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TRANSBOUNDARY RIVERS WITHIN ECOLOGICAL SECURITYPERSPECTIVE: THE NILE RIVER CASE⁻

Senem ATVUR**

Abstract

Uluslararası İlişkilerin en tartışmalı kavramlarından biri güvenliktir. Değişen uluslararası sistem içinde yeni tehdit ve meydan okumaların ortaya çıkışıyla güvenlik konusu çevre sorunlarını, özellikle de su sorununu içerecek şekilde genişlemiştir. Bu çalışmanın amacı Nil Nehri havzası örneği üzerinden sınıraşan nehirleri, ekolojik güvenlik yaklaşımının sınırötesi işbirliğine katkılarını ortaya koyacak şekilde irdelemektir. Sınıraşan sular çoğunlukla devlet merkezli yaklaşımlarla ya da çatışma perspektifiyle ele alınmasına rağmen bu çalışma, kıyıdaş devletler tarafından önemli bir tehdit olarak görülen sınıraşan havzalardaki çevre sorunlarının işbirliğini geliştirmek açısından bir fırsat olabileceğini iddia etmektedir. Bunun yanında kıyıdaş devletler ve havzadaki işbirliğine yönelik örgüt tarafından benimsenecek ekolojik güvenlik perspektifinin çevre sorunlarının üstesinden gelinmesinin yanında bölgesel barışa da katkı yapabileceği ortaya konulmaktadır.

Keywords: Transboundary river, Water, Ecological security, Cooperation, The Nile River.

EKOLOJİK GÜVENLİK PERSPEKTİFİNDEN SINIRAŞAN NEHİRLER:NİL NEHRİ ÖRNEĞİ

Özet

Uluslararası İlişkilerin en tartışmalı kavramlarından biri güvenliktir. Değişen uluslararası sistem içinde yeni tehdit ve meydan okumaların ortaya çıkışıyla güvenlik konusu çevre sorunlarını, özellikle de su sorununu içerecek şekilde genişlemiştir. Bu çalışmanın amacı Nil Nehri havzası örneği üzerinden sınıraşan nehirleri, ekolojik güvenlik yaklaşımının sınırötesi işbirliğine katkılarını ortaya koyacak şekilde irdelemektir. Sınıraşan sular çoğunlukla devlet merkezli yaklaşımlarla ya da çatışma perspektifiyle ele alınmasına rağmen bu çalışma, kıyıdaş devletler tarafından önemli bir tehdit olarak görülen sınıraşan havzalardaki çevre sorunlarının işbirliğini geliştirmek açısından bir fırsat olabileceğini iddia etmektedir. Bunun yanında kıyıdaş devletler ve havzadaki işbirliğine yönelik örgüt tarafından benimsenecek ekolojik güvenlik perspektifinin çevre sorunlarının üstesinden gelinmesinin yanında bölgesel barışa da katkı yapabileceği ortaya konulmaktadır.

Anahtar Kelimeler: Sınıraşan nehir, Su, Ekolojik güvenlik, İşbirliği, Nil nehri.

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Introduction

Water, as a vital resource not only for human beings but also for whole life on the Earth has become one of the most important issues in international relations. Even though water is a renewable resource, degradation on ecological systems, mostly due to human activities of last centuries, has begun to destroy water cycle which ensures the sustainability of waters on Earth. Whilst the quantity of freshwater on the world is limited¹ and main freshwater resources -rivers and lakes- are not distributed evenly, struggle on these resources, especially on transboundary waters, turns into a challenging problem.

According to the UN; approximately 40 % of world population lives in river and lake basins and over 90 % of this population lives in shared basins. There exist 263 transboundary lakes and river basins in the world and they provide at least 60% of global freshwater flows (UN-Water, 2015). 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes' article 1 defines transboundary water as "any surface or ground waters which mark, cross or are located on boundaries between two or more states". In the light of this definition, it is obvious that rivers, lakes and groundwater basins could be called as transboundary waters. In this article, only transboundary rivers have been studied by questioning the ecological security of the transboundary basin. The aim is to discuss the correlation between cooperation and ecological security perspective in transboundary basin to improve ecological conditions of the resource, as well as to diminish security concerns in the basin. This article defends that developing ecological cooperation would be a basis for improving ecological conditions, reducing security risks and guaranteeing safety of riparian nations. It is argued that the cooperation set up for fair, equitable, and sustainable use and sharing of transboundary waters which comprises principles for ecological protection, could also emphasise the reconciliation between riparian states for eliminating security risks in the basin and could ensure the development of a common objective towards the improvement of socio-economic, political and ecological conditions. In this context, the ecological security perspective that provides a broader and holistic approach by prioritising ecosystems' integrity in connection with the life and survival of humans, economic activities and state interest is explained. In order to comprehend how transboundary cooperation with an ecological security perspective could contribute to the security of the basin, the Nile River Basin and the riparian states' political approach to the environment, security and cooperation is analysed with descriptive method.

1. An Ecological Shift in Security

Security, one of the basic necessities of humans who live in a social realm, is defined as "a state of being free from danger or threat" in Oxford Dictionary. Human beings try to protect individually and socially themselves and their relatives from threats and want to ensure physically, economically, socially, and politically secure environment for them. Moreover, while perception of a person, a situation or an event as a security threat depends on multiple factors, definition of security also becomes an important and difficult action. According to Ullman (2007: 299), definition of security is valorised by the threats which challenge it with losing it. Baldwin (1997: 10) who defines security as a contested concept same as Smith (2005) argues that in order to eliminate the ambiguity of meaning, requirements for classification and incorrect specifications concerning the security, a new specification seems to be necessary. He also claims that answers of the following questions -Security for whom? Security for which values? How much security? From what threats? By what means? At what cost? In what time period?- could help clarify the objects and subjects of security threat. However, the relativity of security, as a political option, remains a disputable matter. Relativity of security issues are explained by Buzan et al. (1998) through socially constructed perception. They describe security as a political move beyond the established rules, within a new political framework; nevertheless, according to them, securitisation is the key point of this process. Securitisation means to transform an issue into a security issue by using the rhetoric of existential threat. This extreme version of politicisation requires the persuasion of public opinion by speech act or rhetorical activity for responding the threat (mainly existential threat), usually by resort to extraordinary measures (Buzan et al., 1998: 32). Hence, existential threat becomes referent object, who try to elaborate a threat perception is securitising actor and who are persuaded to threat are functional actors².

