Small is Beautiful but Not Trendy: Understanding the Allure of Big Hydraulic Works in the Euphrates-Tigris and Nile Waterscapes

Hussam Hussein[1]*, Ahmet Conker[2], Mattia Grandi[3]

[1] Department of Politics and International Relations (DPIR), University of Oxford, Manor Road, OX1 3UQ
[2] Yildiz Technical University, Department of Political Science and International Relations, Istanbul, Turkey
[3] Scuola Superiore Sant'Anna, Piazza Martiri della Libertà 33, 56127, Pisa, Italy
* Corresponding author email: hh.hussam.hussein@gmail.com

Abstract

The number of massive hydraulic infrastructures such as large-scale dams, huge hydropower plants, and broad irrigation networks has increased to an unprecedented level during the 20th century. While the trend has recently slowed, building giant water infrastructures is still an utmost priority in many parts of the world across state elites. Informed by insights from major transboundary waterscapes - the river basins of the Euphrates-Tigris and the Nile - this paper analyses how states´ elites justify their hydraulic mission, finding that four distinctive discursive practices are efficiently used in the case studies: securitisation, opportunisation, de-politicisation and framing.

Keywords: Middle East and North Africa; Hydraulic Infrastructures; Water Policy; Hydraulic Mission; Hydropolitics

1. To whom are huge dams necessary?

The number of large-scale hydraulic infrastructures such as dams, hydropower plants, and irrigation canals, has dramatically increased during the second half of the 20th century. Notwithstanding a new global discourse informed by the concept of sustainable development, which is recently promoting the idea that small-scale water infrastructure, e.g. micro dams, are beautiful as they are more sustainable (Zarfl et al., 2015), huge dams are still deemed necessary. Large dams are often justified over multiple small dams because of economies of scale (Blanc and Strobl, 2014) – despite issues of sustainability[1], the appeal of 'big dams' persists (Han and Webber, 2020). A fascinating example comes from the Rogun Dam in Tajikistan. When technical experts and international consultants suggested that the ideal height of the prospected Rogun Dam should have been 285 meters instead of the 50 meters higher original plan, the Tajik ruling elites dismissed the suggestion and kept the original height initially foreseen (Menga, 2015: 484).

Recent literature has been exploring the question of why large hydraulic projects are being constructed (Obertreis et al., 2016). Nevertheless, what is missing is a clear understanding of the ways in which state elites justify and legitimise such projects. This paper identifies the different strategies that state elites deploy to legitimise and justify megaprojects. In other words, this paper portrays an analysis of state claims over the necessity of huge investments in large hydraulic projects, with a focus over specific tools used by state elites. It does so by looking at the Euphrates and Tigris and at the Nile waterscapes – with a particular focus on Turkey and Ethiopia -, as both basins are the major transboundary waterscapes in their respective region, and both countries have recently experienced an expansion of large hydraulic projects. A further aspect for comparison is associated to the presence in both countries of separatist movements

[1] The extent to which small dams are more sustainable depends also on the location, ecosystems, and on one's definition of "sustainable".

in the areas of dam building. Moreover, Turkey and Ethiopia are related by their geographic position in their respective basins, being both upstream countries. Thus, this study empirically examines the ways in which two upstream countries behave concerning the realisation upon justification of large hydraulic works.

2. Guiding concepts and methods

2.1 Key concepts

The term waterscape allows consideration of the water body together with the society with and within which it is deeply intertwined (Swyngedouw, 1999). The term "state elites" refers to key decision-makers, e.g. politicians, top executives and officers, lobbyists and pressure groups, as well as state water bureaucracies (hydrocracies). This paper adopts Mollinga´s (2001: 735) definition of water politics as the "contestation over water resources planning and use". He focuses on the domains in which the political contestation takes place and identifies four levels of water politics: hydropolitics referring to inter-state level, the everyday politics of water, the politics of water resources policies and projects, and finally the global politics of water (which at that time the author considered as an emerging domain of water politics). Haftendorn's (2000) analysis shows that water conflicts may arise also from beyond water scarcity issues, for instance for water navigation, water quality and relative distribution of water, issues that could arise also within a water abundance situation. Hydraulic infrastructures are political too: big hydraulic infrastructures such as dams, hydropower plants, irrigation networks and so on are often at the centre of the political contestation among stakeholders. It is no coincidence that as the number of dams has proliferated across the globe, water issues have become a more salient challenge in international relations. Dams not only influence inter-state relations at the transboundary water settings, but also other domains of water politics. This paper makes use of four concepts: de-politicisation, securitisation, opportunisation, and framing.

When a politicised issue has become a non-politicised issue, then we can talk about **de-**

politicisation. De-politicisation also reflects a desire to remove political gridlock, which has inhibited any common technical analyses. If an issue is regarded as non-politicised, this means it is not made an issue of public debate and decision (Buzan et al. 1998). In water related issues, de-politicisation means prioritising the 'neutrality' of technical and managerial 'objective' strategies by "silencing alternative voices and visions" and relegating the decision-making process to technical experts rather than open to the public debate (Hussein and Grandi, 2017: 797).

Securitisation is among the most common discursive processes implied by state elites. Regarding water infrastructures, two main ways of securitisation apply. The first way of securitising is connected with the economic wellbeing of the country, insofar large hydro-project often bring in themselves the promise to generate extensive amounts of hydropower and to irrigate vast lands, both of which supposedly contribute to generate revenues, directly or indirectly, for the state. Therefore, they are securitised as they help enhancing the economic security of the nation. The second way of securitising the projects is carried out through strategic links with other issues that are portrayed as security threats. The projects are considered by the ruling elites as remedies to establish territorial integrity and to curb or eradicate ethnic secessionist, autonomist aspirations. Moreover, as noted by Warner (2012: 247), this is twofold, as "securitised non-water issues may spill over into water security issues. Indeed, due to the securitised nature of water relations in the basin, non-water issues easily became securitised." Securitisation of megaprojects is not only conducted by those promoting them, since those opposing megaprojects often conduct (counter-) securitisation moves, too (Conker, 2014). The civil society networks often claim megaprojects pose an existential threat to flora and fauna of the environment in which they are built or to the cultural and historical heritage and to the local societies living in or around the project sites (Atzl, 2014). Finally, states often counter-securitise other riparian states' planned megaprojects.

Another way of justifying megaprojects is through **opportunisation**. Opportunisation is a particular social practice like securitisation. Accordingly, actors are not only driven by "threat" (inspired by fear) but also by "opportunity" (inspired by desire). For instance, when a country considers particular hydraulic works as a strategic tool to enhance its regional influence, it may tend to opportunise the project, provided that it has the necessary power sources to its disposal. Warner (2004) argues that if an actor sees an opportunity to achieve higher goals, the opportunity logic becomes a governing behaviour, driving the behaviour of that actor. Therefore, "security risk is not just a 'threat' (inspired by fear) but also an 'opportunity' (inspired by desire)" (Warner, 2004: 10). Warner labels it as "opportunitisation. Accordingly, actors' behaviour may be informed by the desire to achieve higher goals and make use of perceived opportunities (Warner, 2004).

