) were as well invited (The Stockholm International Water Institute 2013: 12).
[772] Ibid; Salman 2013: 20.
[773] Eritrea decided to participate in the NBI only as an observer (Kimenyi and Mbaku 2015: 74).
[774] Salman 2013: 20; Cascaõ 2009: 246; Cascaõ and Nicol 2016: 552; Gebreluel 2014: 27.

revise its regional foreign policy and express willingness for cooperation[775]. Thus, the traditional donor for water projects, who used to request for regional agreements as a loan condition on the international level of financial negotiations, operates now also directly on the regional level as a facilitator and mediator. At the same time, the actor maintains its role as a financer. Thus, levels of influence conflate.

Timewise, the mediation efforts parallel the process of the World Commission on Dams (WCD) on the global level, when the World Bank aimed at rescuing its reputation. Moreover, the Nile Basin Initiative (NBI)'s external perception and its mission are similar to the global forum's aspirations, both being embedded in the zeitgeist of the 21st century-nexus: The Nile Basin Initiative was perceived as a milestone, raising hopes and optimism for a finally equitable utilization of Nile waters[776]. Its vision is to achieve "sustainable socio-economic development through the equitable utilization of, and benefits from, the common Nile Basin water resources"[777]. The process of cooperation includes two parallel tracks: a technical one with the task to facilitate joint projects and a legal/political one with the task to develop a comprehensive agreement as the basis for creating a permanent river basin organization[778].

The agreement, the *Cooperative Framework Agreement (CFA)*, sought to restructure existing water allocations and thus to replace former (colonial) agreements[779]. The process started in 1999 and took more than a decade. It was complicated due to the insistence of Egypt and Sudan on their veto power against any upstream water project under the 1902 and 1929 agreement and the established rights under the 1959 agreement[780]. The Ethiopian delegates used the historical injustice of not being notified by Sudan and Egypt prior to their water projects and the concern that a "notification"-clause, as suggested by Sudan and Egypt, could be again interpreted as their veto power to successfully increase their bargaining power. This was evident by the fact that the draft of the new agreement only included the provision of exchanging information and data[781]. In 2007, all riparian countries agreed on the suggested 45 articles of the draft[782]. However, the newly introduced concept of "water security" (art. 2/14), which provided each state

[775] Swain 2011: 693.
[776] Mekonnen 2017: 265.
[777] Nile Basin Initiative 2018.
[778] Tawfik 2016: 71f.
[779] Gebreluel 2014: 27; Motlagh et al. 2017: 75.
[780] Salman 2014.
[781] Salman 2013: 22; Salman 2014.
[782] Cascão and Nicol 2016: 556.

with the right to "reliable access to and use of the Nile river system"[783], was challenged by Egypt and Sudan[784]. They demanded to replace a subclause of art. 14b, which required "not to significantly affect the water security of any other Nile Basin State"[785] by "not to adversely affect the water security and current uses and rights of any other Nile Basin State"[786]. This was in contrast to the interests of upstream countries, however, the subsequent deadlock in negotiations was eventually "solved" during a ministerial meeting in 2009[787]. All upstream riparian countries decided to move forward with the new agreement without Egypt and Sudan[788]. It was opened for signing in Entebbe on 14th May 2010[789], annexing the article 14b to be resolved later on[790]. While, Ethiopia, Tanzania, Uganda and Rwanda signed the *Entebbe Agreement* on the respective date, Kenya joined a few days later and Burundi joined in 2011[791]. According to interviews, Ethiopian representatives were active in convincing other upstream countries to sign[792]. Ethiopia's prime minister Zenawi stated after signing: "some people in Egypt have old-fashioned ideas based on the assumption that the Nile water belongs to Egypt [but] the circumstances have changed"[793]. As a response, Sudan and Egypt stopped participating in all on-going activities of the Nile Basin Initiative (NBI), indicating that their actual interest has been to prevent any upstream country from constructing hydro-projects unilaterally[794]. The "Shared Vision lost momentum"[795] for the coming years (Sudan rejoined in 2012) and has indeed hindered accessing external funding for NBI projects[796].

This points at the interconnection with the second track of the initiative - the realizing of joint projects - and the risks of its almost complete dependence on external funding[797]. However, the prospect of attracting foreign investment was a shared incentive of all riparian countries to initially engage in the Nile Basin Initiative[798]. In March 2001 a trust fund was established, which was managed by the World Bank due to the institution's

[783] Salman 2013: 21.
[784] Ibidem; Woldetsadik 2015: 402.
[785] Mekonnen 2010: 428.
[786] Ibidem.
[787] Ibid: 428f.
[788] Cascão and Nicol 2016: 556.
[789] It was opened for signing for one year, see for the status of ratification: Nile Basin Initiative 2018a.
[790] Cascão and Nicol 2016: 556.
[791] Salman 2014.
[792] Cascão and Nicol 2016: 562.
[793] Zenawi 2010 cited in Yildiz et. al 2016: 1.
[794] Mekonnen 2017: 265; Cascão and Nicol 2016: 556.
[795] Nile Basin Initiative 2014: 46.
[796] Ibidem; Cascão and Nicol 2016: 556.
[797] Swain 2011: 696.
[798] Ibid: 695.

capabilities. The members hoped that this decision would attract other development partners to engage in this costly as well as risky initiative[799]. Indeed, support from ten development partners was attracted and an overall sum of US$ 191.74 million was raised as of 2012[800]. By differentiating between the two Nile basins, joint projects for the countries along the Eastern Nile, namely Ethiopia, Sudan and Egypt, were identified[801]. One of the eight projects, the large-sale, long-term *Joint Multipurpose Program (JMP)*, suggested the Ethiopian territory as the best site for first projects[802]. These included the "Mandaya dam" and the "Border dam", which were requested by the Ethiopian government to realize the proposal of the US Burau of Reclamation (USBR) of 1964 in a cooperative way and thus with external funding[803]. An international consultancy firm concluded feasibility studies in 2008, whose findings were rejected by Egypt and Sudan; thus, Ethiopian officials gave up bargaining in 2012[804]. However, Ethiopian officials expressed already in 2009 that the realization of this joint project was highly doubtful, demanding for the realization of one of the national projects for energy security[805]. Thus, the announcement to unilaterally construct the Grand Ethiopian Renaissance Dam (GERD) in April 2011 is linked to Egypt's refusal of the new agreement (CFA) as well as of the joint project (JMP) as the lack of cooperation would hinder external funding[806].

This clearly illustrates the pragmatism of Ethiopia's ruling party and its maneuvering in the new geo-political environment, which is shaped by the aspiration for cooperation. This aspiration is in conflict with the government's ultimate aim of realizing national interests, which mirror the domestic policy agenda. Having in mind why access to external financial resources via the regional initiative was not possible, the actual financing of the Grand Ethiopian Renaissance Dam (GERD) will be discussed next. Due to the actuality of the case study, this analysis is quite detailed.

[799] The Stockholm International Water Institute 2013: 15.
[800] The International Consortium for Cooperation on the Nile (ICCON) was set up in June 2001 by the World Bank to attract development partners. The ten development partners include Canada (CIDA), Denmark (DANIDA), the European Commission (EC), Finland, France, Netherlands, Norway (NORAD), Sweden (Sida), United Kingdom (DFID) and the World Bank, while, inter alia, Germany (represented by the GIZ), the African Development Bank (AfDB) and Japan (represented by JICA) support the NBI bilaterally (International Stockholm Water Institute 2013: 2, 15; Swain 2011: 693).
[801] Nile Basin Initiative 2018.
[802] Nicol and Cascão 2016: 554.
[803] Ibid; Tawfik 2016: 74; Tawfik 2016a: 1036.
[804] Cascão and Nicol 2016: 555.
[805] Ibid: 560.
[806] Ibid: 569; Tawfik 2016: 74; See also: Mekonnen 2017: 266.

10.4 Financing and Re-Negotiating the Grand Ethiopian Renaissance Dam

Several accounts state that the re-survey of the project, and the project itself, were kept secret by the Ethiopian government, calling it Project X[807]. The estimated overall cost of US$ 5 billion constituted around 60% of the national budget in 2011/12[808]. The first public notification of the project took place on the 13th of March 2011[809]. Thus, it occurred during the "Arab spring", raising the assumption that the government used Egypt's inability to react to such a foreign policy matter[810]. On the 2nd of April 2011, Zenawi launched the project publicly:

After highlighting the importance of the GERD for domestic needs, such as power supply, he described the benefits for neighboring states, in particular Sudan and Egypt, as the dam would help reduce flooding, evaporation and sediment problems of their dams. Power could be import and existing disagreements could be resolved. Thus, Zenawi stated that "one might expect these countries to be prepared to share the cost in proportion to the gains"[811]. Instead, he claimed that attempts have been made to "undercut Ethiopia's efforts to secure funding"[812], arguing that the nation was "forced to rely on [its] own savings alone to cover the expense"[813]. After highlighting the heavy burden on the national budget and the subsequent options of either dismissing the project or realizing it by any means, he then turned to the Ethiopian people by declaring: "No matter how poor we are, in the Ethiopian traditions of resolve, the Ethiopian people will pay any sacrifice. I have no doubt they will, with one voice, say: "Build the Dam!"[814]. Zenawi demanded a "culture of saving", which would apply to governmental expenditures, while encouraging Ethiopians to buy treasury bonds. Finally, he evoked the centuries of impoverishment and the long denial of using the Nile, arguing that the GERD would raise Ethiopia's ability to assert its rights. It would be a testimony for cooperation due to its benefits and the avoidance of any negative impacts for the other Nile basin countries[815].