¹ Although about 70% of world surface is covered by water, more than 90 % of this water is found in the oceans, so it is salty water. However, more than 60 % of the remaining amount is found in glaciers.

² In the matter of security, the sense of fear thus plays a primordial role; as long as the fear of people about an issue has increased, security

In the context of international relations, security and securitisation have been considered as issues related to state or to its defence. However, in a changing world, emergence of new threats provoked substantial shift concerning security studies. Environmental problems that mostly occur due to degradation of ecological systems caused by human (anthropogenic) activities have become one of these threats transforming security agenda. For example, growing ecological degradation like pollution, depletion of vital resources or climate change started to trigger new political and humanitarian crises, deepened the threats towards both the integrity of ecosystems and living conditions of human beings which affects the safety of economic, political and social systems. Therefore, the classical perception of security has begun to be questioned as the focus of existential threat has shifted. These problems have brought out the truth that state frontiers are irrelevant to stop the impacts of environmental disequilibrium, as ecological systems are linked to each other in a complex way without respecting artificial national boundaries. The impacts of ecological crisis have driven global community to consider environmental problems as a security issue. Mathews (1989) who takes into account the importance of problems which cause environmental degradation as a security issue in the process of redefining the security, links exacerbating threats to population growth, excess of carrying capacity and risk of break on renewability (as a result of destructed ecosystems), climate change, widening gap between rich and poor, depletion of ozone layer (which was stopped through international cooperation in 1990s). Hence, these ecological problems have been transforming traditional security concerns (Dalby, 2013: 2-7).

While the meaning and content of security have been changing, the aggravation of ecological degradation³ fuelled discussions on environmental security. Treating environmental problems as security issues could cause controversial situations such as underestimating the impact of environmental problems. Moreover, defining environmental security, as an arguable concept, has been a challenging task; as the environmental security literature includes different methodological and theoretical approaches, the concept of environmental security has also been used connecting different aspects, from military issues to political ecology (Floyd and Matthew, 2013: 2-11). Concerning the involvement of environment into the security agenda, two separate approaches could be asserted. Some scholars argue that securitisation of environmental problems prompt the states to be interested in ecological degradation, on the other hand it is also suggested that this approach could bring a desecuritisation process of the environmental issues⁴ (People and Williams, 2015: 109). First approach focuses on the possibility of war and conflict because of resource scarcity, in the manner of prioritising state interest. The second one instead claims the necessity of examining environmental threats beyond the state realm, and emphasises the interdependency between human life and ecosystems. According to Deudney (1990: 468-69) environmental security, beyond the national security concerns, can only be achieved in common sense, so by the common security, an alternative to mainstream national security approach including collective action.

Linking environmental problems -especially vital ones like scarcity of water- to the conflict creates the risk that threat of conflict might cause to see environment like an unsecure object or an enemy, and that might lead to a struggle against environment instead of a struggle for sustaining ecological order. Especially the ostensible risk of resource scarcity is asserted as an effect of violent conflict. Homer-Dixon's researches undertake this approach. According to him, scarcity of critical environmental resources such as water could contribute to violent conflicts; even if scarcities would not be directly the cause of war, they could aggravate existing cleavages or inter or innerstate tension(Homer-Dixon, 1999). Different than these state-centric assumptions, ecological problems should be considered in a holistic perspective which prioritises the sustainability of ecosystems and try to find integrated solutions by focusing on interdependency between political, socio-economic and ecological systems, discussing new transnational cooperation possibilities that can transform the perception of security. In this perspective, Khagram et al.(2003) suggest the concept of sustainable security which underlines the interdependency of nature and security. They claim that as nature and society are interdependent they are mutually affected by

policy regarding this issue has emerged. So, security and fear are the adjacent parts of the same continuum and by creating a vicious circle, they mutually feed each other. Fear stimulates the need of security which is based on the idea of being safe, and the security policies, pretending to elaborate a safe area, free from the cause of fear, become an object of offense that arouses fear and insecurity for whom these policies have been targeting.

³In that case, two perspectives have appeared regarding ecological degradation; on the one hand, they claim that humanity is at the threshold of environmental collapse due to the imbalance between renewing capacity of nature and exponential growth; on the other hand optimists argue that human ingenuity and innovation could ensure the control and resolution of problems (Danreuther, 2013: 140-145).

⁴ Deudney (1990), particularly, suggests avoiding securitisation of ecological problems whilst involving the states might have entailed the militarisation of problems.

threats and opportunities; therefore neither human security nor environmental security paradigm tackle alone multi-dimensional challenges to global problems. Hence, beyond state security they proposed a new framework "in which the complex interactions between states, human beings and nature should be the focus and the environment is valuable in itself to be secured in its own right" (Khagram et al., 2003: 301-302). Moreover, Zala (2013: 280-83) assumes that sustainable security approach contains preventive strategies rather than reactive ones and relies on resolving the cause of the problems at the source.

Beyond the sustainable security, the concept of ecological security which brought a new discussion to the security literature, also offers an appropriate basis for linking environmental protection, and equal and fair distribution of natural resources by developing binding regulations for states or elaborating new international regimes (Timoshenko, 1990). Maintaining a dynamic balance between nature and human societies, needs of human beings and other species is the focus of the ecological security (Pirages, 2011). Furthermore, according to Barnett (2001: 109), ecological security could be linked to common security by prioritising "interdependence, complexity, uncertainty, harmony and sustainability" for preserving the long-term ecological equilibrium. In this article ecological security approach has been chosen in order to discuss the cooperation on transboundary waters. As ecological security emphasises the link between ecological balance and security of socio-political systems and individuals, it is assumed as a useful basis in order to reduce the political tension related to transboundary waters between riparian states, to develop socio-economic conditions in sharing basin and to improve the transboundary cooperation by conserving ecosystems dependent to transboundary resource. In order to comprehend the role of ecological security approach on transboundary cooperation, security concerns on transboundary waters should also be assessed.

