



Research article

Hydro-hegemony, an antiquated notion, in the contemporary Nile River basin: the rise of water utilization in up-stream riparian countries



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ABSTRACT

The longstanding hydro-political history of the Nile River had been characterized by the domination of a single riparian country, Egypt, through its claim of historical and natural right discourse which is essentially not acceptable in modern international water laws. Nevertheless, the Nile upper riparian countries have been experiencing several political and economic changes that could a major reason to promote shifts the status quo. The aim of this paper is to give exploratory and theoretical analysis up on changing the wrong historical claiming of hydro-hegemony in the Nile river basin. Methodologically, the paper is employed general qualitative and theoretical approach as well as exploratory research design. After their independence (except Ethiopia), upstream riparian countries of the Nile River basin have begun to look at the utilization of the shared water resource to meet their respective national development needs. This, in fact, has its own reasons. Among others, most of the riparian countries are currently more politically and economically stable than the past several years. Secondly, the emergence of modern international water laws have contributed a lot in giving an awareness of the rights of riparian countries on shared water resources through its icon principle of equitable and reasonable utilization on trans-boundary water resources. This paper is, therefore, trying to show the invalidity of the historical notion of hydro-hegemony which is basically void in any contemporary international water laws.

1. Introduction

Starting from its originating sources of highlands of Ethiopia in the Eastern part and Lake Victoria in the great lakes' region, the Nile River basin comprises eleven riparian countries [1]. From these, Burundi, Democratic Republic of Congo, Kenya, Rwanda and Tanzania are normally called the great lakes' region while Ethiopia, Egypt, Eritrea, Sudan and South Sudan are the Eastern Nile riparian countries [2]. The major hydro-political contention of the Nile water resource has been remained between downstream (Egypt and Sudan) and upstream (Ethiopia) riparian country. This is indeed because of the hydrological nature of the water flow in the Eastern Nile basin in which 86% of its flow comes from Ethiopia [3].

Throughout history, the Nile water resource has been controlled by the lower riparian countries particularly Egypt and in some extent Sudan. To this part, Egypt, the lower riparian country, has a tendency of claiming exclusive sovereignty over the Nile water resource by ignoring the interests of other riparian countries [4]. Among other instruments of claiming the water in hegemonic approach, the downstream countries mainly Egypt brings the old notion of historical right and the colonial

agreements of 1929 and 1959 these are completely void in contemporary international water laws.

Nowadays, however, the status quo is being changed though not dramatically. This changing status quo has also its own reasons. First, is the emergence of international water law which made void the colonial agreements and historical up to natural rights claimed by the downstream countries. Second, the potential of upstream riparian countries to utilize the water resource as well as their relative political and economic stability [4]. This can be explained as from both equatorial lakes region and Eastern Nile perspectives. In the great lakes' region, riparian countries like Kenya, Tanzania and Uganda, for instance, are trying to utilize the water resource of the White Nile basin surrounding Lake Victoria.

In the Eastern Nile, on the other hand, Ethiopia is commencing to aggressively harness its hydropower potential that showed great commitment to meet the overriding energy demand of its people and neighboring countries [5]. Thus, these activities show the invalidity of hydro-hegemonic tendency in the downstream riparian countries. As part of the objective of this paper and theoretical gap, any unilateral and hegemonic control of trans-boundary water resource in the contemporary world is worthless and void. This is true in the Nile river basin too.