Thus, then prime minister Zenawi made it clear from the beginning that the project would be financed solely from domestic resources by acquiring financial assistance from its

[807] International Rivers 2014; Water Technology 2018.
[808] International Rivers 2014; Nasr and Neef 2016: 970; Menga 2017: 104.
[809] Shay 2018: 2.
[810] The deposal of president Hosni Mubarak occurred on the 12th of February (Whittington et al. 2014: 599; Nasr and Neef 2016: 970; See also: Abdelhady et al. 2015: 73f.).
[811] Zenawi 2013.
[812] Ibidem.
[813] Ibidem.
[814] Ibidem.
[815] See for the whole paragraph: Zenawi 2013.

citizens, living in Ethiopia and abroad[816]. This is acknowledged as such by the World Bank[817]. According to the scholars Nigatu and Dinar, it constitutes the first attempt of self-financing such a mega dam in Ethiopia's history[818]. Before discussing to what degree this *self-financing strategy* successfully generated a *Third Space of Maneuver* by analyzing its consequences, it needs to be demonstrated that this option determines a "third way" in the Ethiopian context. Thus, it will be pointed out that the Ethiopian government already received - for previous dam projects - financial assistance from the World Bank as well as from Chinese actors. Having the insights of "chapter 8" of this thesis in mind, it will be discussed why the Ethiopian government could not or did not decide for either of the two options but decided for a third option, namely self-financing, in the case of the Grand Ethiopian Renaissance Dam (GERD).

The option with the perquisite of following certain *new international standards*, embodied by the World Bank, was theoretically given as the World Bank has long been active in the Ethiopian water development sector[819]. However, the unilateral launch of the project already limits World Bank support due to its involvement with the Nile Basin Initiative, which promotes *multilateral projects* based on cooperation. Besides, the World Bank's "Water Resources Assistance Strategy" for Ethiopia of 2006 indicates that the World Bank's future support can include - even large and costly - dams; however, the institution demands *multipurpose projects* that combine hydropower, irrigation and regional connection to address Ethiopia's vulnerabilities[820]. The GERD has the single purpose of generating hydropower[821]. Thirdly, several factors do not fulfill the already discussed requirements in the World Bank's policies. The World Bank requires *prior notification* of riparian countries. Furthermore, no *prior in-depth environmental*

[816] See also Salman 2016: 516; Upadhyay and Gaudel 2017: 20.
[817] The report states "the Grand Renascence Dam is expected to be financed largely from domestic sources" (The World Bank 2012: 106).
[818] Nigatu and Dinar 2015: 533.
[819] The World Bank support for Ethiopia in water-related sectors included projects in water and land management, water supply to urban and rural areas as well as hydropower, irrigation, food security and sanitation. In 2003 the Bank's Water Resources Sector Strategy was introduced as an integrated, cross-sectoral strategy, which includes the whole range of World Bank financed programs that affect or are affected by water resources. Its vehicle, the Country Water Resources Assistance Strategy (CWRAS), is decided with the partner government to identify such an integrated approach and, in the case of Ethiopia, aims at implementing Ethiopia's Water Sector Strategy of 2001; See page 76 for a detailed overview of on-going and planned hydropower projects (The World Bank 2006: 1).
[820] As the Ethiopian economy strongly depends on subsistence agriculture, whose productivity is challenged by hydrological variability, the approach of multipurpose investment that provide irrigation and hydropower and the construction of market infrastructure should enable a shift towards commercial agriculture and non-agricultural activities (The World Bank 2006: xii, xxivf, 64-67).
[821] Chen and Swain 2014: 14; Hammond 2013: 2.

assessments have been conducted[822]. The construction contract was given to "Salini Construttori"[823] without *competitive bidding*[824]. Besides, the scholars Kimenyi and Mbaku raise the assumption that the project is *economically not feasible* for international financial institutions[825]. Thus, the Ethiopian government is side-stepping the refusal of lenders, such as, of the World Bank and other Western donors[826].

The World Bank was initially involved in financing the massive Gibe III dam (2009-2013) on the Omo river, which was heavily criticized for its expected negative impacts for the Lake Turkana region[827]. The World Bank officially withdrew due to a "lack of transparency"[828]. A third of the dam's cost was then covered with a US$ 459 million loan by a Chinese bank[829]. Besides, other projects have been already *unilaterally executed* with the financial and technical support of Chinese actors: a large hydropower dam on the Tekeze River was commissioned in 2009 and the run-of-the river hydropower generating Tana Beles dam, discharging water into one tributary of the Blue Nile, was inaugurated on the same day when Ethiopia's prime minister signed the "Entebbe Agreement"[830]. Thus, Chinese actors not only assisted the Ethiopian government in using its hydropower potential but in undermining attempts for facilitating cooperation on the regional level[831]. In September 2010, an Ethiopian minister stated: "[W]hat China has made available to Africa […] are possibilities for consolidating *sovereign choices* and their independently chosen path of development"[832]. The board chairman of the Ethiopian electricity company, which owns the GERD, expressed in an interview in 2012 that international standards would hamper the company's work, while Chinese actors *only consider a project's financial viability* before granting a loan[833].

Thus, the perception of Chinese actors as promoters of *state sovereignty* and their actual involvement in a controversial project, namely Gibe III, show that Ethiopian actors regard them as providing an alternative path. The reason why Chinese actors were not (officially)

[822] Barnes 2017: 11; Adams 2012: 8, 15.
[823] This company is part of the "Salini Impregilo Group" after merging with "Impregilo" in 2014 (Salini Impregilo 2018c).
[824] Adams 2012: 6f.
[825] The scholars claim that the Ethiopian government initially invited donors to finance the project (Kimenyi and Mbaku 2015: 106).
[826] Nasr and Neef 2016: 976; Chen and Swain 2014: 12.
[827] Vasseur, *Deutsche Welle,* 16.08.2012.
[828] Ibidem.
[829] Adams 2012: 8.
[830] Chen and Swain 2014: 16; Swain 2011: 200; Tawfik 2016: 68.
[831] Nasr and Neef 2016: 983; Chen and Swain 2014: 16.
[832] Alemu 2010 cited in Feyissa 2011: 809; The emphasis was added by the author of this thesis.
[833] Adams 2012: 15.

involved in financing the GERD can only be speculated upon: the financing by Ethiopians themselves became the government's priority. It corresponds to the government's efforts to unite the society by making them pay for and thus realize a common national project without foreign support and to eventually use the Nile waters. Thus, the aspiration of restoring national pride through the project was instrumentalized in order to actually realize it[834]. In contrast to the former two case studies, the direct engagement of Ethiopian citizens within and across national boundaries needs to be then considered when analyzing the "international" level of financing. Besides, the unilateral launch of the project provoked reactions by regional actors, such as Sudan and Egypt. Thus, this chapter will have to discuss the engagement of various national, regional and international actors:

Ethiopian nationals as well as foreign nationals of Ethiopian origin are encouraged to purchase the "Grand Ethiopian Renaissance Dam Bond"[835] with 5-6% of interest rate[836]. Additionally, the government is using taxes[837]. Private domestic banks as well as other business enterprises are requested to purchase GERD bonds, while loans are taken from national banks[838]. Governmental employees are encouraged to submit one or two of their (already low) monthly salaries, which many have done due to governmental pressure and patriotism[839]. Other accounts state that the salaries were even deducted[840]. "The Economist" assumed in 2011 that the bond selling approach would only cover a fraction of the costs[841]. The International Monetary Fund (IMF) questioned the economic viability of the project in the long-term[842]. The scholars Abdelhady et al. argue that such a broad bottom-up approach, aiming at uniting the society, is necessary to make the funding work[843]. The government officially insisted on its self-financing rhetoric without using foreign aid[844]. At the same time, several media accounts indicate that the Ethiopian government received a loan from Chinese banks for the turbines and electrical equipment in 2011[845] and a US$ 1 billion loan, primarily from China Exim Bank, for the transmission

[834] Hoering 2015: 73; The Economist 20.04.2011.
[835] The electricity company (EEPCO), which owns the GERD, issued the "EEPCO Millennium Bond", targeting the Ethiopian diaspora (approximately 2 million people) (Kebede 2015; Negash 2009).
[836] The bond can be purchased at branches of the Development Bank (Development Bank of Ethiopia 2018).
[837] Gebreluel 2014: 29; Kebede 2015.
[838] Deressa and Mbaku, *Brookings*, 25.07.2013; Tawfik 2016: 76.
[839] Deressa and Mbaku, *Brookings*, 25.07.2013.
[840] Schadomosky, *Deutsche Welle*, 14.06.2013.
[841] The Economist 20.04.2011.
[842] Davidson, *Bloomberg News*, 14.09.2012.
[843] Abdelhady et al. 2015: 74f.
[844] Upadhyay and Gaudel 2017: 20.
[845] The Economist 20.04.2011.

line between the GERD and the capital in 2013[846]. While receiving financial support from a foreign actor seems to undermine the self-financing strategy practically, the official self-financing rhetoric can still be maintained when not acknowledging the financial support, and while benefitting from the increase of tangible power resources.