2. Security Concerns on Transboundary Waters and Cooperation

Water is a vital and non-substitutable resource for all, source of the life on Earth, for this reason it is considered in different frameworks such as economic interests, political priorities or basic needs. There is also another point of view taking into account all these requirements, additionally safety of water resources. Water security as a wide and multi-dimensional concept has entailed this framework by linking national, human and ecological security. "The 2000 Hague Ministerial Declaration on Water Security in the 21st century" indicates main challenges related water security. Basic requirements such as household needs, food or energy production; national interests such as sovereignty, strategic utilisation, hydro-hegemony; or ecological principals such as integrity of ecosystems, conservation, ecological balance are selected as priority areas for achieving water security; so it shows that water security concept involves different security concerns. "Water Security & the Global Water Agenda" report published by UN-Water in 2013 defines water security as "the capacity of a population to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socioeconomic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability". Furthermore, it underlines the importance of ecosystems' protection and preservation like an inseparable requirement for water security and states that "water security can only be achieved if it is supported by an enabling environment that establishes systemic and cross-cutting changes, including integrated policies targeting synergies across sectors, while managing the demand for water by all users and stakeholders". Views in the "Water Security & the Global Water Agenda" report (UN-Water, 2013) shows that although an ecological perspective is reflected on the review, maintaining water security is linked mostly with humans' needs, sustainability of economic development and political stability. However, in ecological perspective whilst water is accepted as the source of ecosystems' sustainability; damages caused by anthropogenic activities, degradation of water cycle and depletion of water resources are accepted as the most important threats to water security. The complexity of water security requires undoubtedly synthesising different aspects of security to tackle the problems related to water. In the context of transboundary waters which are located in or between more than one state's territory, challenges raise related to increased number of actors, interests and threats. The connection between environmental degradation and socio-political problems and the complexity of security issues necessitates adopting specific approach for transboundary waters' security.

⁵ These are to meet basic needs, secure the food supply, protect ecosystems, share water resources, manage risks, value and govern water. In order to ensure water security the common goals have to be included protection of ecosystems, political stability, sustainable development and access to enough safe water (with an affordable cost).

Transboundary waters are generally considered in the context of political, economic or strategic interests of states; though water as a strategic resource is linked to issues of stability, peace, and conflict (Zala, 2013: 273). In fact, transboundary waters are mostly mentioned with conflict and with a contending concept, water wars. Water wars approach which is related to the degradation and scarcity of resources asserts water as an object of competition and a potential cause of violent conflict in the national interest perspective. Water as a vital resource has been accepted crucial not only for humans' and other species needs but also for economic activities such as agriculture (which is the most water-consumed sector) and industrial production. While water is a vital and indispensable resource for life and economic activities, its value brings out compromises between competing interests which increases the risk of conflict. In the case of transboundary waters, as different states play varying roles, and as military interventions might become an option, there is a risk that conflict might transform into a war over the resource. Hatami and Gleick (1994: 10) explained that the first water war took place 5000 years ago in Mesopotamia between two city-states, Umma and Lagash. In the aftermath of this water war, during the history a lot of conflicts related to water has occurred, but never a water war again (Zeitoun and Warner, 2006: 279). Nevertheless, Pacific Institute's (2017) index of water conflicts shows that even if water has not been a direct cause of war, it can play an important role by becoming a military target or tool. Gleick (1993: 84) reveals that degree of scarcity, the number of actors who benefit the source, the relative power of basin states, and the ease of access to alternative resources influence the manner and dimensions of the conflict on water basin. Although conditions of unequal access to water could trigger conflict and instability, perceptions on unequal access to water might create a more important risk of conflict than material threat (Zala, 2013: 276). On the other hand, concerning transboundary water conflicts, power-related tactics, strategies, and the role of hegemonic actor are seemed primordial for the control over water resources. Answers of questions of who gets how much of the water, how, and why reflect the role of different actors in the basin, and this relationship between riparian countries is found more compromising than water wars (Zeitoun and Warner, 2006). This perspective gives the predominant role to the state and state politics, and assumes that hegemonic power's political attitude determines whether control over water would be coercive or consensual.

Regarding the transboundary waters, however, the most significant argument discussed in international community is the cooperation. Regional cooperation and good governance involving all parties are also pointed out as essential elements for ensuring transboundary water security (UN-Water, 2013). In 1911 Madrid Declaration published by International Law Institute has served primary principals of international cooperation along the watercourses (Giordano and Wolf, 2003: 166). In the meantime, two international regulations become preponderant about the use and protection of transboundary waters. *Convention on the Protection and Use of Transboundary Watercourses and International Lakes* signed in 1992 and *Convention on the Law of the Non-navigational Uses of the International Watercourses* signed in 1997 are the main international references concerning cooperation on transboundary waters. The first one, Helsinki Convention emphasises the development of cooperation between riparian countries in the manner that ecological sustainability and environmental protection are guaranteed⁶. In this context, convention assumes that "cooperation shall be on the basis of equality and reciprocity, through bilateral and multilateral agreements, harmonized policies, programmes and strategies" (UN, 1992). Although the Convention also determines the principals of pollution prevention, waste management, quality of water, resource planning and management, research and development, information sharing and dispute settlement, it is not obvious how these principals would apply.

The second one, the 1997 convention regulates the principals about "reasonable and equitable utilisation". This principal contains optimal and sustainable utilisation which is taking into account the interests of the watercourse states concerned, and the adequate protection of the watercourse. According to the Convention, 6 Regarding the ecological concerns, need for strengthened national and international measures to prevent, control and reduce the release of hazardous substances into the aquatic environment, to abate euthrophication and acidification, as well as pollution are appealed. Convention anticipates reducing any transboundary impact at source through appropriate measures such as to prevent, control and reduce pollution of waters; conservation, environmental protection, rational water management; reasonable and equitable use; restoration of ecosystems. In order to achieve this aim guiding principles are precautionary measures (about hazardous substances), polluter-pay, and management considering needs of future generations (UN,1992).

7 Factors relevant to equitable and reasonable utilisation include considering geographic, hydrographical, hydrological, climatic, ecological and other factors of natural character; the social and economic needs of the concerned states; population dependent on the watercourse; effects of use or uses of one state on others; existing and potential uses; conservation, protection, development and economy of use of the watercourse and the costs of measures; availability of alternatives and comparable value. Therefore, the Convention determines the limits of reasonable utilisation. Although all riparian states have right to utilise the international watercourse in their territories, they are

watercourse states have to participate in the use, development, protection of the watercourse in an equitable and reasonable manner. This obligation requires both the right to utilise the watercourse and the responsibility to cooperate in protection and development. The convention also includes general obligations of cooperation which are sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilisation and adequate protection of the watercourse. Moreover, if it is possible, to establish the joint mechanisms or commissions to facilitate cooperation on relevant measures and procedures are proposed (UN, 1997). Rieu-Clarke (2009: 574) claims that even though the convention is legally binding for riparian states regarding the consultation and information exchange, concerning sustainable management and planning riparian states are encouraged, not obliged.