The last way of justifying megaprojects is through **framing**, by using certain verbal, visual, audio-visual tools. As the definitions of the concept of framing suggest, elites often use frames to justify their choice for megaprojects. For example, megaprojects are often portrayed as a symbol of state progress and national pride within the nation-building strategy of the discursive elites. Likewise, megaprojects are often linked with historical claims or with traces of a flourishing ancient past. For example, hydraulic projects are portrayed as symbols for "shedding of the colonial past" (Biswas and Tortajada, 2001: 11) or they are considered as modernising symbols that connect the glorious past with a promising future (Kaika, 2006). Finally, it is worth noting that elites do not exclusively use verbal discourses, but they often imply visuals or audio-visual tools in order to better communicate with their audiences.

2.2 Methodology

The main method of data collection is written documentation, specifically reports and articles from academics, donors, international organisations, and relevant ministries. The second method of data collection is speeches done by key politicians and governmental representatives.

Therefore, the authors have analysed speeches and discourses made by high ranking politicians and have examined institutional documents published by government agencies. Written documentation that resulted to be very useful and on which the authors have relied particularly, given the focus of the paper on understanding the tools used by state elites, are written documentation, speeches, and declaration of governmental officials and institutions, including Turkey's State Hydraulic Works and Ministry of Forestry and Water Affairs, as well as Ethiopia's Ministry of Water Irrigation and Energy (MoWIE), Ministry of Foreign Affairs (MOFA, incl. Diplomatic and Consular services abroad) and the Federal Democratic Republic of Ethiopia's Office of the Prime Minister.

To analyse the data collected, the authors used critical discourse analysis as a research method. This method focuses on the way in which language is constructed and used to shape norms and behavior. This method was chosen as it allows to unfold how language can shape understandings and people' behaviour, observing in this way power relations, interests, and understand why things were framed in one way instead than in another way. This method, which is largely used by the Copenhagen School of critical security studies, builds upon the writings of Fairclough (Wodak and Meyer, 2015; Fairclough, 2001; Bryman, 2016). Critical discourse analysis as a method of data analysis, and the role of speeches and declarations among the data needed, is also due to the role – as seen in the section on the key concepts – of framing. In fact, framing is a useful concept in the understanding of the construction of social realities, as it informs on how people perceive social reality (Hallahan, 1999). Entman (1993: 52) argues that "framing essentially involves selection and salience. To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described." Here, salience refers to the making of "a piece of information noticeable, meaningful and memorable to audiences" (Entman 1993: 53).

3. General context: the reasons for the rise in large hydraulic infrastructures

In industrial modernity, as water has become a vital resource not only for meeting the daily water needs of the world's growing population but also for socio-economic development, authorities started scattering ambitious hydraulic projects across the planet. There has been a sharp increase in the number of water infrastructures during the 20th century. By 1900, there were 600 dams on earth, many of which were ancient water works located in Asia and Africa. By the midst of the 20th century, the number of dams rose to 5,000, only 10 of which could be considered as major dams. By 2000, there were 45,000 dams, 300 of which were 'big' dams. In other terms, 90% of big dams worldwide were constructed in forty years only (World Commission on Dams, 2000; Khagram 2004: 5). The regions of the two case studies are typical examples where state elites conducted large-scale water development projects, which rank high in the governmental agendas and occupy a considerable space in budgetary policies. As way of example, it is worth mentioning here the Ataturk Dam built in the Euphrates River by Turkey, the Egyptian High Aswan Dam on the Nile River, the Al-Tabqa Dam built by Syria on the Euphrates River, or the Iraqi Mousul Dam on the Tigris River.

3.1 Large-Scale Hydraulic Works and the Authority of the State

Extensive literature has showed the link between hydraulic development and state making processes. This study understands "state making" as the process by which a state accumulates power and reinforces its power basis (Jaggers, 1992). In this regard, the hydraulic mission, which legitimises extensive water works, enhances a country´s material capabilities by increasing agricultural production and hydropower generation, as well as its structural power to sustain state control over its territory and foster national unity. Turkey is a prominent example where water resources development is regarded as a proper tool to enhance state making processes (Conker, 2018). Cizre (2001: 232) points out that one of the key elements in Turkey's

national integration process has been state-led infrastructural modernisation since the foundation of the Republic. Infrastructural modernisation was a socio-political necessity particularly in three areas: the railway, motorway and waterways networks (Demir 2001). This was particularly important for the eastern and south-eastern regions of the country, which are located far from the urban centres of the country. One of the architects of the GAP (Turkish acronym of "Güneydoğu Anadolu Projesi"), Ozal (2016) considers the project to be the remedy to those problems. Ozal argues that communication, access and exchanges have remained limited even among the villages let alone between the rural areas and urban centres in the eastern and south-eastern provinces due to the unhospitable physical conditions of the region. The project would not only enhance integration within the regions, but also remedy the socio-economic backwardness that the regions have suffered for centuries.

In the Eastern Nile Basin, a similar logic was endorsed by Ethiopia, not necessarily limited to the water sector. In the early 2000s' the ruling party - the Ethiopian People's Revolutionary Democratic Front, EPRDF- started developing multi-year national development programmes towards the achievement of the Millennium Development Goals (i.e. the 2005-10 Plan for Accelerated and Sustainable Development to End Poverty -PASDEP- and the 2011-2015 Growth and Transformation Plan – GTP). Therefore, the development of massive water infrastructures has been an integral part of the country-wide developmental strategy.

The centralised efforts to preserve the national unity from domestic (e.g. separatists' movements and insurgencies, such as the Oromo Liberation Front – OLF - and the Ogaden National Liberation Front - ONLF) and regional challenges (e.g. the legacy of the 1998-2000 Eritrean-Ethiopian war and Ethiopia's involvement in the endless Somali civil war) showed the nexus between hyper-nationalism and state-building in the exercise of ethnic federalism (Lyons, 2019), where the ruling party's insistence over the modernisation of the country played central role.

3.2 Strategic Reasoning Between Water and Non-Water Issues

To respond to domestic challenges, state elites often recur to the strategic linkages between extensive hydraulic development projects and non-water issues. In the Euphrates and Tigris basin, the Kurdish issue is often linked with Turkey's extensive hydraulic development in the basin. The issue of integrating the eastern and south-eastern provinces with the rest of the country has been considered as a major security issues in the eyes of the Turkish ruling elites since the foundation of the republic in 1923.