While the Tena Beles dam project already earned criticism from Egypt[847], the GERD brings it to a new level as it provides Ethiopia with the chance to control the water flows and adjust the volumes during drought and flood years[848]. Thus, soon after the project's announcement, Egypt initiated rhetorical attacks[849]. Egypt and Sudan demanded a blockage of the project and urged international donors not to engage in funding based on the argument that the dam would negatively affect their acquired water shares[850]. Egypt expected a reduction in hydropower generation at the Aswan High Dam[851]. A few months after the launch, Zenawi said in a broadcasted speech to the Ethiopian parliament that Egypt constitutes the main obstacle for the dam by attempting to jeopardize the project through financial, diplomatic and military means[852]. This was reminiscent of the history of "100 years trying to disrupt Ethiopia's effort to build a large dam on the Nile"[853].

On the other hand, the Ethiopian government, insisting on the regional benefits of the project, successfully encouraged Egypt and Sudan to form an international panel of experts to address the project's impacts[854]. The report of the panel[855] was finalized on the 31st of May 2013, stating that further impact assessments need to be conducted, while indicating that Egypt would probably benefit from the dam project in multiple ways[856]. The main obstacle was that the Aswan High Dam's power generation would be significantly affected in case the filling of the GERD's reservoir would occur during dry years[857]. Likewise, Sudan is expected to benefit from the reduced sedimentation, optimizing the operation of its own dams, and the increased flow regulation is expected to support the expansion of irrigated agriculture, which the government depends on after

[846] Meseret, *ChinaAfrica*, 07.02.2015; See also: Shay 2018: 2.
[847] Egypt News 17.05.2018.
[848] Barnes 2017: 11.
[849] Bayeh 2016: 2.
[850] Tekle, *Sudan Tribune*, 08.03.2012.
[851] See for more details of each countries' concerns: Salman 2016: 516.
[852] It consisted of four international experts and two experts of each country. It started to examine existing documents on the project in May 2012, shortly before Zenawi's death in August (Menga 2016: 713).
[853] Ibidem.
[854] International Panel of Experts 2013: 3.
[855] Abdelhady et al. 2015: 74; Tawfik 2016: 74; International Panel of Experts 2013: 1, 3.
[856] Egypt is expected to benefit from increased irrigational land, less sediment at lake Nasser and less flooding (Nasr and Neef 2016: 971); See also: International Panel of Experts 2013.
[857] Ibidem; Gebreluel 2014: 25; Abdelhady et al 2015: 78; Tawfik 2016: 74.

the secession of oil-rich South Sudan in 2011[858]. Thus, Sudan changed its initial position and politically supported the construction of the dam for pragmatic reasons[859]. Besides, there is evidence that a World Bank funded power transmission line, which is part of the Nile Basin Initiative's activities, already enabled Sudan by then to import 100MW electricity from Ethiopia[860]. This is indicative of the fact that Ethiopia can undermine the World Bank's position by using other projects for bargaining and establishing long-term relations with Sudan. This is supported by the fact that a recent report stated that the GERD project includes a transmission line to Sudan's capital Khartoum, while excess electricity will be exported to neighboring countries like Kenya via another transmission line that is funded by the World Bank[861].

Three days before the report of the international panel of experts was released, the Ethiopian government celebrated the diversion of the Blue Nile's course as a basis for the actual dam construction[862]. The Egyptian government, pressured by domestic political problems and offended by the refusal not to wait for the report's outcome, reacted strongly[863]. According to the "BBC", enraged politicians advised Egyptian president Morsi to attack Ethiopia militarily or to sabotage the dam by sponsored rebels, which was unknowingly broadcasted on live TV, causing embarrassment[864]. Due to pressure, Morsi sent a warning to Ethiopia, stating that "all options are open"[865], demanding for a construction halt until further studies are conducted[866]. As a response, the Ethiopian side made clear that the construction would not be stopped for a second[867]. This determination was underlined by the unanimous voting of the Ethiopian Parliament for ratifying the "Entebbe Agreement" on the 13th of June 2012[868]. The Ethiopian side also stated that the advices of the international panel of experts did not include a construction halt[869].

Thus, Egypt's threat of using its tangible power resources (military attack)[870] in order to increase its bargaining power was not effective. Besides, a military confrontation would

[858] Tawfik 2016: 76; Mekonnen 2017: 270.
[859] Ibidem.
[860] Tekle, *Sudan Tribune*, 08.03.2012; The World Bank Group 2018a.
[861] It refers to the Eastern Electricity Highway Project (Berwin Leighton Paisner 2018: 1f.).
[862] Salman 2016: 517
[863] Ibidem; Woldetsadik 2015: 405; See also: Kimenyi and Mbaku 2015: 107f.
[864] Maher, *BBC News*, 04.06.2013.
[865] Gebreluel 2014: 26.
[866] Salman 2016: 518.
[867] Woldetsadik 2015: 405.
[868] Schadomsky, *Deutsche Welle*, 14.06.2013.
[869] Salman 2016: 518.
[870] According to Motlagh et al. Egypt has a large military arsenal and benefits from a strategic partnership with Arab countries (2017: 75).

be destructive for Egypt as well[871], while lacking the actual financial resources at that time[872]. Despite this deadlock and after the deposal of Morsi, the discussion on crucial issues continued among the respective ministers[873]. The Ethiopian side was playing on time to make the GERD a *fait accompli,* while Egypt hoped Ethiopia would run out of financial means[874].

As another ministerial meeting in January 2014 did not lead to any results[875], the Egyptian side changed its strategy by requesting to jointly finance and operate the dam, which was refused by Ethiopia[876]. The spokesperson of the Ethiopian Ministry of Foreign Affairs, Dina Mufti, explained that the dam's joint operation would be impossible as it constituted a matter of sovereignty[877]. Fekahmed Negash stated on behalf of the Ministry of Water and Energy: "We did not want this dam to suffer from external pressures, particularly with respect to financing"[878]. He also said that US$ 1,5 billion have been already acquired, while the construction company confirmed in-time payments[879]. Negash put emphasis on Ethiopia's bargaining power by stating that Egypt successfully pushed away China's "Electric Power Equipment and Technology Co." regarding the GERD's transmission line, however, having another Chinese actor take over[880]. His Egyptian counterpart generally confirmed Egypt's strategy of using its foreign relations to convince foreigners not to engage in the project[881].

In June 2014, Egypt's strategy changed again under the presidency of Abdel Fattah el-Sisi. It seems that he realized that the dam's construction cannot be prevented and opted then for cooperation, while intending to maintain Egypt's acquired water rights[882]. In August 2014, the establishment of a technical committee between all three regional actors was decided upon[883]. Its task was to execute the additional studies that were recommended by the international panel of experts with the assistance of international

[871] Besides, Gebreluel states that in the past decades Egypt relied on sponsoring rebel groups to weaken the politically unstable country as one strategy to maintain its hydro hegemony (2014: 26f.).
[872] Milas, *African Arguments*, 10.06.2013; Verhoeven, *Al Jazeera*, 13.06.2013.
[873] Woldetsadik 2015: 405; Salman 2016: 518.
[874] Ibid: 518f.
[875] Ibid: 518; Abdelhady et al. 2015: 78; Nasr and Neef 2016: 976.
[876] Tawfik 2016a: 1039; Maasho, *Reuters*, 23.04.2014.
[877] Tawfik 2016a: 1039.
[878] Maasho, *Reuters*, 23.04.2014.
[879] Tawfik 2016a: 1039; Maasho, *Reuters*, 23.04.2014.
[880] Ibidem.
[881] Ibidem.
[882] Mekonnen 2017: 268; Nasr and Neef 2016: 976; Bayeh 2016: 2.
[883] Nasr and Neef 2016: 976; Abdelhady et al. 2015: 78.

consultants. This constitutes Egypt's *official acceptance of the dam's construction*[884]. At the same time, two events occurred on the international level which arguably increased the bargaining power of Ethiopia's political leaders. First, a group of international experts released a report in November 2014, stating their general support of the GERD[885]. Secondly, according to foreign media accounts, the Ethiopian government was able to launch its first sovereign bond sale[886] in December 2014 in order to generate US$ 1 billion foreign currency for large infrastructure projects, including the GERD[887]. The bond was successfully marketed in Europe and the US, attracting ten private investors, such as Aberdeen and the Goldman Sachs Group[888]. Thus, the self-financing strategy now seems to include foreign private actors, however, based on the general credit worthiness of the government, maintaining sovereignty regarding the project's features.