Although these international conventions define essential principals concerning utilisation and protection of and cooperation on transboundary waters which are linked to the ecological security, the problem is the effectiveness of them. The 1992 convention that entered into force in 1996 is adopted by 40 states, and the 1997 Convention that entered into force in 2014 with the adoption by Vietnam is recognised only by 26 states. Despite the fact that the UN system includes more than 200 states and the 263 transboundary water basins spread around the world, the conventions were barely adopted. Thus the scope of these conventions remains limited as there are no coercive mechanisms or sanctions for states to oblige them to accept international regulation or participate into international initiatives and cooperation; eventually state's economic or political interests are prioritised than ecological requirements. Meanwhile, it is not evident who or what will be able to force states to cooperate with ecological and social motivations. However, a problematic issue -ecological sustainability- has remained untouched regarding transboundary cooperation. In this context, the Nile River basin is examined in order to comprehend the potential impact of cooperation. The analysis of this case would help to reveal the priorities of riparian states, the content of cooperation and whether the cooperation between riparian states improves ecological conditions in the basin. Moreover, by examining riparian states' environmental and security policies, it is aimed to reveal their positions regarding environmental problems; thus to draw a parallel between the riparian state's position and cooperative institution's policies for the recognition of an ecological security perspective.

3. Transboundary Cooperation in the Nile River Basin

Although international conventions provide a framework for the development of cooperation on transboundary waters with purposes of prevention of environmental degradation, protection and collaboration between riparian countries, cooperative initiatives on transboundary basins face with multiple difficulties due to conflicting interests. The comparison between riparian states according to their political, economic and military power, and their environmental policies would also reveal the scope and success of cooperation in the basin.

3.1. The Nile Basin

One of the longest rivers of the world, the Nile, starts to flow from the Kagera Basin⁸ near the Lake Victoria and reaches the Mediterranean Sea in Egypt by crossing eleven countries and 6695 km. Moreover, the area covered by the drainage systems and tributaries –the White Nile, Blue Nile, Atbara and Sobat- reaches 3.2 million square kilometres and constitutes the Basin of Nile which contains population of 238 million (The Nile Basin Initiative, 2015). The eleven countries shared this basin are Egypt, Ethiopia, Sudan, South Sudan, Democratic Republic of Congo, Kenya, Uganda, Burundi, Eritrea, Rwanda and Tanzania; which totally differ politically, economically and culturally from each other. As shown in Table 1, the comparison between riparian countries' demographic and economic features reveals this discrepancy. The most populated country in the region, Ethiopia, seems to be the one of the less developed countries in the basin, as shown by her GDP and GNI per capita rate. Through the basin, the poorest country is Burundi with its \$ 3 billion GDP per capita while Egypt is the most economically powerful state in the basin due to its \$ 332 billion GDP rate. Furthermore, when we take a look at Egypt's military expenditures, even though the percentages of some other countries are higher than Egypt's, the high GDP value

forced to take all appropriate measures to prevent the causing harm to the others. This principal of "significant harm" does not exclude the compensation option. Meanwhile, the convention includes in article 33 dispute settlement mechanism which contains arbitration and appeal to International Court of Justice too. (UN,1997)

8 It is another international river basin which is shared by Burundi, Tanzania Rwanda and Uganda, and whose waters are emptying into Lake Victoria.

ensures the country to be the most powerful military actor in the basin. In this context, the situation of South Sudan is an exception; the youngest state of the region, established aftermath of a civil war, has an immense military expenditure compared to its economic income. Furthermore, another point that shows development level of states besides economic data is human development indicators. In that perspective, the circumstances in riparian states are not very optimistic. Citizens of many riparian states have been struggling with severe problems like poverty, famine, scarcity of water or casualties of war.

Table 1: The Nile Basin's Socio-economic indicators

Nile Basin	Population	GDP	GNI per capita	Military expenditures	HDI
	(2016)	(2016)	(2016)	(in 2016)	Value/2015
Egypt	95.68 million	\$ 332.7 billion	\$ 10980	1.7 % of GDP	0.691
Ethiopia	102.4 million	\$ 72.3 billion	\$ 1730	0.7 % of GDP	0.448
Sudan	39.57 million	\$ 95.5 billion	\$ 4290	2.8 % of GDP	0.490
South Sudan	12.23 million	\$ 21.07 billion	\$ 1882 (2015)	12.8 % of GDP (2015)	0.418
DR Congo	78.73 million	\$ 35.38 billion	\$ 780	1.2 % of GDP	0.435
Kenya	48.46 million	\$ 70.52 billion	\$ 3120	1.3 % of GDP	0.555
Uganda	41.48 million	\$ 24.07 billion	\$ 1790	1.7 % of GDP	0.493
Rwanda	11.91million	\$ 8.37 billion	\$ 1860	1.2 % of GDP	0.498
Burundi	10.52 million	\$ 3 billion	\$ 770	2.2 % of GDP	0.404
Eritrea	12.26 million	\$ 9.32 billion	\$ 1490 (2015)	no data	0.420
Tanzania	55.57 million	\$ 47.34 billion	\$ 2740	1.1 % of GDP	0.531

Reference: World Bank (2018). https://data.worldbank.org/; UNDP (2018). http://hdr.undp.org/en/composite/HDI; CIA (2018). The World Factbook. https://www.cia.gov/library/publications/the-world-factbook/geos/od.html.

The high level of military expenditures of riparian states is mostly due to the different political and military conflicts between neighbour countries. Because of the mixed ethnic and religious structure of the region, and of contradicted political or economic interests; political disorder, civil or interstate wars and war crimes have become characteristic of the region. Each country has a security issue related to its neighbour or neighbours. For example, while Egypt perceives some acts of Ethiopia as a threat against its security —especially regarding water issues, in order to weaken this state, it can provide military or economic support to Eritrea that has critical border conflicts with Ethiopia (Verhoeven, 2011). Moreover, humanitarian crisis in Somalia, Rwanda, Sudan which became an international problem due to intervention of neighbour states because of their ethnic, religious ties or just because of the political interest have raised tension in the region. Therefore, through an international initiative, gathering of these countries which were in war not more than a decade ago must be accepted as a huge step in order to develop cooperation on a contentious subject.