Similarly, several factors have compelled the Syrian Baath Elites to introduce extensive hydraulic development projects in the Euphrates and Tigris basin in order to keep the stability of the regime. First, when they came to power, the Baath Elites inherited a weak state which mostly consisted of elements of the old regime. Therefore, for the Baath regime it was imperative to allow newcomers into the state apparatus, inclusive from the rural population. Therefore, strong links between the central government and rural areas were promoted: as Hinnebush (2011:14) argues, the agrarian revolution introduced by the Baath Party in the early period sought to incorporate the peasants into the urban centre. In doing so the new ruling elites, most of whom had rural backgrounds, sought to consolidate the new regime's social base. Second, rapidly growing population and internal influx of poor rural population to urban centres have created another big domestic concern for the regime. Therefore, improving infrastructural modernisation was the key element for the regime to establish new centres and to galvanise socio-economic life in the east and north-east regions for easing the population pressure (Seale,1995:444). Therefore, the regime introduced extensive reclamation projects and hydraulic development in the Khabur River (a tributary that is part of the Euphrates) and Euphrates River basins in those areas as a part of infrastructural modernisation. It is argued that the collapse of the agricultural sector has led to influx of population from those areas to urban

centres, which contributed to triggering the uprising in Syria, too (Caitlin & Femia, 2013; Gleick, 2014).

In the case of Ethiopia, the imperative to support industrialisation and development have significantly marked the first twenty years of the new Millennium (Gebresenbet 2014, Cheru et al. 2019). The strong, broad-based growth that Ethiopia had experienced during the last decade (averaging 9.9% a year from 2007/08 to 2017/18)[2] made of the country one of the fastest growing economy globally.[3] Driven by a vigorous strategy of public investments,[4] the country has been registering a rapid economic growth, while achieving at the same time a "tremendous expansion" of infrastructures and social services (UNDP, 2018). During the protracted EPRDF rule under the leadership of Meles Zenawi (1991-2012), the Ethiopian government has invested heavily in education, health, water and sanitation, as well as in the energy, transport, communications, agriculture and social sectors.[5] The expansion of the national infrastructure networks is core to Ethiopia's Growth and Transformation Plan 2014/15-2019/20 (GTP II), "the springboard towards realizing the national vision of becoming a low middle-income country by 2025", which incarnates the government's vision for accelerated growth and economic structural transformation (GTP2 II, 2020: 177). In Ethiopia, the vision for development pairs with the need to harness its national resources, including the large unexploited potential of the country's water sources. With an estimated hydropower potential of 45 GW, Ethiopia has one of the largest hydropower resources on the African continent but at the same time one of the lowest installed capacity (IHA, 2020). In such a context, pursuing the national 'hydraulic mission' (Conker & Hussein, 2019) could not be anything but a fundamental, integral piece to the national puzzle of structural modernisation and development,

[2] From "The World Bank in Ethiopia" (retrieved from https://www.worldbank.org/en/country/ethiopia/overview).
[3] Peter Kagwanja (Kenya's Africa Policy Institute, President), 17 December 2019 (retrieved from https://africacheck.org), building on IMF's World Economic Outlook database.
[4] The public investment rate rose from about 5 percent in the early 1990s to 18.6 percent of GDP in 2011, making it the third highest in in the world (World Bank, 2016).
[5] The average growth rate of Ethiopia's federal budget was 22.4% in the past decade (UNDP, 2018).

achieving also energy security and ensuring access to electricity to those 65 million of Ethiopians that currently do not enjoy it. To this regard, the water-specific discourse in Ethiopia is not exclusive to the hydro-related sectors, but rather aligned with the central government's vision for the country's "Renascence", and with the imperative to use its energy potential (GTP2 II, 2020). Landlocked and poor in extractive resources such as oil and gas, the government has prioritised the expansion of the energy infrastructure[6] for the development of industrial, agricultural and service sectors "so as to position Ethiopia among the lower middle-income countries by 2025" (GTP2 II, 2020: 177). The lion's share of the increase in the national generating capacity is expected to originate from hydroelectric power, which is planned to provide almost 14,000 MW by the end of 2020 (*ibid*.), i.e. 80% of Ethiopia's expected energy capacity. With an estimated generating capacity of 6,000 MW and overall construction costs equal to 40% of the government's total annual operating budget, the GERD thoroughly embodies the strategic implementation route paved by Ethiopian decision-makers to boost the country's modernisation and development.

3.3 Strategic Reasoning Between Water Development and Regional Competition

As found by Hirsch (2016), shifts in regional geopolitics can result in the (re)emergence of projects for the constructions of large dams. First, looking at the case of Turkey, it emerges that the introduction of the GAP has fundamentally changed the sets of relations among the three riparian states of the basin. After the GAP, the downstream riparian states established a front to curb the project. So, the GAP has become a regional issue, increasing regional competition and conflictual relations over the basin. Moreover, given Turkey's powerful position in the Tigris and Euphrates Basin, there is also a strategic reasoning as the GAP strengthens Turkey's regional influence. Turkey has also proposed water exporting initiatives, such as the so-called Peace Pipeline Project and water transfers from Turkey to Israel. While those water initiatives are portrayed as tools to enhance peace and stability in the Middle East, the recipient states perceived them as tools to strengthen Turkey's regional hegemony by creating new upstream-

[6] Both in terms of power generating capacity (from 4,180MW in 2014/15 to 17,208MW by 2019/20) and energy production (from 9,515.27GWH in 2014/15 to 63,207GWH by 2019/20) (GTP II: 179).

downstream dynamics in favourof Turkey. The technical and economic problems also hindered the realisation of those projects (Conker and Hussein, 2019). Therefore, even though those initiatives could have acted as initial steps of environmental peacebuilding (Dresse et al., 2019), they have not materialised due to the lack of trust, absence of political will, and economic costs.

By harnessing water resources for hydroelectric production, Ethiopia aims at providing access to electricity to all its citizens while also becoming the energy hub in the Horn and sell cheap energy all over Eastern Africa. With this mechanism, Ethiopia is affirming its regional leadership through selling electricity. In this regard, the Sudanese stance over the GERD is emblematic: the Ethiopian diplomatic efforts over the last decade have been functional in the rapprochement between Zenawi and al-Bashir, while leading to the Sudanese endorsement of Ethiopia's regional energy strategy (Salman, 2016). The disappointment of the Egyptian elites on the GERD has been apparent since the very beginning. Besides, the hydropolitical context of the Nile River Basin in the 20th Century and the related quest for regional hydro-hegemony have revealed inner complexities, unresolved controversies and a perilous tendency towards unilateral (often uncooperative and unfair, too) conducts by its riparian members (Cascão, 2008).

4. Discussion: How to make it happen: tools to justify big hydraulic works

This paper identifies the following tools used by state elites to justify the construction of big hydraulic works: securitisation of water and non-water issues; dynamics of opportunisation; de-politicisation; and symbolic framing.

4.1 Securitisation of water and non-water issues

Downstream riparian states may deploy securitisation of water resources. For instance, this may be the case when upstream development projects pose an existential threat to existing or future downstream development projects. For example, when the GAP was introduced, the Syrian

ruling elites immediately pointed at the project as an existential threat, adopting a variety of coercive and bargaining power tactics to curb the project. Likewise, when the Syrian government completed the Al-Tabqa Dam, the impounding of the dam caused a major diplomatic crisis between the mid-stream Syria and downstream Iraq, which brought the parties on the verge of war (Yetim, 2006; Bari,1997). Also, large scale water resources development can be securitised for domestic needs, as in the case of upstream development.