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2. Research methodology

The study is basically employed theoretical review and qualitative research approach as well as exploratory research design. The reason of using theoretical and qualitative approach in the study is because of the nature of it which does not need a standard measure, rather, it needs theoretical assessments on hydro-politics, subjective attitudes, observations, perceptions, options and reflections of stakeholders and respondents. Based on this, the researcher tried to make interviews with key informants from different organizations such as Addis Ababa University, Eastern Nile Technical and Regional Office (ENTRO) in Addis Ababa, Nile Basin Initiative (NBI) and Makerere University. Furthermore, interview was conducted with key informants from the Embassies of the Arab republic of Egypt and Sudan in Addis Ababa, Ethiopia. In fact, the major hydro-political tension is concentrated on the lower riparian countries (Egypt and Sudan) as well as upper riparian country (Ethiopia). Moreover, the researcher also conducted field research as part of this study in Lake Victoria, the area where the White Nile is originated, mainly in Uganda. In addition to the above primary sources, secondary sources were also reviewed from journal articles, books, published and unpublished documents. Therefore, this study in general is exploratory and analytical. It explores mainly the major reasons of declining the notion of hydro-hegemony in the contemporary Nile River basin.

3. Theoretical and analytical results

3.1. The potential of upstream riparian countries to use the Nile water resource

For the past several years, upstream riparian countries of the Nile River have been marginalized from the use of the shared Nile water resources. However, due to the greater demands of their respective people and their relative economic development as well as political stability, these upstream countries have been trying to utilize the water resource of the Nile [6].

Some recent political and hydro-infrastructure developments in the Equatorial lakes region and Eastern Nile basin, and their impacts on the past asymmetrical water use of the Nile water are analyzed next by focusing member states of the East African Community (EAC) in the Equatorial lakes region and Ethiopia in the Eastern Nile sub-basin.

3.1.1. The Equatorial lakes region

After they established the East African Community (EAC) in 1999, Kenya, Tanzania and Uganda, the founding members of this organization, have undertaken various efforts towards regional economic integration and issues pertaining to the development of the Nile water resources addressed [7]. Burundi and Rwanda also joined the organization in 2006 and the scope of water development program in the Lake Victoria region increased. One of the manifestations of this water development initiative is the Lake Victoria Basin Commission (LVBC) which was commenced in 2001 [7].

The other important indicator of water utilization in the region is the Bujagali hydro-power plant which is located along the Nile River in Jinja Uganda (Author's field observation in 2016). It was commissioned in October 2012 and has an installed capacity of 250 MW. Furthermore, there are also planned hydropower projects in Uganda such as Karumawitha with its installed capacity of 600 MW is one of the prospective projects along the Nile River scheduled to improve electricity supply and reliability in the country (interview with senior Ugandan environmentalist at Entebbe in 2016).

3.1.2. The Eastern Nile basin

The Eastern Nile basin is significant geopolitical importance to the Nile's hydro-political relationship [3]. This has several factors depending on explanation of key informants. According to senior environmental expert in the NBI, for instance, the reason why the hydro-political issues

of the Nile are concentrated in its Eastern sub-basin is its hydrological nature in which the water flow of the Blue Nile is higher than the Equatorial region. 86% of the water flow, in fact, comes from this Eastern Nile sub-basin. In addition to this, there is water scarcity which limited in a period of one season and this make high water demand in the basin. Thus, these factors influenced to the downstream riparian countries mainly Egypt which any water project always perceive as their national threat.

Nevertheless, Ethiopia, the major (sole) contributor of the water in the sub-basin, has been starting new plans and strategies of utilizing the water resource in recent times. The Grand Ethiopian Renaissance Dam (GERD) is one of the current indicators of potential utilization for the Nile water resource in upstream country. The downstream country particularly sees this project critically and is trying to deter its progress so far. This project is expected to use even for downstream countries in providing sufficient energy and controlling flood in time of heavy rain. In principle, many Egyptians from the academia and research organizations say that cooperation is important for both downstream and upstream countries in the Nile water utilization. According to one expert of international law from the Egyptian embassy to Ethiopia, for example, despite Ethiopia is constructing the Ethiopian Renaissance Dam (GERD) without Egyptian consultation, they are still ready for negotiation and cooperation.