Another crucial problem that increases the risk of conflict is related to the weather conditions in the region. Although the Nile Basin situated in the semi-arid or desert zone, according to data of World Resources Institute (WRI), basin countries have low water stress scores (WRI, 2018). It could be claimed that they do not face with the challenges of water scarcity. However, the impacts of climate change pose new threats for the ecosystems and riparian countries including drought, sea level rise, water scarcity, problems of access to water or irrigation etc. (Nile Basin Initiative, 2013: 1-2). Yet the environmental degradation with its transboundary impacts is a common problem in the basin, riparian countries' environmental policies should be assessed. It is obvious that each country faces important environmental problems —one of them is water pollution—and due to a lack of finance, technology or infrastructure it seems difficult to handle these problems⁹. Pollution and deforestation are the most important problems threatening ecosystems and human life in the basin. Although ecological problems have become threat against integrity of society, human life and ecological cycles, states are not

⁹ For the details of environmental problems in the basin: El Masry, 2013; Beyene, 2009; Cesar and Ekbom, 2013; UNEP, 2007; Government of the Republic of South Sudan, 2012; Kifle, 2014; UNEP, 2013; USAID, 2000; Morgan, 2009; Beck et al., 2010; European Commission, 2006.

willing to transform security priorities in a manner that both humanitarian and ecological security approaches are considered. Comparison of environmental and water policies of riparian countries reflected on the Table 2 reveals that all riparian countries have more or less separate institutional and judiciary structures related to environment water. Therefore, as the regulations remain insufficient or ineffective, environmental and water related problems have begun to transform into severe ecological and/or humanitarian crisis threatens the security of the region.

Table 2: Environmental and Water Policies of the Nile Basin Countries

Country	Environmental Agencies	Environmental Law	Water Resources Policy	Ecological Security Perspective
Egypt	-Ministry of Environment -Ministry of Water Resources and Irrigation -National Water Research Centre	-Law for the Protection of Environment (1994) -The Egyptian Public Authority for the High Dam and Aswan Reservoir -National Water Research Centre Inter-Ministerial Committee on Water Planning	Under control of central government	Water issues related Nile assessed among security threats, but no environmental threat perspective
Ethiopia	-Ministry of Natural Resources Development and Environmental Protection -Ministry of Water and Energy (2010) -Ethiopian Environmental	-Water Sector Strategy (2001) -Water Resources Management Strategy	- Water is owned by all the peoples of Ethiopia; it's an economic good as well as a social good -Water as a scarce and vital socio-economic resource	-no data
Sudan	Protection Authority -Ministry of Environment and Physical Development -Ministry of Irrigation and Water Resources -National Council for	-Water Resources Act of 1995 -Water Supply and Environmental Sanitation Policy	- Water has an economic and social value -All consumer shall pay the tariff; but poor shouldn't be deprived from water	-no information
South Sudan	Water Resources -Ministry of Environment -Ministry of Water Resources and Irrigation	-National Water Policy 2007 -	- Access to sufficient water of acceptable quality to satisfy basic needs is considered as a human right - Water is both an economic and social good	-no information
Eritrea	-Ministry of Land Water and Environment	-Draft National Water Policy Framework (1997) -Action Plan for Integrated Water Resource Management 2008	-Water is not a free good	-no information

DR Congo	-Ministry of	-Law 11/009 on	-Reference to right	-no information
DK COIIgo	Environment and Sustainable Development -Ministry of Energy and Water Resources	Environmental Protection 2011 -Water Law Project 2012 in Senate -National Politic on Public Water Services and Sanitation (in preparation)	to water (Constitution Article 48)	-no illiorination
Kenya	-Ministry of Environment, Water and Natural Resources (Water Sector)	-Water Act (2002) -Ministerial Strategic Plan 2009- 2012	Every person has the right to water in adequate quantities and of reasonable quality' (Constitution Article 65)	-Consciousness about environmental problems(take obligations seriously); though they are not mentioned as security threats
Burundi	-Ministry of Water, Environment, Land and Urban Planning	-Environmental Law 2000 -Water Code 2013	-Water is an economic good	-Environmental threat mentioned in National Security Strategy
Uganda	-Ministry of Water and Environment -National Water and Sewerage Corporation	-National Water Policy -Water Act 1998 -Environment Act 1998	All Ugandans enjoy rights and opportunities and access to education, health services, clean and safe water (Constitution Article 14)	-Environmental stress and resource constraints are among security threats
Tanzania	-Ministry of Natural Resources and Tourism -National Environment Management Council	-Water Utilization Act 1974 (revised 1993) -Water Laws No.8 1997 -National Environment Policy 1997	-Water is a public good; but the allocation of water as a social and economic good is in competition	-no data
Rwanda	-Ministry of Natural Resources -Director of Environment and Forestry -Minister of State in charge of Energy and Water (related to Ministry of Infrastructure)	-Water Resources Regulation 2008	- Water is a good belonging to the State	-no data

Concerning security policies of riparian countries, it must be pointed out that some states are not enough transparent for sharing security policies with public as it can be seen on Table 2; there is either any or limited information about security strategies. Especially in countries that perceive a serious security threat from another state, such as Ethiopia, Rwanda or Tanzania, there is not any accessible data about security policies. Therefore, regarding other riparian countries whose security policies have been accessible, it is seen that most of them do not have a security perspective which prioritises ecological problems. Even though security policies of Sudan, South Sudan, DR Congo and Eritrea are accessible, these states' security strategies do not contain any mention