The head of states of Sudan, Egypt and Ethiopia signed for the first time in history a comprehensive agreement, the "Declaration of Principles"[889], on the 23rd of March 2015, which recognized the *rightful construction* of the GERD[890]. The 2nd principle shows that the Egyptian and Sudanese representatives were successful in securing the exclusive consumptive utilization of Nile waters as the GERD's purpose is limited to producing hydropower[891]. However, this purpose was anyway promoted by Ethiopia. Cooperation on the project was then facilitated by the regional actors with almost no foreign involvement[892]. This shows that the project moved initially from multilateral negotiations

[884] The international panel of experts recommended two studies: one was to come up with a water resources/hydropower system simulation model and the other one at conducting a transboundary environmental and socioeconomic impact assessment (Abdelhady et al. 2015: 74); Salman 2016: 519.
[885] The experts were part of the Massachusetts Institute of Technology (Massachusetts Institute of Technology 2014: 2).
[886] A Sovereign Bond is issued by a national government as a debt security. Credit rating agencies, such as Moody's Investors Service, Standard & Poor's and Fitch Ratings rated Ethiopia at B+, providing the basis for issuing a Sovereign Bond with a reasonable interest rate of 6,625% with a maturity period of 10 years (Barnes, *Construction Review Online*, 10.12.2014). Moody's rated Ethiopia at B1 in February 2018 and Fitch at B in June 2018 (CbondS 2018).
[887] Manson and Blas, *Financial Times*, 25.11.2014; Barnes, *Construction Review Online*, 10.12.2014.
[888] Kebede 2015; Reuters 21.10.2015.
[889] The perception of the declaration varies among scholars. For instance, Salman regards it as a landmark as for the first time the equality of all Nile basin states and their right to utilize Nile waters are named, while principle 4 is in favor of Ethiopia as it mirrors the "Entebbe Agreement". Sudan and Egypt still oppose it since it acknowledges the water contribution of each state to the river Nile as one factor for determining the "equitable and reasonable utilization". It does not include their demand for a clear recognition of their "water security" (Salman 2016: 521, 525). Others argue that it mirrors aspects of colonial agreements. For instance, the existing use of water uses should be acknowledged (Keith et al. 2017: 33; Bayeh 2016: 1-3).
[890] Keith et al. 2017: 33; Upadhyay and Gaudel 2017: 20; Bayeh 2016: 1.
[891] Mekonnen 2017: 268.
[892] Cascão and Nicol 2016: 566.

on a regional level that included the World Bank as an international actor to the national level as a unilateral project and then again on the regional level.

However, the subsequent technical discussions involved - as already agreed upon - international consultants. According to Salman, the role of French and Dutch firms was debated for several months, delaying the start of their impact studies and hence buying the Ethiopian government time. It announced in December 2015 that the cement and steel work of the dam was completed and thus the Blue Nile re-diverted to its natural course, making the project now also a *practical reality*[893]. This contributed to an eventual agreement on the technical studies[894]. As a last step of the implementation process, the crucial issue of filling the reservoir will be discussed. The focus on this crucial issue during the firms' studies was strongly recommended by the technical committee[895]. However, as the Sudanese and the Ethiopian side had still not approved the suggested studies in May 2017, El-Sisi sent military warnings in November 2017[896]. Later on, he stated that Egypt was not ready to give up its water shares and that the GERD was a "matter of life or death"[897] for Egypt. The Ethiopian side responded that it did not need permission to make use of its natural resources[898].

In late December 2017, Egypt again showed a change in strategy as its foreign minister suggested to include the World Bank as a neutral actor in the technical committee due to its experiences. He also pointed at the necessity of signing an agreement prior to the filling of the dam[899]. Besides, El-Sisi agreed in January 2018 that he would not engage in a water war. He also proposed the engagement of the World Bank, while the Ethiopian prime minister Desalegn persistently opposed the suggestion[900].

After Desalegn's sudden resignation and the election of the new Ethiopian prime minister, Abiy Ahmed, in April 2018[901], the course in the negotiations appeared to have changed. On the one hand, meetings have continued with promising statements in a friendly atmosphere and the proposal of establishing a joint fund for infrastructure[902]. However,

[893] Salman 2016: 522f.
[894] Ibid: 523.
[895] Shay 2018: 4.
[896] Real Estate Monitor Worldwide 20.11.2017.
[897] El-Sisi 2017 cited in Ahram Online 18.11.2017.
[898] Real East Monitor 25.11.2017.
[899] The *Declaration of Principles* demands for this (Financial Services Monitor Worldwide 28.12.2017).
[900] Connolly, *Foreign Brief*, 12.07.2018.
[901] Parkinson and Stevis-Gridneff, *The Wallstreet Journal*, 17.07.2018.
[902] El-Bey, *Ahram Online*, 05.07.2018; Raji, *African Business Magazine*,10.07.2018.

no progress on crucial issues has been made as of July 2018[903]. The technical team, which included foreign actors, was replaced by a new team, consisting only of experts from the three countries, and which had to discuss the pressing issue of the reservoir's filling[904]. Not surprisingly, Ethiopia favors a short filling period of only 3-5 years, while the Egyptian side demands for 7-10 years due to the fear of a reduced water share[905]. Thus, Ethiopia's strategy of buying time seems to have continued as 65% of the dam is already completed and might be fully completed in 2019[906]. On the other hand, the new prime minister did not hesitate to enhance economic reforms, including the liberalization of certain economic sectors to attract foreign investments as the country lacks foreign currency and its economic growth rate reduced to 8,5%[907]. Hence, he responded to the mass protests of youths, occurring ethnic tensions and the need for a new development model that creates more jobs and recognizes political and civil rights[908]. According to some news agencies, the crown prince of the United Arab Emirates offered to assist Ethiopia with a US$ 1 billion deposit as part of an aid and investment pledge[909]. One commentator assumed that this money might be used to complete the GERD[910], while the "Wall Street Journal" stated by mid-2018 that it was used for the project[911]. According to "Bloomberg", the prime minister acknowledged in July 2018 that the massive project still lacks financial resources to be completed[912]. Thus, as of mid-August 2018, Ethiopia's self-financing rhetoric was successful in making the project a legal and practical reality, while its physical realization will most likely depend on the - official - acceptance of foreign financial assistance.

10.5 Planning and Promoting the Grand Ethiopian Renaissance Dam

The analysis in the previous chapter already emphasized the direct engagement of the Ethiopian citizens and their essential role for the project's realization as the political leaders rely on their financial support. The planning process was already discussed since it paralleled the re-negotiation efforts by actors on various levels. Hence, this chapter will analyze how the national level of promoting the project is intertwined with this rather

[903] El-Bey, *Ahram Online*, 05.07.2018.
[904] Ibidem.
[905] Ibidem.
[906] Ibidem.
[907] Horn Diplomat 13.07.2018.
[908] Burke, *The Guardian*, 08.07.2018.
[909] El-Bey, *Ahram Online*, 05.07.2018.
[910] Ibidem.
[911] Parkinson and Stevis-Gridneff, *The Wallstreet Journal*,17.07.2018.
[912] Manek, *Bloomberg*, 06.07.2018.

transnational level of financing. Due to the global reach of (social) media the Ethiopian diaspora is as well targeted, indicating the level's international dimension.

The self-financing strategy of the government does not allow any counter voice, evident by the fact that one Ethiopian journalist was sentenced for terrorism after criticizing the enforcement of state employees to make financial contributions in 2011[913]. Parallel to the Grand Ethiopian Renaissance Dam's launch in 2011, the government initiated a campaign aiming at turning the project into a patriotic one that would symbolize the *renaissance* of the nation[914]. Thus, it functions as a tool for nation-(re)building.

Across the country, omnipresent billboards promote the massive dam as a symbol for national pride and success, and as having the capability of leading Ethiopia to a prosperous future. These are often linked to the figure of Zenawi as the realization of the project also serves as a tribute to the beloved former leader[915]. Besides, ideas and words used for the project's presentation often originate from Zenawi[916]. Similarly, Nasser's words were used to promote the Aswan High Dam. Images of the GERD, which are connected to the notion of *renaissance* indicating *development*, can be found on daily items, such as recharging cards for mobile phones and on occasional cards[917].