Concerning the Euphrates and Tigris basin, securitisation of large-scale hydraulic development is clear. In Turkey, the GAP is considered by the ruling elites as a strategic tool to deal with the Kurdish issue. The project is portrayed as a policy initiative to tackle the secessionist tendencies, helping therefore to maintain the territorial integrity of the country. Various, often conflicting, narratives of the Kurdish issue range from visions that consider the issue as human rights-related to others that focuses more on the impact of terrorist activities supposedly associated with the Kurdistan Workers Party (PKK-Kurdish acronym of "Partiya Karkerên Kurdistanê") (Bilgen, 2019). Across these narratives, one recurrent theme is that the root cause of the Kurdish issue stems from the socio-economic backwardness of the region (Bilgen, 2019; 2018, Çarkoğlu and Eder, 2001). According to this perspective, Turkey's extensive hydraulic development projects, then labelled as the GAP, would be a strategic tool to tackle the Kurdish issue by addressing those socio-economic problems of the region. Elites including high-ranking bureaucrats, politicians, ministers, often stated this logic in their various statements (Bilgen, 2019). During the 1980s and 1990s the resolution of the Kurdish issue was equated with tackling with the PKK; and the GAP was regarded as the socio-economic dimension the struggle. However, the so-called Kurdish Opening process initiated by the government in 2009 represented the change of mentality in dealing with the Kurdish issue. It prospected democratisation and human rights-centred reforms. Yet, the GAP continued to be the economic side of the Kurdish Opening process. Besir Atalay, the minister of Internal Affairs

at the time and the person who executed the Kurdish Opening, stressed in a speech to the National Assembly that while the government would have continued to take further steps in human rights reforms and democratisation, simultaneously it would have also continued to take the necessary steps to deal with socio-economic problems and infrastructural problems. In this regard, Atalay states that the government was committed to finalize the GAP by 2013 (Atalay, 2009). Therefore, the GAP Action Plan (2008) that prospected the revitalisation of GAP, was considered as the economic leg of the Kurdish Opening process (Sönmez, 2012).

In Syria the Baath elites do not only consider large-scale hydraulic development as an important tool to deal with the country's water scarcity, but it is also considered as a strategic tool to maintain the regime's security. The former Syrian Minister of Industry Nureddin Al-Rifai considered the governmental Euphrates Project as the future of Syria. To Al Rifai, in order for Syria to stand on its feet with a solid economy, it must get its share from the Euphrates River:"there is no other way", he said (Bari, 1977: 235).

The high level of (fluctuating) interaction among the Eastern Nile riparian states over access and use of the river basin water resources draws around Egypt, Ethiopia and Sudan a distinctive hydropolitical security complex (Kehl, 2017). For Ethiopia it is about harnessing the abundant water potential of the tributaries to the Nile for its development; for Egypt it is about preventing the risks of flow reduction at Aswan to meet its national water demand.

The social pressure over the limited water resources in the Nile Basin is expected to increase in the next decades, as population prospects estimate that the people living in the riparian countries will double by 2050, overtaking 1 billion (UNDESA, 2020). Although the largest proportion of population within the basin is currently rural, urbanisation is expected to grow, likely increasing pressure on municipal water systems. In addition, projections on agricultural water utilisation indicate an increase of 60-70% in irrigated zones in the coming decades, contributing to the escalation of tensions among competing water use(r)s. Moreover,

present and future key challenges in the region include extreme poverty and lack of alternative livelihoods for large proportions of the population,[7] high seasonal flow variability in terms of cross-regional water availability, weak resilience to climate shocks and extreme events, environmental degradation, low land productivity and lack of adequate infrastructural management, among others.

Egypt has succeeded in exerting an effective control over the Nile: this is apparent in the data over current uses within the basin, which disclose that 80% of the irrigation water abstraction occurs in Egypt (and 17% in Sudan, leaving only 3% of the overall withdrawals for irrigation to the other riparian states). Remarkably enough, the basin state that mostly contributes to the Nile flows – Ethiopia - enjoys less than 2% of the basin-wide water abstraction from the river, a fact that makes such country the riparian with the largest water deficit in the basin (with almost 45% of the overall basin unmet demand).[8]

By securing relevant water quotas through the 1959 Agreement with Sudan,[9] the Egyptians aimed at substantiating their water ambitions on a legal basis, while at the same time minimising the risk of eventual increased control over the Nile by upstream countries. Nevertheless, for not being part of it, Ethiopia has always contested such Treaty, and opposed Egypt's arguments. The framing of access to water in Egypt as a national security issue is maintained by specific narratives, such as the historic rights acquired through 'prior use' and the 'no-harm' principle, which insist on the refrain of upstream riparian countries from causing 'significant' harm to downstream countries. Ethiopia's perspective, however, is built around the principle of 'equitable and reasonable use' of transboundary resources, thus challenging the presumed unfair distribution of Nile waters, while at the same time asserting that the GERD –

[7] In 2018 the average value of the HDI (Human Development Index) for the Nile Basin countries (0,509) was lower than the average of the entire Sub-Saharan Africa (0,537). See UNDP, *Human Development Indices and Indicators. 2018 Statistical Update*, New York, 2018, UN Development Programme.
[8] NBI 2016, *op. cit.*
[9] Based on an estimated runoff of 82 bcm per year and total losses in 8 bcm, the 1959 Agreement for the full utilization of the water of the Nile allocated an annual quota of 55.5 bcm to Egypt and 18.5 bcm to Sudan.

by not consuming any water- will not cause adverse impact on downstream states (Cascão & Nicol, 2016).

Whether the GERD currently underway over the course of the Blue Nile in Ethiopia is to be considered as an "international security issue"[10] due to its impact downstream, or rather as the "expression of [Ethiopians'] commitment to the benefit of all the countries of the Nile Basin"[11] is among the hard questions around which the debate over the Nile waters issue is nowadays articulated (Wheeler et al. 2016). What is emerging is that reductions of water supply downstream cannot and will not occur as a result of the GERD as it is physically impossible; there is only temporary risk of shortages during the filling; any long-term effects downstream would therefore be due to Sudan developing and diverting more water.