about ecological problems which could become a security issue. However, riparian states whose security agendas include references to environmental problems; those strategies are state-centric and do not prioritise ecological security. For example, for Egypt, whilst the Nile's water is conceived as a basic element of life and economic activities, water issues are included in security perceptions. Related to Ethiopia's new dam construction project (Grand Renaissance), it is declared that if the construction continues without negotiation and agreement between parties, this will constitute a "significant threat to Egypt's national and water security" (Egypt MFA, 2015). Among riparian countries, only the position of Kenya is different than others. It reminds the responsibility to next generations regarding to mitigate the impact of contemporary environmental problems in foreign policy document. It also emphasises the risks of "securitisation" of climate change debates in terms of humanitarian responsibilities of security forces to vulnerable communities (Republic of Kenya, 2014; Government of Kenya, 2013). Moreover, Burundi's National Security Strategy which also includes environmental threats is another exception with its involvement of human security perspective. In this context, it is claimed that national security is not only based on state security but also on human security (Government of Burundi: 3). Additionally, Uganda's Security Policy Framework (Reform Unit, 2002) mentions environmental stress and resource constraints, and human underdevelopment as security threats. Even though these developments shifting security debates towards humanitarian and environmental issues are important steps in order to break state-oriented security policies, they are not enough to solve severe ecological problems. Despite these approaches' contribution to cooperation, states' interests continue to weigh on humanitarian and ecological interest.

The comparison of riparian states' policies and socio-economic indicators reveals that Egypt seems to have the water-hegemony of the basin. The reason that led us to this result is not only the economic and military power of the state in the region, but also the opportunity ensured by the 1929 and 1952 agreements about the allocation of Nile's water. The 1929 agreement signed between Egypt and Britain on behalf of East African Colonies under the British control provided Egypt a monopolistic possession on the Nile without consulting other parties (El-Fadel et al., 2003: 110). In 1952 after the independence, Sudan became one of parties of Treaty then followed by other independent ex-colonies, but hegemonic position of Egypt has never changed. The 1959 Treaty for the Full Utilisation of Nile Waters that revised the 1929 Treaty after Sudan's independence also enhanced hydro-hegemonical position of Egypt on the river. The Treaty allowed the constructions of Aswan, Roseires and Khashm al-Girba Dams by Egypt (Carlsons, 2013; Parkes, 2013: 451). As a result, Egypt possesses around 55.5 billion m³ of 74 billion m³ of Nile's water, uses approximately 85% of this amount in agriculture; loses 7 million m³ water because of deficit (due to lack of or outdated infrastructure or environmental degradation) and the demand of water has been increasing related to growing population (IRIN, 2011; Dakkak, 2014). Even though the 1959 Treaty guarantees the advantageous position of Egypt, the demands related to the revision of the agreement are admitted as threat by Egypt to her present right (El-Fadel et al., 2003:111).

The most problematic issue in the Nile Basin as well as other transboundary river basins is dam construction projects. Hydro-power as a part of development project has been seen as an essential source for electricity and irrigation. Since dams became an important source for energy production, they have started to be assessed as a pivotal tool for development. Beyond the ecological impacts of dams which degrade river ecosystem, biodiversity and the life of local habitants (World Commission on Dams, 2000), dam projects could also become a cause of conflict between riparian states. The concurrence between some of the riparian states regarding the control and share of the resource, transforms dam projects into a leverage or threat against other riparian countries. In the matter of transboundary waters, two possibilities reveal under these circumstances: conflict or cooperation. Dam projects executed by different riparian states individually or sometimes in cooperation might be perceived like a security threat by other riparian states. Related to this, the insistence of Ethiopia to the construction of the Renaissance Dam seems to be the most accurate risk of conflict in the basin. Ethiopia's Great Renaissance Dam and South Sudan's Wau Dam projects are worrying Egypt, because the potential impact of these project decreases Egypt's water allocation (Evans, 2011). Although the tension rose and the risk of war appeared in the basin, the negotiations between Egypt, Ethiopia and Sudan appeased the conflict of interest by setting up a scientific committee for controlling equitable and reasonable use of sharing waters (Meseret, 2018).

Despite the rhetoric of water wars, cooperation in the transboundary basin is more prominent than confrontation. Although some riparian states' security policies identify water issues as a threat, there have

not been any military conflicts in the basin because of the water issues. The Nile Rivers is the most important resource in their region for ecological sustainability, economic prosperity, social and cultural organisation and for the life itself. However, as different actors share the resources, conflict of interests becomes inevitable. In this context, the next section examines the role of cooperation in the basin and questions the potential contribution of ecological security perspective to the cooperation.

3.2. Transboundary Cooperation in the Nile Basin

The Nile River as a transboundary basin case shows that although riparian states have particular -and sometimes conflicting- political, economic or strategic priorities, they could launch a cooperative initiative in order to solve transboundary problems and improve cooperation between riparian countries. Despite the conflict of interests between riparian countries in the Nile Basin, there have also been efforts for developing economic integration; the negotiations between 1983 and 1992 on the establishment of Nile Basin Economic Community were concluded in 1993 and the Technical Cooperation Committee for the Promotion of Development and Environmental Protection of the Basin that focuses on environmental and water quality of the Nile was built. In 1998 all riparian states except Eritrea joined in the dialogue process towards creation of a specific institution. As a result of negotiations, in 1999 parties were decided to transform this dialogue mechanism into a permanent cooperation framework; so The Nile Basin Initiative (NBI) was established. Except Eritrea which has an observer status, all riparian countries have participated in this regional cooperation platform that aims to develop multi stakeholder dialogue, information sharing, joint planning and management of water and related resources in the Nile Basin. The objectives of the initiative are the development of the Nile Basin water resources in a sustainable and equitable way for guaranteeing prosperity, peace and security to all people; efficient water management and the optimal use of the resources; win-win principle oriented cooperation and joint action between riparian countries; poverty eradication and improvement of economic integration; a move from planning to action (Nile Basin Initiative, 2018). In 2010 the Cooperative Framework Agreement which will replace the NBI was drafted but has been signed only by six countries (Burundi, Ethiopia, Kenya, Rwanda, Tanzania, Uganda) and protested by Sudan and Egypt under the pretext of their water supply needs (Freitas, 2013).