Nonetheless, this is not geared towards the ground in which Egypt is seen to make various strategies of obstacle and conspiracy approach. In fact, Ethiopia doesn't need any kind of consultation to construct its water project as long as it cannot significantly harm other riparian countries in the basin. In any case, Ethiopia is unilaterally constructing this mega-hydropower plant in the Blue Nile river system. So, this is indeed critical paradigm shift of the potential water use on the Nile water resource of upstream riparian country in the hydro political history of the Eastern Nile river basin.

4. The emergence of modern international water laws

In its evolutionary process, international water laws are fundamentally a result of customary laws and various treaties between states and different doctrines on the utilization of trans-boundary Rivers. These International water laws recently have evolved from the Helsinki Rules of 1966 through the 1997 UN Convention to the Berlin Rules of 2004.

4.1. The Helsinki Rule of 1966

Different literatures tell us the Helsinki Rules of 1966 was developed by the International Law Association (ILA); which is a scholarly non-governmental organization. According to [8], "the Helsinki Rules was the first effort by an international organization to prepare a comprehensive codification of the law of the international watercourses." The Helsinki Rules has important elements of hydro-political issues within its provisions under article 4 and 5 [9], which includes the well-known principle of equitable and reasonable use that incorporates some important issues such as the geographic, hydrological, climatic, historical, social, economic and technical elements assessed under its provision [10]. This (equitable and reasonable share) provision, indeed, makes original the Helsinki Rules. Because, those hydro-political elements under the said articles (4 and 5) indicate that the principle itself is derived based on benefit sharing in shared water resources than simply water sharing.

In addition to incorporate the principle of equitable and reasonable share of international rivers, the Helsinki Rules seems more incorporated than other water regimes. Because, in the different factors outlined to determine equitable and reasonable utilization of an international watercourse, it includes critical concerns such as water contribution of riparian states and related issues specifically [9]. In this regard, Ethiopia contributes 86% of water not only to the Eastern Nile but also to the total Nile River system. In other words, water contribution for the Eastern Nile

is almost covered by Ethiopia indeed. However, this has never been considered both by the international water law and the riparian countries.

What the critical point here is this international water regime has significant contribution up on providing clear message for the old notion of historical and natural rights and colonial agreements of (1929,1959) that had been echoed by the downstream countries (Egypt) throughout history.

4.2. *The 1997 United Nations Water Convention*

The United Nations Convention on the Law of Non-navigational Use of International Watercourses was adopted on 21, May 1997, with 104 states in favor where as 27 states abstained and 3 states voted against [11]. This convention is also largely based on the Helsinki Rules of 1996. As a framework convention, the United Nations Convention addressed some basic procedural aspects mainly related with principle of equitable use and leaves the details for the riparian states to complement other agreements based on their respective river basin [8]. The most important parts of the convention are found under part II of the general principles, particularly articles 5, 6 and 7 that dealt with the principle of equitable utilization and the obligation not to cause significant harm [10]. Furthermore, the convention addresses issues like definition of international water courses (art. 2) watercourse agreements, (art. 3), general obligation to cooperate (art. 8), settlement of disputes (art. 83) and arbitration on its annex [12]. More important, article 5 of the convention clearly states what equitable and reasonable unitization is all about and the need for watercourse states participation.

On the other hand, article 7(1) of the Convention puts an obligation not to cause significant harm, which stated that watercourse states shall in utilization of international watercourse in their territories and take all appropriate measures to prevent the causing of significant harm to other riparian states [12]. This, in fact, is in a direct contradiction with article 5(1) of the convention which states gives priority to equitable and reasonable utilization. However, the convention, subordinates the non-harm rule to the rules of equitable utilization [13]. Generally, like its predecessor, the UN convention of 1997 also open an important door for the right of riparian countries in a particular river basin which has come up with the icon principle of equitable and reasonable utilization that is completely against all old claims of natural and historical rights.