4.2 Opportunisation

There are different aspects of opportunisation patterns concerning Turkey's hydraulic projects. First, it would be inadequate to understand Turkey's large-scale water initiatives as strategic tools to meet the political, social and economic needs at domestic level. They also serve as strategic tools to increase influence at the regional level. In this regard, apart from the GAP that has obvious regional ramifications, the Turkish government has proposed or initiated other massive water initiatives such as the Peace Pipeline Project and Peace Water Projects from Turkey to Cyprus at the regional level (Conker and Hussein, 2019). Second, such projects are regarded by the state elites as important elements for Turkey's socio-economic progress. For example, state elites regarded the GAP as the messenger of Turkey's coming golden age (Demirel, 1994). For instance, shortly before the completion of the Ataturk Dam, the crown project of the GAP, Turgut Ozal declared that Turkey is on the threshold of unprecedented development attempts both at regional and national level (Ozal, 2016). Finally, the large

[10] Mohamed Abdel Aty, Egypt's minister of water resources and irrigation, quoted in: *The 'water war' brewing over the new River Nile dam*, BBC News, 24 February 2018.
[11] M. Zenawi, former Ethiopian PM, during his GERD's launching speech in April 2, 2011.

irrigation and hydropower potential of the Euphrates and Tigris basin is emphasized in the pro-state narratives. For example, Ozal argues that while physical conditions in the region have created obstacles, there are also big opportunities. He stresses that the region has incredibly fertile vast irrigation areas that needs irrigated farming. Ozal argues that when the Ataturk Dam and Urfa Tunnels are completed, Turkey's agricultural production will double. Furthermore, According to Ozal, the God gifted raging rivers in the region are waiting for infrastructure for hydroelectric power production (Ozal,2016).

In the case of Ethiopia, dynamics of opportunisation with respect to the national hydraulic mission under implementation occur. Once completed and fully operational,[12] the GERD will become the largest dam in Africa:[13] by generating 15,000 GWh per year, the 4.8 billion USD project is expected to substantially increase Ethiopia's energy production and to "triplicate Ethiopia's consumed energy and generate €2 billion/year from energy export".[14] Started in 2010, when the EEPCO (Ethiopian Electric Power Corporation) awarded the construction contract to Salini-Impregilo industrial group, the GERD project (launched by former Ethiopian PM Meles Zenawi, who formally laid its foundation in April 2011) emerged somehow as a surprise in the complex geopolitical balances of the region. Nevertheless, it represents an integral –even if prominent- section of a broader stepwise water policy that immediately became the flagship project of Ethiopia's strategy in the hydropower domain, and well beyond. Indeed, in the governmental narrative the massive infrastructural project is expected to spur the national development by contributing to the generation of hydroelectricity and its distribution within as well as outside the Ethiopian borders.

[12] Originally expected to become operational by the end of 2018, the GERD is reportedly between 70 and 80 per cent complete (at the time of writing, summer 2020). According to Ethiopian governmental sources, the dam started filling operations in May 2020.
[13] The largest (existing and operational) hydropower plants in Africa are currently the Aswan Dam in Egypt and the Cahora Bassa in Mozambique (with installed capacity of 2,100 MW and 2,075 MW, respectively).
[14] Quoted from the Salini-Impregilo's project webpage.

According to most analysts, the GERD "is a 'game changer' that challenges Egypt's long-standing hegemony over the Nile basin" (Tawfik, 2015). However, it did not emerge from a vacuum, since Ethiopia's ambition of harnessing its natural resources potential - especially for energy generation - is rooted in its modern history. The GERD, as well as other on-going hydraulic mega-projects, such as the Gibe system in the lower Omo Valley, aims at reducing the existing gap between the actual installed capacity (4.3 GW in 2017) and the national electricity generation potential of 45 GW. With the objective of reaching an installed capacity of 17.3 GW by 2020 (and 35 GW by 2037) the Ethiopian government is promoting its developmental agenda in the water sector, which already accounts for the generation of 86-88% of the country's installed energy capacity (GTP2 II, 2020).

4.3 De-Politicisation of the Hydraulic Works

Another discursive act implied to justify hydraulic works is de-politicisation. According to Bilgen (2019: 401-402) there are two main understandings of de-politicisation in the literature. First, de-politicisation is considered as a condition that refers to the entire society (Bilgen,2019:401). For instance, promoting de-politicisation via economic arguments can be considered in the first respect of de-politicisation. Second, de-politicisation is deployed by emphasising the need for technical rather than political evaluations, emphasising the field-specific technical knowledge required for sectors such as natural resource management, development, interventions related with health, immigration and so forth (Bilgen, 2019: 402). This paper mainly focuses on the latter aspect of de-politicisation. Accordingly, as in the case of securitisation, discourses justify large-scale hydraulic development projects by emphasising their technical and/or economic necessity.

Considering the water resource development in Turkey, there are several aspects of this de-politicisation process. First, Turkey's water resources are unevenly distributed across the

country; therefore, there is a need for water transfers. Second, hydropower is regarded as a clean energy source, which to some extent compensates Turkey's energy deficit. These considerations are often pointed out by the state elites. For instance, Eroglu (2014), the former minister of Forestry and Water of Turkey and the head of the DSI, states "Turkey is neither a water rich country nor a water poor country. Since have erratic seasonal fluctuations in precipitation, we need to store water in the rainy seasons, and we need to use it in less rainy periods." Due to these reasons, according to Eroglu "Construction of dams and ponds is a *"technical"* necessity. Dams and ponds are vital for tackling with drought. Dams are not built for fun. They are built due to the climatic and geographical necessities. Therefore, we will continue to build dams" [emphasize added] (Eroglu, 2014; Eroglu 2017).

The construction of the GERD in Ethiopia brings with it controversial questions about the impact during the different phases on the one hand, and its benefits on the other: the analysis of the trade-offs between adverse impact and expected benefits of the infrastructure, both within and beyond Ethiopian borders, stands at the core of the debate. The impact of the GERD is and will be multi-dimensional, thus covering a heterogeneous range of domains. Is it, then, appropriate to explain the Ethiopian decision for building water infrastructures by ways of mere technical reasoning? The outcomes of an increased state interventionism in the region, deemed necessary to convey the needed resources to initiate such hydro-projects, have often resulted in an enhanced legitimisation of the political leadership of the ruling parties to a level that it now "overlaps with state administration at all layers" (Fantini, 2013: 4), tightening the linkages between the market and the state and gradually excluding competing alternative actors from the state-building process. The mission of achieving political stability and enhancing the capacity of the state in managing the process of development has strengthen the role of the ruling party. In many areas of the MENA region and its neighbourhood, the hydraulic imperative is an integral part of the developmental strategy of the government, which not only serves the

national interests of boosting electricity production, reducing the national vulnerability to climate variability and attaining the role of future regional energy hub. Indeed, it also legitimates the authority of the ruling party, provides the central authorities with more grips into the local affairs of the peripheries, and fosters nationalism through the promotion of the idea of new forms of induced nationalism through hydropower (Verhoeven, 2013). As put by the former Ethiopian PM Meles Zenawi, "[i]n the end development is a political process first, and a socio-economic process second" (Zenawi, 2012).