Under these circumstances the Nile Basin Initiative remains impotent to change the status quo in the basin. Even though the NBI has not been capable of setting a new regime in the basin, its efforts to improve economic and environmental conditions are evident. For example, the NBI is responsible for providing information to riparian countries about water management, environment, social and economic development, and climate change. In this context, regular reports or working papers have been published by the institution; therefore it is obvious that these efforts have not gone beyond being recommendations and never become binding decisions over state authority. Whilst rather than being a transnational institution the NBI has an intergovernmental structure, national governments have not let the institution take coercive decisions for coherent water policies among member states (Tukahirwa, 2014: 31-32). Thus, it seems difficult to reach consensus on this subject and the NBI has yet to be an actor that designs common policies for riparian states. Even though the NBI is an important step to build cooperation in a basin where crisis and tension are part of politics, it remains ineffective for setting a new framework which might adequately solve allocation problems of the Nile water by respecting social and ecological principles (Ward and Roach, 2014: 70). However, the new strategy of NBI for 2017-2027 identifies new strategic priorities in order to achieve its shared objectives and to improve dialogue and cooperation between riparian parties. Towards eliminating the common challenges in the basin, the strategy supports the development of transboundary cooperation and outlines some goals to achieve this aim. These goals are to enhance availability and sustainable utilization and management of transboundary water resources of the Nile; to develop hydropower use in the basin and increase interconnectivity of electric grids and power trade; to ensure an efficient agricultural water use and promote a basin approach to address the linkages between water and food security; to protect, restore and promote sustainable use of water related ecosystems across the basin; to improve basin resilience to climate change impacts; to strengthen transboundary water governance in the Nile Basin (Nile Basin Initiative, 2017).

4. Potential Role of Ecological Security in the Transboundary River Basin

This article argues that despite the rival interests of riparian countries, substantial problems effecting transboundary resources could be a stimulus for developing cooperation in the basins and this cooperation could be based on ecological security principles. In this context the Nile River basin which has subjected to an international cooperation suffers environmental degradation in different degrees. The most important problem in the basins is pollution; the transboundary impacts of environmental degradation that become a threat for biodiversity of the resources, and also for human health and prosperity. Even though all riparian states have environmental and water policies aimed to mitigate degradation, improve management skills and ensure sustainable development, the implementation of these policies remains limited and ineffective to solve severe problems or to eliminate the main source of the problem.

It is obvious that the high risk of conflict in transboundary basin is related to the perceptions of riparian states. Because of the increasing number of actors with different priorities, problems become more complicated. In this context, inequalities and injustice concerning water share and dominance of the powerful actor affect the relations in the basin and indeed the structure of cooperation. In order to mitigate the threat of conflict on transboundary waters, cooperation seems like an essential tool; but without changing fundamental inequalities, cooperation would also be ineffective to solve the interconnected problems. For a well-functioning cooperation to solve the essential problems, the adequate and equitable sharing of waters plays an important role; nevertheless it could also be claimed that the cooperation with an ecological security perspective could determine common interests for all riparian states in the framework of ecological sustainability. In this context, the most crucial challenge to improve the transboundary cooperation is to define common interest without causing the conflict of interests. Although ecological problems threaten all riparian countries, sometimes states use these potential risks to weaken the other parties. Furthermore, the structure of the cooperation could be limited and it could be difficult to convince the parties to take part in this cooperation based on mutual benefits.

However, it must be mentioned that the cooperation in transboundary basins are generally pursued on intergovernmental level. Even though multi-stakeholder participation or integrated management are accepted in principle, only in states where democracy is authentically functioning, participative mechanisms can be applied. In general governmental actors are active in decision-making process. This situation reflects state-centric approach to the transboundary issues. As state interest is prioritised over common interest, the participation of local people or organisations that are directly affected by the changes in the basins is excluded from decision-making process although international conventions and cooperative initiatives encourage this principle. In particular in autocratic or semi-autocratic states local people's demands or reactions and ecological concerns are mostly neglected.

Regarding power relations in the basins, the position of the most powerful actor becomes crucial. In some cases, even though the hegemonic power of the basin does not participate in the cooperation process, the cooperation could be pursued; nonetheless the participation of powerful actor influences the effectiveness of decisions. However, the role of the powerful actor, who usually controls the upstream, could also be controversial. It can use its power on the river as leverage in order to protect its interests; so the cooperation process could also be used by this actor to improve its position and to increase its influence on other parties. Nevertheless, it is possible that if this actor's environmental regulations are relatively better than other parties, it could use its power to develop multilateral cooperation for ecological conservation of the resource. Furthermore, if the basin is part of an integration process, improvement of cooperation becomes easier and the outputs of cooperation become more effective. The initiative of powerful actors (sometimes rivals) facilitates initiation of cooperation. Despite these facts, it is obvious that the lack of trust between riparian countries and the priority of national interests complicate to reconcile on common interests and to solve transboundary problems in an adequate way.

Therefore, regarding environmental problems, the institution responsible for cooperation have different regulations or projects to ensure sustainability, mitigate impacts of climate change and preserve ecosystem. NBI also try to encourage member states to improve their environmental regulations and acts to protect the basin; but these remain as recommendations and they cannot become legally binding because NBI do not have the

authority to apply sanctions over state sovereignty. It is also necessary to develop coordination and cooperation mechanisms not only between riparian states, but also between local, regional and global institutions to cope with severe environmental problems. States -in particular semi-autocratic states- are not willing to apply these multi-lateral policies because they usually perceive these as a threat to their authority. Despite the transboundary impact of ecological problems it is obvious that riparian states generally do not consider the importance of interdependency. This might be the result of a lack of ecological perspective without which it is hard to tackle and solve essential problems, and to develop an effective cooperation. Even if some of the riparian states have implied environmental aspects to their security strategy, transboundary environmental problems remain unsolved and are still perceived as a security threat. Nonetheless, despite the insufficiencies, the cooperative institution could play a balancing role between conflicting interests of riparian states and it can also be argued that the cooperation might build a common security perspective for gathering all riparians around the same cause for maintaining ecological stability and the sustainability in the basin. This approach integrating political, social, economic and environmental concerns in the basin could consider not only riparian states' interests but also riparian populations' demands and needs of other species. If riparian states and cooperative institution adopt ecological security approach, the integrity of the basin could be more easily comprehended and the cooperation started at ecological level could be widened and deepened. The dialogue created between riparian states could eventually eliminate the risk of conflict. The cooperation prioritising the ecological security could hence contribute to transboundary basins' common good and regional peace as well. On the other hand, this analysis could be criticized because of the "securitisation" risk, but treating ecological problems as a security issue does not mean that ecological problems should tackle with conventional security tools. On the contrary, it is obvious that ecological problems have created unexpected transboundary threats which affects not only ecosystems but also social, economic and political systems. Ecological security approach thus ensures that the riparian states develop integrated policies through the cooperation. States could be accepted as rational actors. In the transboundary basins, the most rational act by riparian states could be to protect and increase their interests. However, due to the shared resource, interests as well as threats are interdependent. The cooperation between riparian states is necessary to eliminate these transboundary threats and a cooperation based on ecological priorities could help to maintain stability and integrity in the basin. As the instability is one of the most destructive threats for national security, the development of cooperation with an ecological security perspective could be assessed as a rational choice to avoid the conflict and to protect the national interests.