Due to state media control, the government can present its project in a specific way[918]. Belay's analysis of an Ethiopian newspaper, "The Ethiopian Reporter", in March 2014 indicates a promotion of the government's interests: no attention was paid to social and environmental concerns, while the project's role for Ethiopia's development was mostly discussed. The illegitimate nature of the 1959 agreement and Ethiopia's right to build the dam as well as the mutual benefits for the regional actors were highlighted, while denying harm on Egypt's Aswan High Dam[919]. According to Menga, the - arguably successful - presentation of the project as a foreign policy matter is applied since sensitive issues, such as its large costs, appear justified by a foreign policy success. This is embodied by the dam's implementation against the opposition of the regional actors, while boosting the needed societal support of an authoritarian government[920]. Besides, the "national image

[913] Asylum Research Consultancy 2016: 58; See her whole column: Reeyot 2011.
[914] Menga 2017: 100.
[915] Menga 2016: 713f.
[916] Menga 2017: 105.
[917] Orlowska 2013: 313.
[918] Menga 2017: 104.
[919] Belay 2014: 1-7.
[920] Menga 2017: 101, 104.

frame" is often applied to emphasize the magnitude of this historical achievement via financial self-reliance and the strong cooperation between the people and the government, portraying the dam as a symbol of political unity as well as modernity[921].

According to the "Financial Times", the Ethiopian state television encouraged citizens of all economic income classes to purchase bonds for realizing the project on a daily basis, convincing even members of the political opposition[922]. A discourse analysis of the main Ethiopian TV channel, "EBC", indicates that the current status of the construction as well as the involvement and support of the diaspora were broadcasted on a weekly basis between 2011 and 2015[923]. The availability of internet, especially social media, constitutes an essential tool to engage with citizens within and across the national boundaries[924], which was not possible in the former case studies. For instance, the Ministry of Foreign Affairs publishes photographs and videos of the construction process on its Facebook page and allows only positive comments to be seen: for example, phrases such as "I miss my country"[925] indicate that members of the diaspora access it, expressing patriotism and optimism on the project's benefits[926]. In February 2017, the government announced that more than US$ 2 million were raised by Ethiopian diaspora communities in various parts of the world within the past six months[927]. A recent report of the Ethiopian embassy in London indicates continuing support[928]. At the same time, other accounts claim that members of the diaspora refused to invest in the project as they criticize corruption in the private sector and undemocratic government policies and activities, especially the denial of the right of freedom of expression and the hushing of protests[929].

Besides, several activities attempt to reunite Ethiopians across regional boundaries within the country. This approach needs to be understood as an attempt to break with the ruling party's former emphasis on ethnic federalism by applying the huge dam as a unifying factor on-site. For instance, Zenawi initiated the touring of the "Renaissance trophy" through all regions within the Ethiopian territory, having raised 1,4 billion Ethiopian Birr as of June 2017[930]. While reporting on the festive ceremonies and enthusiasm of

[921] Belay 2014: 4.
[922] Manson, *Financial Times*, 19.06.2012.
[923] Menga 2017: 106.
[924] Ibid: 107.
[925] Desta cited in The Ministry of Foreign Affairs of Ethiopia 2018.
[926] The Ministry of Foreign Affairs of Ethiopia 2018.
[927] Gebrezgabiher, *The Ethiopian Herald*, 21.02.2017.
[928] Ethiopian Embassy in London 2018: 24.
[929] Deressa and Mbaku, *Brookings*, 15.07.2013.
[930] Ethiopian Embassy in London 27.06.2017; Gebrehiwot, *The Ethiopian Herald*, 14.06.2017.

participating people, the Ethiopian media contrasted the amount of money raised by the different states and at the same time stressed the achievements of an individual state[931]. Apart from this, another occasion was used to appeal to people's sense of competitiveness. On the dam's 7th anniversary since construction started, the Ethiopian authority, which is in charge of engaging the public with the GERD's construction, facilitated athletic mass events in 100 cities in order to enhance support and unity for the project[932]. On the 18th of March 2018, the GERD bond week started, encouraging citizens to buy bonds as presents for family members and friends in tents situated in the capital as well as in 200 temporary sales centers nationwide[933]. Besides, the construction site is open for visitors to follow-up with the progress[934]. As of April 2018, half a million Ethiopian citizens as well as journalists, foreign visitors and four hundred investors have taken advantage of this offer[935].

According to official statements, the project achieved its aspiration as it indeed "has become a symbol of national consensus"[936]. The "Ethiopian Herald" wrote in March 2018: "contemporary Ethiopians have once again pioneered in self-financing huge projects, […] while setting the examples to the people of Africa and the entire black community as it is possible to unshackle themselves from all forms of oppression"[937]. This indicates that the promotion of the self-financing strategy as well as of the "Ethiopian Renaissance", linked to the neo Pan-African initiative of "African Renaissance", was actively applied until prime minister Abiy Ahmed came into office. The UN Secretary General, Antonio Guterres, stated in July 2018 that the new prime minister's efforts for unity did not only lead to enthusiasm within the country but also in the international community; however, he pointed at the challenges of inter-communal tensions in Ethiopia's south demanding for an UN emergency fund[938]. The assumed national consensus on the project indeed surpassed a period of complex regional tensions. For instance, between ethnic Somali and Oromo starting in September 2016 with ethnic violence carried out by both region's police services, leading to one of the worst

[931] Gemeda, *Tigrai Online*, 4.10.2017; Gebrehiwot, *The Ethiopian Herald*, 14.06.2017.
[932] This authority is called: "Office of the National Council for the Coordination of Public Participation on the Construction of the GERD" (Xinhua 23.05.2018).
[933] Ethiopian News Agency 14.03.2018; Government Communication Affairs Office 2018.
[934] Real Estate Monitor Worldwide 20.11.2017.
[935] Shay 2018: 3.
[936] EXPOGROUP 2017; Ethiopian Embassy in London 2018: 24.
[937] The Ethiopian Herald 02.03.2018.
[938] UN News 12.07.2018.

population displacements in recent times[939]. A rally with ten thousand of Ahmed's reform supporters, carrying signs of "one love, one Ethiopia"[940], in June 2018 was disturbed by the lighting of a grenade. This was probably instigated by one of the new prime minister's opponent groups, who faced the disadvantages of his reform measures[941].

10.6 Constructing the Grand Ethiopian Renaissance Dam

According to the scholars Chen and Swain, little information about the construction process was communicated to the public as of end 2012 and thus to the national level[942]. Being owned by the "Ethiopian Electric Power Corporation" (EEPCO), the project's main contractors are "Salini Construttori", responsible for the engineering, procurement and construction, and the Ethiopian military-run "Metals and Engineering Corporation" (METEC), being in charge of the electro-mechanical works[943]. Besides these, the Italian-Franco joint venture of "ELC Electroconsult" and "Coyne et Bellier" are engaged as consultants[944]. According to official estimates, approximately 15.000 Ethiopians were working at the construction site as of 2016[945]. According to a different source, approximately 9,000 were working on-site during March 2018, while only around 250 of them were foreigners with various backgrounds[946]. The "Transportation Worldwide Monitor" stated that almost all professionals involved in the construction as well as in the security work are "in the age bracket of youth"[947]. It claimed that their aspirations are lifted up as the dam functions to be promoting technology transfer and the development of a new generation of engineers. These engineers could use the gained expertise in the course of further hydropower projects within Ethiopia and in Africa in general[948].

Besides, the GERD's visit program was to be expanded after the respective Ethiopian authority realized by March 2018 that apart from seeing the project's progress itself, witnessing the "youths' determination in a beating tropical climate"[949] stimulated the visitor's participation[950]. Thus, apart from being engaged as realizing the dam physically,

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[939] Jeffrey, *Deutsche Welle*, 05.12.2018.
[940] Burke, *The Guardian*, 08.07.2018.
[941] Ibidem.
[942] Chen and Swain 2014: 13.
[943] Updadhyay and Gaudel 2017: 19; Nasr and Neef 2016: 970f.; Water Technology 2018; Horn Affairs 12.09.2011.
[944] Pham 03.04.2018.
[945] Tawfik 2016a: 1040f.
[946] Pham 03.04.2018.
[947] Transportation Worldwide Monitor 10.3.2017.
[948] Ibidem.
[949] The Ethiopian Herald 02.03.2018.
[950] Ibidem.

the actors at the local level are instrumentalized for the self-financing strategy and engage directly with the financial actors since investors come to visit the site. As well, it is reported that workers and farmers engaged in environmental protection work. They have transplanted more than four billion seedlings nearby the construction site[951]. Here, again the financial value of this effort, worth 47 million Birr[952], was mentioned, mirroring again the omni-present reference to the self-financing strategy. The popular chief engineer, Simegnew Bekele, who functioned as the national face of the project was found shot dead on the 26th of July 2018[953]. A journalist of the "Ethiopian Herald" framed his killing as an encroachment upon Ethiopian's sovereignty as he represented "the sense of victory against the archaic that Ethiopians could not do something worthwhile without the aid of some foreign element [and] in trying to take care of their own business on their own terms and not submitting to some foreign blackmail or influence"[954].