4.4 Making Symbolism: framing "water imaginaries" along the waterscapes

This category has been identified as some discourses may neither be considered as securitisation/opportunisation dynamics, nor regarded as strategies of de-politicisation. Symbolism is a tool used by ruling elites to strongly support the development of large hydraulic infrastructures. Symbolism can be promoted, for instance, through the choice of specific nomenclatures for dams and infrastructures. In the Turkish context, there are visuals such as banknotes, newspaper advertisements etc. that support the construction of huge hydraulic projects. There is also a metaphorical language use that serves to deliver the message. For example, GAP is defined as not only a project to drill the mountains, but it is a project that drills the eras to emphasize the importance of GAP in Turkey's future (Kadioglu, 2011). Or certain objects are metaphorically linked with dams. Dams are portrayed as "bracelets that beautifies the river", or as "handcuffs that enable to harness the watershed" (Yildiz, 2009). For example, President Erdogan describes the recently completed Ilisu Dam project as a "precious collar jewellery" that we put on the Tigris in the recent inaugural ceremony of the Ilısu dam (Erdogan 2020). Moreover, the Turkish ruling elites have been portraying the GAP project as the greatest state project initiative ever in Turkey's history. The flag project of the GAP is the Ataturk Dam, named after the founder of the republic. In this, regard, the former Turkish President, Suleyman Demirel, portrays the GAP as a symbol of the "determination of the nation" (Demirel 1994: 3).

According to Demirel, GAP is Turkey's masterpiece project, which gets its power from the Turkish nation itself. GAP is a symbol of "the progress of Turkish technique, engineering and labour" (Demirel 1994: 3). Similar symbolism can be found in Turkey's international water initiatives. For instance, the Turkish government proposed the construction of water pipeline from Ceyhan and Seyhan Rivers, located in the southern part of Turkey, to the Middle East countries in the 1980s. The proposed pipeline named as the "Peace Pipeline project" which manifests Turkey's efforts to promote an enhanced peace in the region. Likewise, the Friendship Dam, a joint dam project between Turkey and Syria on the Orontes River, is considered as the symbol of the Turkish-Syrian political rapprochement in the noughties (Conker and Hussein, 2020).

In sum, the rich empirical evidence derived from the Euphrates and Tigris and the Nile waterscapes suggests that state elites use four discursive processes - namely securitisation, opportunisation, de-politicisation and framing - to justify megaprojects in place of smaller alternatives. In the case of securitisation, megaprojects can be securitised for their socio-economic values. Furthermore, state elites may strategically link megaprojects with already securitised non-water issues. In such cases, those proposed projects are portrayed as strategic tools to deal with a certain non-water issue that poses a threat to the state in different aspects. In the case of opportunisation, it is not threats that drive state elites to build megaprojects, but it is the sense of opportunity those projects brings about. Considering riparian positions, the empirical evidence derived from the cases suggests that the upstream riparian states frequently tend to use dynamics of opportunisation. In the case of de-politicisation, state elites tend to portray water resources development as a technical and hydrological necessity for development. Patterns of de-politicisation are more visible in domestic water politics than in transboundary (inter-riparian) hydropolitics. There is often a "discursive battle" between state agencies and non-state entities that oppose such megaprojects from different reasons such as the environmental, cultural, historical or social adverse impacts of megaprojects. While the civil society networks opposing the megaprojects securitise them on the basis that they pose a threat to physical/social environment or cultural/historical heritage, those supporting them emphasise the technical and hydrological necessities. Finally, water imaginaries are used by the state elites

to justify and legitimise megaprojects. Here, both verbal (using metaphorical language) and non-verbal (visuals, audio-visual materials) framings are used to reach out the audience. Those imaginaries help convey the message to the public.

FIGURE 1: Old One million Turkish Liras: The illustration of the Atatürk Dam and Resevoir on the backside of the banknotes. The picture is retrieved from https://www.gittigidiyor.com/koleksiyon/7-emisyon-1-milyon-tl-j-harfi_pdp_522696754

FIGURE 2: National Bank of Ethiopia, 50 dollars, ND (1966), Emperor Haile Selassie, Koka High Dam, available at:
http://www.banknote.ws/COLLECTION/countries/AFR/ETH/ETH0028.htm

FIGURE 3: Ethiopian sim card illustrating the GERD project (Fantini, 2017)

Water imaginaries comprising popular culture, proverbs, songs, prayers, etc. play a central role in framing the water debate at national and regional levels. For instance, visually there are generally posters across the countries where large dams are constructed showing the dam, and such designs are also represented on souvenirs, notes, and even mobile phone sim cards (see Figure 1, 2, and 3 for examples from Ethiopia and Turkey). For instance, Ziad Fahmy (2011) explains that "to many Egyptians, the Nile is so intimately intertwined with the very notion of Egypt that it is often used to represent the nation in songs and popular culture". Fahmy showed how historically music, popular media, and culture had a pivotal role amongst Egyptians to construct and negotiate a national identity, and the Nile had a key role in forging and uniting the country in an Egyptian identity. Recent literature showed that similar dynamics are present also in Ethiopian oral traditions; Damtew (2016: 1) underlines that "music, proverb, poetry and sayings are the cultural instruments which bring together Ethiopian societies and one of Africa's main rivers, the Abbay or Blue Nile." Overall, the symbolic meaning of huge infrastructures is evident all across the country in Ethiopia, and the nexus with nationalism and populism is evident across different sectors (e.g. railways, speedways, and dams). The specificity of the water-theme here is particularly relevant when it comes to works over the Blue Nile, since the topic inherits all the long-standing quarrel with Egypt (where issues of water access/control merge with issues of religion, colonial powers, regional influence, etc.). Another narrative present in Ethiopia is the one that flows from the inner nature of the 'developmental' state, with its sort of hermeneutic role in promoting development across the country. Moreover, in the Ethiopian case center role is played by the imaginaries around the water-life nexus, that is the centrality of water for biologic life, which plays central role in the apology of huge hydraulic works (especially in semi-arid, water-scarce areas).

5. Conclusions

This paper has reviewed the literature on why states' elites promote megaprojects, investigating the strategies and tools used by states' elites to promote such projects. The guiding question was: what are the tools used by states' elites to justify and legitimise large hydraulic projects?

We found that megaprojects are generally considered as strategically important. First, large-scale hydraulic works are the main element of the state's hydraulic mission to extend its power and control at domestic level as well as to project its influence abroad. Second, big hydraulic works also enhance the national pride of the country as the dam have symbolic power (Menga, 2015). Third, while big hydraulic works influence social and political relations, they are also shaped by political, social and cultural conditions (Swyngedouw, 2009). In other words, the political context matters (Hussein and Grandi, 2015; 2017). There are often strategic reasonings that compel state elites to appeal for building big hydraulic works. For instance, Nagheeby and Warner (2018) show how controlling water resources has become a strategy of the Superpowers – US and USSR - to control the land in the context of Afghanistan. Fourth, this paper also suggests the necessity of considering the economic arguments put forward for or against large hydraulic works, including the economy of scale.