4.3. *The Berlin Rules on water resources of 2004*

The Berlin rules has also come up with an important set of rules on all major aspects of the utilization, management and conservation of water resources after a series of discussion and conferences in different cities of the world such as London, New Delhi and Berlin [14]. Unlike the previous attempts-the Helsinki Rules or the UN Convention, the Berlin Rules includes some provision that are applicable to the management of the surface and ground waters of a national and international level of water courses [14]. Moreover, this Berlin rule also includes specific issues on impact assessment which are more related to the environmental protection under its chapters of 5, 6 and 7 [8].

On the other hand, this document has put the two major principles of equitable utilization and not to cause harm independently in articles of 12 and 16 respectively [15]. In this regard, the Helsinki rule established the equitable utilization as core of international water law; the UN water convention also subordinated the no significant harm principle to the equitable and reasonable utilization principle [1]. In fact, the Berlin rule may be dangerous at this point which it has put the no significant harm clause indecently for upstream riparian courtiers. Despite this critical problem, however, both clauses are an integral part of the modern international water laws which are against hegemonic interest on shared water resources.

Thus, the Berlin rules has its own pivotal role in changing the mind set of old fashion hegemonic tendencies on trans-boundary river basins.

What the fundamental point now regarding these international water regimes is they pave the way for equitable and reasonable use to the extent that launching meaning full initiative such as the NBI and CFA in the Nile River basin.

4.4. *The Entebbe agreement (Cooperative Framework Agreement)*

Though the two downstream riparian countries (Egypt and Sudan) strongly opposed it the CFA was launched in which five upstream states including Ethiopia signed to seek equitable utilization of water from the Nile River on May 2010 [16]. Like any other international legal frameworks on water utilization, this Cooperative Framework Agreement, comprises various articles which constitutes general principles, right and obligations, institutional structure, subsidiary institutions, miscellaneous provisions, and final clauses [16].

This cooperative framework agreement is, basically, the product the long-standing tough efforts of upstream riparian countries which they materialized based on the contemporary international water laws. In attempt to perpetuate its hegemony, Egypt has been used the colonial agreements as a legal basis over the Nile river basin [5]. However, neither the colonial agreements nor any terms of natural right, historical right and acquired right is found in this CFA document in single article. The CFA document rather worthily mentioned the notion of water security in a manner of water security for all riparian states of the Nile river basin [17]. This term has been one of the reasons that made the signing of the agreement controversial indeed. Generally, the CFA has its own significant role to change the tendency of unilateral control of the water which was for the long period of time by the downstream riparian countries mainly Egypt.

5. Discussion

Most studies in hydro-politics are seen to discuss water doctrines and international water laws as part of their respective theoretical framework. This is because of those water doctrines, laws and conventions give clear directions and frameworks for utilization of shared water resource in a particular river basin. However, any claim on water use and development other than the aforementioned doctrines and laws is void in the contemporary era. In this regard, old claims like hydro-hegemony, natural right, historical right and acquired rights are worthless notion in today's world. These notions and claims even cannot be found in any water law and convention of the modern international water laws.

On the other hand, most of the contemporary international water regimes have come up with important principle on water use and utilization i.e. the equitable and reasonable utilization which is found, for instance, in the Helsinki rule (art.4), UN convention (art.5) and Berlin rule (art.12). The point is, hence, old water claim notions and ideas in the Nile river basin are being degraded as the result of the emergence of modern international water regimes. In fact, Egypt's hydro-political discourse throughout the history of the basin is based on those old-fashioned and void notions whereas Ethiopia and other upstream riparian countries have been trying to use their shared resources based on the principle of equitable and reasonable utilization. In general, all these provisions in the above articles indicate that upstream countries have the right to use the shared water resource, on the one hand, and downstream countries should responsible to share it than claiming hegemonic control on the other.

6. Conclusion

As concluding remark, the main assessment of the article has shown that the unilateral controlling situation of the Nile water resource is being changed because of the potential of upstream riparian states and the emergence international water regimes. Furthermore, the notion of hydro-hegemony is currently void and doesn't make sense in the contemporary international water laws.