10.7 Interim Conclusion

Although taking shape within the *resource scarcity-sustainable development-ecological modernization-multipolarity-nexus*, the origins of the Grand Ethiopian Renaissance Dam are embedded in the *decolonization-development-modernization-Cold War-nexus.* Thus, the project's entanglement with the financial negotiations of the Aswan High Dam and the subsequent successful opening of a Third Space of Maneuver by Haile Selassie demonstrate the impact of the Cold War era through time and space. The project was shaped by the activities and interests of re-occurring actors and their legacy. The proposal of the potential project site and the historical injustice caused by the *1959 Nile Waters Agreement*, which provided the legal basis for the Aswan High Dam, were used by Ethiopia's political leaders as (in)tangible power resources when trying to implement the project on the regional level under the Nile Basin Initiative (NBI). While it would have provided the access to external funding, corresponding to the ruling party's pragmatic foreign policy-making, it would have demanded for a cooperative project management aiming at benefit sharing. This mirrors the zeitgeist that shapes the 21st century era of large dam construction. While the Ethiopian side presented itself as cooperative, based on certain conditions, the actions of the Egyptian side and to a lesser extent the Sudanese side made clear that a joint project would not be realized anytime soon.

[951] Ibidem; Ethiopian Embassy in London 2018.
[952] Ibidem.
[953] Oirere, *Engineering News-Record*, 07.08.2018.
[954] Getachew, *The Ethiopian Herald*, 06.08.2018.

The decision to realize the project unilaterally on a national level via self-financing was not only a response to the actions of the two downstream countries, but also constitutes a third way as the government does or cannot opt for the - official - support of the World Bank or Chinese actors. Instead, it opted for a path that does not only appear to be the most plausible for actually realizing the dam according to the government's vision and timing but at the same time benefits its image towards international, regional and national actors. The decision was backed up from the beginning with a certain degree of tangible power resources, namely economic growth and the geographical position as an upstream country, in which the Blue Nile originates. Hence, it bears the potential for full control of the Blue Nile waters. The geographical position was vital in ignoring and overcoming the various shifting tactics of Egyptian actors. While preventing influence of foreign actors, Ethiopia's political leaders had to instrumentalize national pride and to frame the dam project as a foreign policy matter, whose success depends on united and supportive Ethiopians, in order to receive financial support. However, several media accounts state that financial assistance, such as loans from Chinese actors, the purchase of the sovereign bond to foreign private investors and the financial support by the United Arab Emirates, indicate that the self-financing strategy became primarily official rhetoric, and obscured its practical dimension. However, as the strategy's various elements proceed and make up for at least a fraction of the overall cost, it still constitutes an alternative financing mechanism with a high degree of sovereignty.

The Ethiopian government also benefitted from the involvement of foreign actors as the independent report of the international panel of experts contributed to Sudan's eventual support of the project. Likewise, this seems to have been enhanced by the Ethiopian political leader's rhetoric on mutual benefits and the undermining of the World Bank's role when making use of the bank funded transmission lines in the region. The fact that Egypt recognized the project as a legal and practical reality and that the dam's physical realization is underway shows that the project is as of yet going to be implemented. Thus, based on the available sources, the Ethiopian political leaders successfully managed to generate a Third Space of Maneuver via the self-financing rhetoric in terms of several quintessential steps in the overall implementation process and despite the re-negotiating efforts of Sudan and Egypt: the project's design, scope and location as well as the timing of its proceeding. However, the burden of the project for the economy, the government's change of direction under the new prime minister as well as the actual benefits and productivity of the project itself are unclear as of yet. These will contribute to answering

the question if the project enjoys actual national consensus and to what degree it will meet its intended outcome in the long-term. The opening of a Third Space of Maneuver was not only possible due to the project's embeddedness in a multipolar world order but is indeed created in a very specific context that joins several essential factors: the dam industry and its actors' general stances, capabilities and limitations, their concrete activities in the Ethiopian water development sector, Ethiopia's history in terms of dam construction and the pragmatism in foreign-policy making.

11. Conclusion and Outlook

The stated overall aim of this master thesis was to take the key ambition of Global Studies at the core of its approach and thus to actually make sense of globalization processes by examining, highlighting and entangling *global interconnectedness*. This was to be realized by taking large dam projects, which function as national prestige projects, as an object of study.

These projects mirror a government's domestic policy agenda as they are part of economic (recovery) and development plans. Besides, they have a foreign policy dimension when damming international rivers, which affects riparian states, as well as when serving (geo-)political interests of the dam-building government and of foreign actors that provide financial and technological support. Thus, though a large dam is physically situated within national boundaries, the large dam as a project is shaped by various cross-border contacts, transfers and interferences. By uncovering these and identifying their relevance, global interconnectedness through *space* can be demonstrated, especially when discussing several large dam projects in different countries. This includes to analyze how the implementation processes of each project are shaped, in how far and why they vary and to explore if the project's implementation processes influence each other, which would indicate entanglements. By focusing on large dam projects that have been realized in different decades and by exploring connections and analogies, interconnectedness through *time* can be demonstrated. These considerations explain the *spatio-temporal approach* of this thesis. Large dam projects in African states were chosen as case studies since this thesis sought to contribute to the debate on *African agency* by analyzing the bargaining power of African political leaders when negotiating their costly projects with dominating state actors in global and economic affairs of their time, the United States, the Soviet Union and China, and multilateral financial actors, such as the World Bank.

The implementation processes of three projects, the Aswan High Dam in Egypt (1960-1970), the Akosombo Dam in Ghana (1961-1965) and the Grand Ethiopian Renaissance Dam (GERD) in Ethiopia (2011-present) were analyzed. The implementation process included besides the acquisition of financial resources and technological support (international level), in some cases legal agreements with riparian states (regional level), the planning and promotion (national level) and the actual construction of the dam (local level). Each of the project levels was analyzed by focusing on the engagement of the African political leaders with involved actors, such as foreign governments, financial institutions, companies, the society and the workers, while pointing out how the interactions have influenced each other. Thus, this master thesis considered a wide range of overlapping and intertwined ideological, imaginary, political, financial, economic, technical and legal processes that intersected in the object of study. These processes were discussed from the perspective of African political leaders by not only considering their personal and political interests but also the historic and geo-political context that shaped their actions and the reactions of negotiating partners. This approach was essential to historicize, to satisfy and to capture the complexity of the actor's interests, the subsequent dynamics of interactions and highlighted the underlaying economic, political and institutional structures that determined the materialization of a project. The thesis also considered the key periods of the general history of large dams (1920s-2018) to provide an additional historic context, which resulted in the fact that it covered almost one century of contemporary history and presented actors and projects from countries of four continents.

Thus, before having analyzed the cases of the Akosombo Dam and the Aswan High Dam, which were embedded in the *decolonization-development-modernization-Cold War-nexus* and realized with the financial and technological support of one of the two superpowers, river basin development in the United States and the Soviet Union was addressed. By discussing the American Hoover dam and the Soviet Dnieper hydroelectric station, it was demonstrated that both future superpowers established "exportable" expertise during the interwar period, while the American Hoover dam is often presented as having ushered in the era of large dam construction. By paying attention to developments in both countries and by considering entanglements, the discussion showed an essential transfer of expertise since the Soviet Union depended on machinery and engineers from the United States to realize their large dam. The gained expertise was incorporated in the then established Soviet "Hydroproject", which was later in charge of

constructing the Aswan High Dam in Egypt. Just like Soviet workers were trained by American engineers, the Egyptian dam builders profited from on-site training centers, which highlights a multi-directional transfer of knowledge.

The recognition of US expertise in constructing large dams was advanced by the Tennessee Valley Authority (TVA), which served as a model for river basin development that included large multipurpose dams. While US agencies, such as the Bureau of Reclamation (USBR), were directly involved in transferring this model to Africa and Asia, this thesis showed how even the perception and reputation of the TVA model shaped the three case studies projects as the result of tracing the developmental aspirations surrounding large dams. In the case of the Aswan High Dam, an Egyptian agronomist, successfully introduced the idea of realizing the dam as a multipurpose project after being personally exposed to the - for him - innovative approach in the United States. His proposal was taken up by the Egyptian political leaders as the manifold expected benefits could justify the massive project later on. In the case of the Akosombo Dam, the idea of creating an African version of the Tennessee Valley Authority (TVA) was realized when establishing the Volta River Authority (VRA). By tracing the impact of the Tennessee Valley Authority (TVA) and of the Hoover Dam, an essential link with the Grand Ethiopian Renaissance Dam (GERD) was discovered, even though the construction started only in 2011. Ethiopia's last emperor, Haile Selassie, visited the US personally in the 1960s, which inspired him to advance river basin development in Ethiopia. An extensive report of the then engaged US Bureau of Reclamation (USBR) of 1964 already suggested the project site of the GERD. The analysis had shown that the outcome of the financial negotiations of the Aswan High Dam had an impact on the USBR's report and discussed how Selassie used the rivalry between the United States and the Soviet Union to create a Third Space of Maneuver. This connection was uncovered by the combination of tracing *developmental aspirations*, which were evoked by an unprecedented project or model that influenced subsequent projects, of tracing *entanglements* and their legacy as well as of analyzing the *bargaining power* of involved human actors.