In some cases, domestic determinants can be powerful in compelling the state to build large hydraulic development projects, as in the GAP case. According to this narrative, the emergence and the continuation of the conflict with the PKK is mainly due to the socio-economic backwardness of the region (Bilgen 2018:101). Big hydraulic works do not only have an impact on the domestic scale, but they also influence the trans-national and international levels (Menga, 2016). National hydraulic missions, in which big hydraulic works are often justified, may be considered as a useful foreign policy tool by the state (Conker and Hussein, 2019). For example, upstream riparian countries tend to consider domestic megaprojects as strategic tools to enhance their regional influence because they can control the flow of water downstream. Such

geopolitical reasoning played an essential role in technical and financial assistance of the United States to less developed regions such as the Mekong, the Nile and the Litani River basins throughout the Cold War (Sneddon and Fox, 2011).

This paper has showed how state elites are deploying different tools - securitisation of water and non-water issues; dynamics of opportunisation; de-politicisation; and symbolic framing - to justify, legitimise, and push forward new water imaginaries, with the goal of ensuring that while small is beautiful, it is not trendy and there is a need for a big hydraulic works both on the Euphrates-Tigris and Nile Waterscapes.

However, further research should explore the unexpected adverse impact of that, i.e. how much the non-permeability of the link authority-big water can be pushed forward before it turns against the authority itself as a boomerang. It would be interesting to investigate whether this is true only up to a certain point (or just in certain cases) and if beyond a certain 'threshold' the direct link authority-large dams do not work anymore. Moreover, more economic analysis on the construction of the dams considered, as well as the economic arguments put forward by the governments, should be explored, as they would provide important nuances and perspectives to the analysis.

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Bibliography

Atalay, B. (2009). *Besir Atalay's Speech in the Turkish Grand National Assembly of Turkey*. The Turkish Grand National Assembly of Turkey Manuscrips Journal: Session 53, (18). Ankara

Atzl, A. (2014). Transnational NGO networks campaign against the Ilisu Dam, Turkey. In W. Scheumann & O. Hensengerth (Eds.), *Evolution of Dam Policies* (pp. 201-228). Berlin: Springer.

Bari, Z. (1977). Syrian-Iraqi Dispute Over the Euphrates Waters. *International Studies, 16* (2), 227-244. doi:10.1177/002088177701600203

Bilgen, A. (2018). A project of destruction, peace, or techno-science? *Middle Eastern Studies, 54*(1), 94-113. doi:10.1080/00263206.2017.1376186

Bilgen, A. (2019). Is Development the Continuation of 'Anti-politics' by Other Means? *Forum for Development Studies, 46*(3), 401-427. doi:10.1080/08039410.2019.1593239

Biswas, A. K., & Tortajada, C. (2001). Development and Large Dams: A Global Perspective. *International Journal of Water Resources Development, 17*(1), 9-21. doi:10.1080/07900620120025024

Blanc, E., & Strobl, E. (2014). Is small better? A comparison of the effect of large and small dams on cropland productivity in South Africa. The World Bank Economic Review, 28(3), 545-576.

Bryman, A. (2016). Social research methods. Oxford university press.

Buzan, B., et al. (1998). Security: A new framework for analysis. Lynne Rienner Publishers.

Caitlin, E. W., & Femia, F. (2013). Climate Change Before and After the Arab Awakening: The Cases of Syria and Libya.

Cascão, A. E. (2008). Ethiopia–challenges to Egyptian hegemony in the Nile Basin. *Water Policy*, 10(S2), 13-28.

Cascão, A. E. and Nicol, A. (2016). GERD: new norms of cooperation in the Nile Basin?, *Water International*, 41:4, pp. 550-573.

Cheru, F., et al. (Eds.). (2019). *The Oxford Handbook of the Ethiopian Economy*. Oxford University Press.

Cizre, Ü. (2001). Turkey's Kurdish Problem: Borders, Identity and Hegemony.

Conker, A. (2014). *An enhanced notion of power for inter-state and transnational hydropolitics: an analysis of Turkish-Syrian water relations and the Ilısu Dam conflict between the opponents and proponents of the Dam.* (PhD Thesis). University of East Anglia,

Conker, A. (2018). "Understanding Turkish water nationalism and its role in the historical hydraulic development of Turkey." Nationalities Papers **46**(5): 877-891.

Conker, A., & Hussein, H. (2019). Hydraulic Mission at Home, Hydraulic Mission abroad? Examining Turkey's Regional 'Pax-Aquarum'and Its Limits. Sustainability, 11(1), 228.

Conker, A. and Hussein, H. (2020), Hydropolitics and issue-linkage along the Orontes River Basin, INEA

Çarkoğlu, A., & Eder, M. (2001). Domestic Concerns and the Water Conflict over the Euphrates-Tigris River Basin. Middle Eastern Studies, 37(1), 41-71.

Damtew, E. (2016). Friend, Stranger, Enemy: Ethiopian Oral Traditions on the Abbay (Blue Nile) River. Ethiopian Renaissance Journal of Social Sciences and the Humanities, 3(2).

Demir, A. (2001). *Su ve DSI Tarihi (Water and History of the DSI)*. Ankara: Devlet Su Isleri Vakfi.

Demirel, S. (1994). GAP Türkiye İçin Altın bir Çağın Habercisidir Gelin Bu Çağı Hep Birlikte El Ele Gönül Gönüle Karşılayalım [GAP is a messenger of Turkey's Coming Golden Age: Let us Welcome This New Era Altogether with Integrity]. *GAP Dergisi [Gap Journal], 4*, 3-4.

Dresse, A., Fischhendler, I., Nielsen, J. Ø., & Zikos, D. (2019). Environmental peacebuilding: Towards a theoretical framework. *Cooperation and Conflict, 54*(1), 99-119. doi:10.1177/0010836718808331

Erdoğan, R. T. (2020). Cumhurbaşkanı Erdoğan, Ilısu Barajı ve Hidroelektrik Santrali birinci ünitesinin açılışını gerçekleştirdi. Ankara Presidency of Republic of Turkey.

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of communication, 43*(4), 51-58. Doi:https://doi.org/10.1111/j.1460-2466.1993.tb01304.x

Eroglu, V. (2014). Kuraklıkla Mücadele İçin Baraj Yapmaya Devam Edeceğiz. Retrieved from https://www.haberler.com/bakan-eroglu-kuraklikla-mucadele-icin-baraj-5664133-haberi/

Eroglu, V. (2017). 1973'ten beri en kurak yıl: Bakana göre üç büyük ilde içme suyu sorunu yok.

Fahmy, Z. (2011). Ordinary Egyptians: Creating the modern nation through popular culture. Stanford University Press.

Fantini, E. (2013). Developmental state, economic transformation and social diversification in Ethiopia. ISPI Analysis, 163(7), 1-7.

Fantini, E. (2017), "Media, science and water diplomacy: a Nile hydropolis?", Blog "FLOWs", available at: https://flows.hypotheses.org/524

Fairclough, N. (2001). Critical discourse analysis. How to analyse talk in institutional settings: A casebook of methods, 25-38.

Gebresenbet, F. (2014). Securitisation of development in Ethiopia: the discourse and politics of developmentalism. *Review of African Political Economy*, *41*(sup1), S64-S74.