Generally, Water, naturally, doesn't know a specific border rather than a course. Based on this reality, no single riparian country is legitimate to claim hegemonic use of shared water resource. The same was true in the Nile River case in which Egypt had been controlling the shared water resource throughout history. Nevertheless, this status quo has been changed in the contemporary Nile. For both upstream and downstream countries of the basin, thus, it is necessarily to have sustainable cooperation without any option.

Declarations

Author contribution statement

Kahsay Gebrehiwet: Conceived and designed the experiments; Performed the experiments; Analyzed and interpreted the data; Contributed reagents, materials, analysis tools or data; Wrote the paper.

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The authors declare no conflict of interest.

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No additional information is available for this paper.

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References

- [1] Y. Arsano, Negotiations for a Nile-Cooperative Framework Agreement, 2011, Institute for Security Studies Papers, 2011 (222): p. 8-8.
- [2] A.M. Melesse, W. Abtew, S.G. Setegn, Nile River Basin, Springer, 2011.
- [3] Y. Arsano, Ethiopia and the Nile: Dilemmas of National and Regional Hydropolitics, ETH Zurich, 2007.
- [4] A.E. Cascao, Changing power relations in the Nile river basin: unilateralism vs. cooperation? *Water Altern. (WaA)* 2 (2) (2009).
- [5] E. Bayeh, New development in the Ethio-Egypt relations over the hydro-politics of Nile: questioning its true prospects, *Int. J. Pol. Sci. Develop.* 3 (3) (2015) 159–165.
- [6] J. Kaiser, Paul, F. Okumu Wafulu, Democratic Transitions in East Africa, 2004.
- [7] D. Phillips, et al., Trans-boundary Water Cooperation as a Tool for Conflict Prevention and Broader Benefit-Sharing, Ministry for Foreign Affairs, Stockholm, 2006.
- [8] S.M. Salman, The Helsinki rules, the UN watercourses convention and the Berlin rules: perspectives on international water law, *Water Resour. Develop.* 23 (4) (2007) 625–640.
- [9] H. Rules, The Helsinki Rules on the Uses of the Waters of International Rivers, International Law Association, 1966.
- [10] G. Eckstein, Development of international water law and the UN watercourse convention. In development of international water law and the UN watercourse convention, in: *Hydropolitics in the Developing World: A Southern African Perspective*, 2002.
- [11] S. McCaffrey, The UN Convention on the Law of the Non-navigational Uses of International Watercourses: Prospects and Pitfalls, World Bank Technical Paper, 1998, pp. 17–28.
- [12] M.S. Helal, Sharing Blue gold: the 1997 UN convention on the law of the non-navigational uses of international watercourses ten years on, *Colo. J. Int'l Envtl. L. & Pol'y* 18 (2007) 337.
- [13] S.P. Subedi, International Watercourses Law for the 21st Century: the Case of the River Ganges Basin, Routledge, 2016.
- [14] L. del Castillo-Laborde, The law of transboundary aquifers and the Berlin rules on water resources (ILA): interpretive complementarity, in: ISARM2010 International Conference. Transboundary Aquifers: Challenges and New Directions, 6–8 December 2010, 2010.
- [15] M.M. Rahaman, Principles of international water law: creating effective transboundary water resources management, *Int. J. Sustain. Soc.* 1 (3) (2009) 207–223.
- [16] D.Z. Mekonnen, Between the Scylla of water security and charybdis of benefit sharing: the Nile basin cooperative framework agreement-failed or just teetering on the brink, *Goettingen J. Int'l L.* 3 (2011) 345.
- [17] M.M. Abseno, The influence of the UN Watercourses Convention on the development of a treaty regime in the Nile River basin, *Water Int.* 38 (2) (2013) 192–203.