The analysis of the thesis was based on the assumption that the developmental aspirations surrounding large dams were similar throughout the past century, considering that large dams were heavily criticized from the 1970s onwards, inter alia, for their weak economic performances. The promotion of the US American Hoover dam and the Soviet Dnieper hydroelectric station indicated the desire for progress by integrating peripheral regions

into the economy, the expectation of positive consequences on a national level in terms of employment, electrification and industrialization, and thus the overall transformation of the country. Embedded in the *decolonization-development-modernization-Cold War-nexus*, the Aswan High Dam and the Akosombo Dam were expected to advance industrialization via hydropower, diversify the economy and raise living standards by providing employment opportunities. Both acted as symbols for independence, modernity and leaving the colonial era behind, which caused underdevelopment, by catching up with the West (and the East). The Aswan High Dam was to win the hearts and minds of Egyptians and to create national pride by demonstrating the capabilities of an emerging state as the project was advanced by the revolutionary government, led by Gamal Abdel Nasser. Kwame Nkrumah, who did not come into power after a coup d'état but was the elected first prime minister of Ghana, rather emphasized the project's benefits for the whole region by selling electricity. More than half a century later, the Grand Ethiopian Renaissance Dam (GERD) is embedded in the *resource scarcity-sustainable development-ecological modernization-multipolarity-nexus*. The massive dam is promoted as eradicating poverty, providing water and energy security, diversifying and modernizing the economy and as essential for fulfilling Ethiopia's objective of rapid development. The dam acts as a symbol for Ethiopia's "renaissance", for leaving underdevelopment behind and thus for restoring national pride.

This shows the persisting manifestation of the modernization ideology over time, which explains the reoccurrence of certain aspirations. Apparently, large dams were and still are framed as signifiers for emancipation and identification in African states despite the dependence on foreign expertise and capital. In contrast to Nkrumah's emphasis on regional benefits, which is linked to his Pan-African vision, the promotion of regional benefits of the Grand Ethiopian Renaissance Dam (GERD) was a diplomatic tactic of the Ethiopian political leaders. At least superficially, they demonstrated goodwill to Sudan and Egypt. The massive dam on the Blue Nile acts as a symbol for eventually using the Nile waters after the long denial. This denial is linked to the Aswan High Dam, which was sanctioned by the "1959 Nile Waters Agreement" between Sudan and Egypt that divided the natural flow of the Nile exclusively between the two regional actors without considering the other riparian states. This shows that uncovering the entanglement of the GERD and the Aswan High Dam was essential to fully comprehend the aspirations surrounding the GERD. It can be concluded that all projects served political interests and were used by the African political leaders to gain or maintain political power - either in

the regional or national context. Economic, developmental and societal needs and environmental conditions, were instrumentalized to justify the advancement of these projects.

Hence, it was important to discuss the aspirations surrounding large dams in general and in particular to identify the motives of political leaders in the three African states. The need for foreign capital and technological expertise urged them to enter the global economy, which is characterized by power asymmetries, political interests and dependencies. In light of this, the thesis argued that the African political leaders have generated a *Third Space of Maneuver* by pursuing a certain foreign policy strategy that actively took advantage of a seemingly binary context to advance their own costly prestige projects. It ascribed a certain degree of power to these African actors which was gained through negotiation processes when taking advantage of their time and space, although not causing structural changes. The conclusions will be briefly summarized:

Embedded in the decolonization-Cold War context, Nkrumah and Nasser pursued non-alignment as a foreign policy strategy. They used the competition between the two superpowers, the United States and the Soviet Union, for their own interests by engaging with both actors to eventually receive the needed financial and technological support. Regarding the Aswan High Dam case, Nasser was only successful in attracting the interest of the Eisenhower administration to fund the dam after purchasing arms from the Eastern bloc. Later on, various political reasons led to the withdrawal of the US government, which was also influenced by the loan offer of the Soviets, which Nasser also attracted. In order to regain control and prove his political sovereignty, Nasser opted for a self-financing strategy by nationalizing the Suez channel in order to use the gained revenues. However, the lack of necessary financial and human resources resulted in cooperation with the Soviets. The course of events showed that Nasser was successful in generating a Third Space of Maneuver since he managed to get financial support - immediately and also again later on - for a project he intended to implement without losing his face by making certain political commitments demanded by the West and by playing out a pragmatic rather than an ideological non-aligned approach.

In contrast to Nasser, Nkrumah had to make several compromises on his socialist vision in order to realize the Akosombo Dam. Although an initial agreement with the West was made, Nkrumah started to engage more aggressively with his potential financial partners, criticizing the US and sympathizing with the Soviets in many ways. Nevertheless, three

factors saved the project's financing: the pressure on Kennedy to support newly emerging nations and thus to prove to do better than Eisenhower by showing that his sympathy of "Third World Neutralism" was genuine, Kennedy's letter to Nkrumah with a personal and moral commitment and finally the entanglement with the Aswan High Dam. The Kennedy administration did not want another African dam to be built by the Soviets. Thus, it can be said that the project was rescued by the Cold War environment and the acknowledgement of the struggle for decolonization and nation-building, showing that Nkrumah opened a Third Space with a high range of Maneuver in terms of eventually implementing a large dam project. However, it was at the expense of his personal-political vision as he made several compromises and at the expense of manifold changes in the project's composition and to disadvantageous social and economic conditions.

The analysis showed that not only the decolonization-Cold War context provided avenues for playing out the rivalry of two dominating powers in order to advance national prestige projects. In a similar way the ideological confrontation between the World Bank, who tends to promote the *new international standards* for constructing large dams in the 21st century, and Chinese actors, which tend to promote *state sovereignty*, opens spaces of maneuvering. The Ethiopian government had already received financial assistance from the World Bank and of Chinese banks for previous projects and thus tried both options. In the case of the Grand Ethiopian Renaissance Dam (GERD), the Ethiopian government opted for a third and supposedly independent way by applying officially a self-financing strategy after it could not advance the project as a joint one with Sudan and Egypt. The Ethiopian government's actual strategy relied on foreign financial assistance as it received loans from China and the United Arab Emirates and purchased a sovereign bond to foreign private investors. However, it has been argued that this did not undermine but actually assisted the realization of the official strategy when looking at the course of the implementation process. The fact that Egypt and Sudan recognized the project as a legal and practical reality and that the dam's physical realization is underway shows that the project is, as of mid-August 2018, going to be implemented. Thus, based on the available sources, the Ethiopian political leaders successfully managed to generate a Third Space of Maneuver via the self-financing rhetoric in terms of several quintessential steps in the overall implementation process and despite the re-negotiating efforts of Sudan and Egypt: the project's design, scope and location as well as the timing of its proceeding.

The complex web of interactions depicted during the analysis, mirrors the contemporary world order that is shaped by shifting alliances, and the emphasis and relevance of regional engagements. For instance, the analysis showed the simultaneous involvement of financial institutions, such as the World Bank, in different processes (legal, financial) on various levels (international, regional) and the subsequent limitations for the bank's positioning regarding the Grand Ethiopian Renaissance Dam. The actions of the Ethiopian political leaders showed the relevance of the possibility to frame and promote a specific prestige project on each of the various levels (national, regional and international level) in a certain way that is beneficial for the implementation process, which is enabled by modern communication tools.

The author of this thesis tried not to turn a blind eye on the leaders' top-down leadership. In contrast to many scholars, it tried to understand these humans as products of their time, instead of simply labelling them as authoritarian. While facing the ambition and challenge of fulfilling their visions and promises, they had to cope with various layers of colonial legacies and respond to the rules of the global economy and of geo-politics. The thesis exemplified the strong visions of the first generation of African political leaders and explained their behavior in negotiation processes, their radicalization or softening according to their willingness of making political-ideological compromises. It also showed how they have been influenced by conferences, such as Bandung, that offered a platform for not only developing broader visions but concrete political tactics. Since the Grand Ethiopian Renaissance Dam (GERD) serves as a symbol for nation-building, which is linked to a Neo-Pan African initiative, it indicates the continuing struggle for unification, identification and emancipation on the African continent. This can be easily overlooked when not considering the domestic policy agenda beyond economic and developmental needs.