Gleick, P. H. (2014). Water, Drought, Climate Change, and Conflict in Syria. *Weather, Climate, and Society, 6*(3), 331-340. doi:10.1175/wcas-d-13-00059.1

GTP2 II, (2020), Yinagre Desie (National Planning Commission), in "Growth and Transformation Plan II (GTP II) (2015/16-2019/20) Volume I: Main Text." (retrieved from https://ethiopia.un.org/en/15231-growth-and-transformation-plan-ii)

Haftendorn, V. (2000). Water and International Conflict. *Third World Quarterly, 27*(1), 51-68.

Hallahan, K. (1999). Seven models of framing: Implications for public relations. Journal of public relations research, 11(3), 205-242.

Han, X., & Webber, M. (2020). Assembling dams in Ghana: A genealogical inquiry into the fluidity of hydropolitics. Political Geography, 78, 102126.

Hinnebusch, R. (2011). The Ba'th's Agrarian Revolution. In R. Hinnebusch (Ed.), *Agriculture and Reform in Syria* (pp. 3-15).

Hirsch, P. (2016). The shifting regional geopolitics of Mekong dams. Political Geography, 51, 63-74.

Hussein, H., & Grandi, M. (2015). Contexts matter: a hydropolitical analysis of Blue Nile and Yarmouk River basins. Social water studies in the Arab Region, 159.

Hussein, H., & Grandi, M. (2017). Dynamic political contexts and power asymmetries. INEA, 17(6), 795-814.

IHA, International Hydropower Association. (2019). 2020 *Hydropower status report.* International Hydropower Association: London, UK.

Jaggers, K. (1992). War and the Three Faces of Power : War Making and State Making in Europe and the Americas. *Comparative Political Studies, 25*(1), 26-63. doi:https://doi.org/10.1177/0010414092025001002

Kadioglu, M. (2011). Dağları değil çağları delen projemizi anlamak. Hurriyet Daily.

Kehl, J. R. (2017). Water security in transboundary systems: cooperation in intractable conflicts and the Nile system. Anthem Press, London, 39-66.

Khagram, S. (2004). Dams and development: Transnational struggles for water and power. Cornell University Press.

Kaika, M. (2006). Dams as symbols of modernization. *Annals of the Association of American Geographers, 96*(2), 276-301. doi:http://dx.doi.org/10.1111/j.1467-8306.2006.00478.x

Lyons, T. (2019). Diasporas and the Transnationalization of African Politics. In *Oxford Research Encyclopedia of Politics*.

Menga, F. (2015). Building a nation through a dam: the case of Rogun in Tajikistan. Nationalities Papers, 43(3), 479-494.

Menga, F. (2016). Domestic and international dimensions of transboundary water politics. Water Alternatives, 9(3), 704-723.

Mollinga, P. (2001). Water and politics: levels, rational choice and South Indian canal irrigation. *Futures, 33*(8-9), 733-752. doi:10.1016/s0016-3287(01)00016-7

Nagheeby, M., & Warner, J. (2018). The geopolitical overlay of the hydropolitics of the Harirud River Basin. INEA, 18(6), 839-860.

NBI - Nile Basin Initiative. (2016). *The Nile Basin Water Resources Atlas*, Entebbe: Nile Secretariat (Nile-SEC).

Obertreis, J., et al. (2016). Water, infrastructure and political rule, Water Alternatives, 9(2).

Salman, S. M. (2016). The Grand Ethiopian Renaissance Dam. *Water International, 41*(4), 512-527.

Seale, P. (1995). *Asad: The Struggle for the Middle East*. London: I.B Tauris.

Sneddon, C., & Fox, C. (2011). The Cold War, the US Bureau of Reclamation, and the technopolitics of river basin development, 1950–1970. *Political Geography, 30*(8), 450-460. doi:https://doi.org/10.1016/j.polgeo.2011.09.005

Sönmez, M. (2012). Devletin cambazlığı ve GAP ilüzyonu. *Perspectives, 3.13,* 16-19.

Swyngedouw, E. (1999). Modernity and hybridity: nature, regeneracionismo, and the production of the Spanish waterscape, 1890–1930. Annals of the association of American Geographers, 89(3), 443-465.

Swyngedouw, E. (2009). The Political Economy and Political Ecology of the Hydro-Social Cycle. *Journal of Contemporary Water Research & Education, 142*(1), 56-60. doi:10.1111/j.1936-704x.2009.00054.x

Tawfik, R. (2015) *Revisiting hydro-hegemony from a benefit-sharing perspective: The case of the grand Ethiopian Renaissance Dam*. Bonn

Topdemir, R. (2009). *Atatürk'ün Doğu-Güneydoğu Politikası ve GAP (Ataturk's Eastern and Southeaster Policies and the GAP)*. Istanbul: TRUVA.

UNDESA (2020). World Population Prospects: The 2019 Revision, retrieved from https://population.un.org/wpp/ on May 8th, 2020.

UNDP (2018). *Ethiopia's Progress Towards Eradicating Poverty*. April 18 -20, 2018. UNDP Ethiopia: Addis Ababa

Verhoeven, H. (2013). The politics of African energy development. *Philosophical Transactions of the Royal Society A, 371*.

Wagerich, K., & Warner, J. (2010). Is Water Politics? Towards international water relations. In K. Wagerich & J. Warner (Eds.), *The Politics of Water*. London: Routledge.

Warner, J. (2004). Plugging the GAP-Working with Buzan: The Ilisu dam as a security issue. Occasional Paper, 67.

Warner, J. (2012). The struggle over Turkey's Ilısu Dam: domestic and international security linkages. INEA, 12(3), 231-250.

Wheeler, K. G. et al. (2016). Cooperative filling approaches for the Grand Ethiopian Renaissance Dam, *Water International*, 41:4, pp. 611-634.

Wodak, R., & Meyer, M. (Eds.). (2015). Methods of critical discourse studies. Sage.

World Bank (2016). *Ethiopia's great run: the growth acceleration and how to pace it.* Washington, DC: World Bank Group.

World Commission on Dams. (2000). Dams and development: A new framework for decision-making: The report of the world commission on dams. Earthscan.

Özal, T. (2016). Turgut Ozal's Opinions Concering the Boradcasting of the TRT GAP. YouTube, Diva Film Limited Company.

Yetim, M. (2006). A Bargaining Framework for Explaining International Water Rights Conflicts. Austin, The University of Texas.

Yıldız, D. (2009). *GAP: Bölgede Ekonomik, Stratejik ve Siyasal Gelişmeler*.(The GAP: Economic, Strategic and Political Developments in the Region) İstanbul: Truva Yayınları.

Zarfl, C., et al. (2015). A global boom in hydropower dam construction. Aquatic Sciences, 77(1), 161-170.

Zenawi, M., (2012), States and Markets: Neoliberal Limitations and the Case for the Developmental State, in A. NOMAN et al. (eds) Good Growth and Governance in Africa: Rethinking Development Strategies, Oxford University Press, 2012, pp. 140-174.