Conclusion

Water, as the source of life on Earth, could become at the same time a source of conflict and insecurity. Degradation of water resources like other ecosystems due to anthropogenic harms such as pollution, overuse or the impact of climate change have been creating an unprecedented threat with multi-dimensional effects. Even though water related problems have been linked mostly to state security, this perspective has started to be changed in 21st century's world. The importance of water for life and the pursuit of ecological cycles that guarantees the functioning of ecosystems shifted the global agenda in order to cope with deepening interdependent problems and new challenges. In this context, ecological security is one of the new approaches that offer a new perspective to environmental problems by changing classical security agenda. In an ecological perspective, the nature is the core value; ecological approach underlines the interconnections, mutual benefits and harms with the aim of dealing with the main cause of the environmental issues and related security problems. Especially by improving water security concept which is accepted as an important tool for ensuring social, political, economic and environmental stability, it is possible to set new regulations for management and protection of water resources. Moreover, regarding transboundary waters which have been at the focus of security and conflict studies, it is argued that ecological security approach would deepen cooperation instead of conflict between riparian states, and also improve the natural condition of watercourses as ecological entities.

In this perspective, the Nile Basin as a transboundary river with its potential of conflict and cooperation is examined in order to discuss the possibilities and difficulties to elaborate ecological security. It is obvious that transboundary water issues have generally been linked to state politics or positions regarding state interest, even though international conventions suggest a balanced structure considering ecological priorities, social development and state's sovereignty. The Nile case shows that despite conflicts or disagreements between

riparian states, transboundary cooperation with the aim of environmental protection could be built and it can be functional for solving the transboundary problems. However, whilst there are no coercive mechanisms or binding regulations towards cooperation and protection, different challenges to the ecological integrity and security in the region continue.

Even though the riparian states' interests have mostly been controversial, transboundary impacts of ecological degradation and interconnection between ecological, socio-economic and political problems necessitate the cooperation and elaboration of a common perspective. It could be suggested that ecological security which considers natural resources as an independent entity and aim to ensure the safety of common interests, would help to solve existing problems in transboundary basins through the cooperation. Transboundary cooperation might be improved by applying strict regulations and sanction mechanisms to rebuild ecological balance, by constructing more egalitarian, equitable and fair use -principals agreed by international conventions- of transboundary resource. Moreover, ensuring the multi-level participation in decision making process, especially of groups most vulnerable to the risks of ecological security is another option for the improvement of ecological cooperation. In sum, cooperation between riparian countries instead of competition would be an important step towards conservation, equitable sharing and inheritance to next generations of these vital resources. Ecological security of the transboundary river maintained by cooperation could become the keystone of egalitarian, ecological and fair regime that would ensure equitable use of water resources. Hence, if security concerns prioritise interdependent ecological problems instead of states' interests or strategic superiorities, cooperation in transboundary basins might solve ecological, socio-economic and political problems, contribute to ensure regional stability and peace between riparian states and protect ecological integrity of the transboundary resource. Adoption of ecological security approach by riparian states could transform political choices towards common interests and cooperation for sustainable protection of natural resource and peace at the basin level as well. So the cooperation developed with ecological concerns would be a win-win situation through which all riparian states could protect their interests by reaching a consensus.

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Özet

Türkiye'deki motorlu taşıtlar vergisinin servet vergisi-çevre vergisi ikileminde kalması ve vergi adaletini tam olarak sağlayamaması bu çalışmanın temel hazırlanma amacıdır. 2017 yılında kabul edilen 7061 sayılı Kanun ile otomobil, arazi taşıtı ve kaptıkaçtılar için yaş ve motor hacmi ölçütlerine ilave olarak "taşıt değeri" ölçütünün getirilmiş olması motorlu taşıtlar vergisinin servet vergisi tarafını güçlendirmiştir. Ancak söz konusu değişiklik sorunların çözümü noktasında yetersiz kalmaktadır.

Çalışmada, motorlu taşıtlar vergisi ile ilgili vergileme ölçütleri ortaya konularak, Denizli ilindeki motorlu taşıtlar vergisi mükelleflerinin bu konudaki tutumlarına ve görüşlerine yer verilmektedir. Elde edilen temel sonuçlara göre, mükellefler motorlu taşıtlar vergisini çevre vergisinden ziyade servet vergisi olarak görmektedir. Bunun dışında, mükellefler motorlu taşıtlar vergisi yükünü ağır bulmakta ve motorlu taşıtlar vergisinin araçların gerçek piyasa değerleri üzerinden alınması gerektiğini düşünmektedirler. Mükelleflerin vergi adaleti ile ilgili algıları ise, motorlu taşıtlar vergisi yükünün adil bir şekilde dağılmadığı yönündedir. Yaş, cinsiyet, medeni durum, eğitim durumu ve gelir seviyesi gibi demografik değişkenler ile mükellef tutumları arasında ilişki irdelendiğinde ise, özellikle cinsiyet faktörünün mükellef tutumları üzerindeki etkisinin daha belirgin olduğu görülmektedir.

Anahtar Kelimeler: Servet vergisi, Motorlu taşıtlar vergisi, Spesifik vergi, Mükellef tutumları.

EVALUATION OF TAXPAYER ATTITUDES TOWARDS MOTOR VEHICLE TAX:DENİZLİ PROVINCE EXAMPLE

Abstract

The main purpose of this study is to show that motor vehicle tax in Turkey is in the wealth tax-environmental tax dilemma and that tax justice cannot be fully achieved. With the Law No. 7061 issued in 2017, the addition of the "vehicle value" measure in addition to the age and motor volume criteria for automobiles, land vehicles and station wagon cars has strengthened the wealth of motor vehicles tax. However, the issue is insufficient at the point of solving the problems.

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