The implementation strategies were discussed according to the various project levels. The analysis not only emphasized that these levels coexisted but how they influenced each other. This occasionally challenged the methodological procedure of the thesis. In the first two case studies, elements of the planning process (national level) were lifted to the level of financial negotiations (international level) as the projects' design and feasibility study had an impact on the financial negotiations. This also illustrated the influence and incentives of international/foreign actors. The legal negotiations of the Aswan High Dam could be well analyzed in a separate chapter after discussing the financial negotiations,

although both processes took place at the same time. This is explained by the fact that the actors involved, the Ethiopian and the Sudanese delegates, were negotiating without the steady influence of other actors. The World Bank interfered only when demanding for a water-sharing agreement as a condition for advancing the dams in Egypt and in Sudan. In contrast, the interactions on the regional level of the Grand Ethiopian Renaissance Dam (GERD) were more complex due to the legacy of the "1959 Nile Water Agreement", the evolution and increasing relevance of international law, human rights and certain norms, the linked establishment of forums, such as the Nile Basin Initiative (NBI), that acted as a safeguard of these values and norms and the dual function of the World Bank as a financer and mediator. Thus, when contrasting the regional level of the Aswan High Dam and the GERD, the various developments and changes in paradigms and perceptions that took place over the past 60 years are illustrated by a single concrete phenomenon.

In the case of the Grand Ethiopian Renaissance Dam (GERD), the financing of the project was an ongoing process, whose outcome was uncertain and needed to be followed up. Thus, this process paralleled the whole planning process (national level) resulting in the fact that both processes needed to be discussed on the "international level". Here also the renegotiation attempts by Egypt and Sudan were essential and needed to be discussed, indicating the regional dimension of the "international level". Likewise, the engagement with Ethiopian citizens (national level) played already a role for the "international level" since Ethiopians in the country and abroad were financially supporting it. This shows that the direct engagement of Ethiopians within the country and abroad as well as the engaging, disengaging and re-engaging with various actors throughout the multiple negotiation processes, ultimately challenged the idea of analyzing the different project levels one by one. They did not only co-exist but influenced each other in a multi-directional way. Thus, the analysis portrayed rather several transnational levels or a single conglomerate.

In general, the argumentation of this master thesis strongly advocates a spatio-temporal approach for writing global history as the focus on historical entanglements and their relevance through time has clearly emphasized the entanglement between the dimension of space and time itself. The dimension of time pointed the research and subsequent analysis in the direction of tracing parallels and similarities and thus of identifying signifiers and incidents, which shaped future phenomena. Thus, if the analysis would have solely paid attention to the spatial dimension, the relevance of the Tennessee Valley

Authority (TVA) for the three projects in the African states, the re-occurrence and legacy of a handful of actors, such as the companies "Salini Impregilo" and "Kaiser's" and individuals like H.T. Cory, and the relevance of the Aswan High Dam for the origins of the Grand Ethiopian Renaissance Dam (GERD), would have remained obscured.

This thesis has illustrated the strength and relevance of an interdisciplinary approach. As entanglements relate to uncovering cross-border transfers, connections and interferences, an analytical tool was applied that targets specific human actors and helped to assess their agency and how their interactions shaped these entanglements. The analytical framework was essential to concretize and channel the analysis when paying attention to concrete figures and their interactions. Hence, the thesis applied a comprehensive approach as it combined a vertical, a horizontal and a dynamic element for its methodology.

It conducted a continuous embeddedness content-wise by not only assessing the three cases in relation to their national context but also the interplay between domestic and foreign policy agendas. By drawing mostly on existing literature but also on selected primary sources, this master thesis contributed to the existing scholarly work by re-interpreting the case of the Aswan High Dam and the Akosombo Dam from the perspective of the agency of the respective political leaders and not in relation to a single context. It assessed the agency in relation to a certain nexus that considered the modernization paradigm, the opportunities in the Cold War and the struggles for decolonization of newly independent countries likewise. Thus, it highlighted how the projects originated and how they have been advanced instead of focusing on their impact as many other scholars have done. Additionally, it highlighted the relevance of entanglements between the two projects in terms of financing, the connections with former projects and with - potential - future projects (the planned Tanzanian project). In terms of the Grand Ethiopian Renaissance Dam (GERD), the thesis relativized the strong scholarly emphasis of the project's meaning for regional affairs by structuring the various processes according to each project level and paying equal attention to the other levels.

This thesis has made a conceptual contribution with the introduction of the concept of a *Third Space of Maneuver*, which helps to assess agency in view of a certain geo-political context. Insights have been gained from combining it with the conduction of a continuous contextualization and the focus of tracing entanglements. Thus, the thesis contributes in a methodological sense to the question of which approaches to apply when studying

globalization processes in a sophisticated and structured way by presenting their complexity and historicity in a cohesive and plausible way.

The relevance and actuality of this master thesis and its findings for policy-making in the context of large dam projects is as well striking. As indicated by the nexus shaping the urgencies and drivers of the 21st century, it can be assumed that conflicts on scarce resources, such as water, land and finite energy resources, will increase. As a reaction the plan of building hydropower generating dams in countries with an as-yet less tapped hydropower potential will remain on the political agenda and the topic might even increase in relevance. Western advocates of smaller projects that promise a more sustainable outcome due to a certain type of option assessment and project management will have to consider that the promotion of a large dam is not only based on the actual needs and domestic agendas of these countries but also on specific political interests. As is evident by the findings of the World Commission on Dam (WCD)'s report and the huge body of literature, this fact is well-known. However, this thesis has tried to also assess the awareness of political leaders of their country's history of water sector development, its meaning and former courses of direction, as well as the symbolic value of preceding projects, stimulating the desire to step in their footprints to use a single project to target manifold political interests. The challenge of finding an adequate and appealing replacement that serves the actual purposes of a massive dam is even more emphasized, and so is the need to truly study the history of this contemporary phenomenon.

Apart from these contributions, the shortcomings of this thesis need to be discussed. First, the presentation of various layers of contextualization bears the risk that they are perceived as too simplistic. However, this approach corresponds to the thesis' aim of portraying various overlapping processes, structures and dynamics instead of discussing few selected aspects. Due to the limited scope of this thesis and the ambition to consider three case studies, the analysis of each case concentrated on relevant key events and thus summarized the implementation process. This bears the risk of simplifying certain aspects. However, other scholars have already discussed several aspects of each case study in length, while this thesis' framework clearly directed the analysis' levels and foci. Since the implementation of the Grand Ethiopian Renaissance Dam (GERD) is not (yet) finalized, and since several changes in leadership in Ethiopia and in Egypt occurred (which caused changes in actions), and since the possibility of a Third Space of Maneuver needed to be thoroughly argued, the discussion of the third case was more detailed.

The presentation of a "third way" in the Cold War context does not constitute a novelty but rather served as a conceptual orientation for framing a "third way" in the ambiguous contemporary world order. One might argue that the current world order does not provide a binary ideological confrontation between two fronts as other financial actors, such as the European and African Development Bank, and other emerging players in the international dam industry, such as India and Brazil, need to be considered[955]. They might again differ in their stances regarding the *new international standards* and the *vision of state sovereignty*, indicating a continuum or a scale rather than a dichotomy. However, this thesis emphasized the representative nature of the World Bank and of Chinese actors and their concrete relations to the context of the case study as well as the shifting tendencies. It actually showed the difficulty of establishing an unambiguous framing, which again points at the debate and challenge of how to define the current world order. The findings should encourage further analysts to consider the positions of many actors.

Furthermore, it would be of interest to examine China's long and rich history of domestic dams and to complement this analysis with a project of the 1970/80s. Besides, it appears necessary to reanalyze the case of the Grand Ethiopian Renaissance Dam (GERD) after the dam's completion, while considering then available official or at least additional information on the financing side and to assess the actual perception of the project by Ethiopians. Considering the current political atmosphere, it is as of yet not clear if this kind of information will be accessible and if adequate research can be conducted that would assess critical voices. Furthermore, it would be of interest to contrast the GERD with a massive prestige project embedded in the same nexus. Here, the massive "Grand Inga hydropower project" in the Democratic Republic Congo would be an interesting focus. In case it will be actually implemented, the long-planned project is expected to eventually proceed, as the previously competing consortia - one from China and one from Spain - followed the government's request to make a joint bid. They are not only in charge of managing the dam but of mobilizing the funds[956]. This strategy has the potential for generating a different Third Space of Maneuver by the Congolese government. Another case could be the "Lesotho Highlands Water Project", a bi-national project between South Africa and Lesotho, that aims at sharing the benefits of transboundary water resources[957].

[955] Adams 2012: 14f.
[956] Clowes, *Bloomberg*, 13.06.2018.
[957] Ryan 2015: 245.

Annex

Annex 1: Map of the Eastern Nile Basin

Source: Yale Environment E360 2018.

Annex 2: Map of the Volta River Basin

Source: Crain 2018.

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