

The concept of hydrohegemony as a framework for analyzing transborder conflicts over water. Thinking about the Chinese case

El concepto de hidrohegemonia como marco de análisis de los conflictos transfronterizos por el agua. Pensando en el caso Chino

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Abstract — Water is an essential resource, it is at the basis of human civilization and human life, and it also is an important geopolitical factor, in particular in the present worldwide condition of increasing scarcity. Therefore, can transboundary waters at the river basin level, which constitute the majority of freshwater basins, be considered a source that strengthen cooperation among states or a cause of international conflicts? This issue has been largely discussed in the academic literature since the 80s, following the Neo-Malthusian reasoning coupled with a realist approach. However, these arguments merely allow for the depoliticisation of the concept of water security, and do not reflect the realities of water politics. In order to understand states' hydrobehaviour in transboundary water arrangements at the international level, a framework based on concepts such as hydrohegemony should be adopted to allow for the analysis power asymmetries both at the domestic and international level. To further understand the role that hydrohegemony and power asymmetry play in international water-relations, the case study of China's hydrobehaviour is taken under analysis, specifically in the region of the Mekong River Basin. China is one of the world's major raising powers, has exhibited high rates of economic growth, and is heavily dependant on natural resources, and in particular water. As water scarcity is affecting its development, China has shown behaviours pertaining to an 'hydrohegemon', making it a particularly interesting case to investigate.

Resumen — El agua es un recurso esencial por la vida humana, y también es un factor geopolítico importante, en particular en la actual situación mundial de incipiente escasez. En ese sentido, cabe preguntarse en qué medida las cuencas hidrográficas transfronterizas pueden considerarse una fuente de cooperación entre los Estados o una causa de conflictos internacionales. Esta cuestión se ha discutido en gran medida en la literatura académica, desde las hipótesis de la "guerra del agua" hasta las de la "paz del agua". Este estudio adopta el marco de la hidrohegemonía para analizar las asimetrías de poder en la asignación de agua entre los Estados ribereños. En él se analiza el caso de estudio de la hidroconducta de China, en concreto en la región de la cuenca del Río Mekong, en la que se presentan características que facilitan la investigación de la hidrohegemonía en las relaciones internacionales contemporáneas.

Keywords: Hydropolitics, Hydrobehaviour, Hydrohegemony, China, Power asymmetries **Palabras clave:** Hidropolítica, Hidroconducta, Hidrohegemonía, China, Asimetrías de poder

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INTRODUCTION

Water is an essential resource, it is at the basis of human civilization and human life, and it also is an important geopolitical factor, in particular in the present worldwide condition of increasing scarcity. It has been argued that transboundary waters at the river basin level, which constitute the majority of freshwater basins, are particularly at risk of becoming source of tensions and possibly violent conflicts. Repeatedly acts as a generator of conflicts in which you can observe various power relations, dependence and solidarity between the litigants. Conflicts that are generated in a beginning for appropriate their use but, then, many of them reveal other strategic interests. These disputes are more frequent in rural areas and suburban than in the urban. The existence, abundance, scarcity or absence of the vital liquid is a determinant of the price of the land and a variable of fluctuations in the circulation of the same¹.

Since the 80s both politicians and academics in the security field have warned about the dangers of water deficiencies and have made bold statements about incoming water wars, often following the Neo-Malthusian reasoning coupled with a realist approach. However, these arguments merely allow for the depoliticisation of the concept of water security, and do not reflect the realities of water politics. This article argues that in order to understand states' hydrobehaviour in transboundary water arrangements at the international level a relatively new frame working should be taken into consideration, in order to go beyond the dichotomy "water war"/ "water peace" hypotheses. The hydrohegemony framework is adopted to allow for the analysis power asymmetries both at the domestic and international level, interconnecting the concepts of power, hydrohegemony and coexistence of conflict and cooperation. Hydrohegemony can be loosely described as a state, riparian of a basin, being successful in rendering a particular discourse the status quo, preserving its interests and adopting its favored mechanisms of transboundary water management (as described in Warner et al. 2017) at the expenses of the other riparians (in a voluntary or forced basis). Hydrohegemony is a multilayered concept, composed by different facades, and in this article it is understood as including both forms of dominance and forms of leadership, and their in-betweens, as it is often difficult to have a clear-cut situation. Hydrohegemons base their power not only on their riparian position, but most importantly on their political and economic power, to lead (or dominate) fellow lower riparians into achieving their interests. To further understand the role that hydrohegemony and power asymmetry play in international water-relations, the case study of China's hydrobehaviour is taken under analysis. China is one of the world's major raising powers, has exhibited high rates of economic growth, and is heavily dependant on natural resources, and in particular water, both for its growing industry and domestic use. China's hegemonic behavior has proved to give priority to its own geopolitical interests over ideology. As water scarcity is affecting its development, China has shown an interest in controlling transboundary water sources, employing unilateral approaches in building dams and adopting water diversion plans, as well as, for the greater part, rejecting significant institutionalized water-sharing cooperation, whether bilateral or international, arguably becoming a possible threat for lower riparian neighbors, as exemplified by its hydrobehaviour in the Mekong River Basin. The case study of China is particularly interesting as China's hydrobehaviour shows different characteristic, pursuing neither militarized conflict not friendly relations, and simplifications of causal water management outcomes cannot be made. In fact, the academic literature over it is often split over its analysis, of whether it can be considered a leader, or a dominant actor in the contemporary international relations arena, and in this paper. I will demonstrate now how it can be fruitful to apply the hydrohegemony framework to the case study of China and its hydrobehaviour.

RELEVANCE OF WATER TO THE FIELD OF SECURITY

There is not a more important, and at the same time banal, element than water². Water, and in particular freshwater, is the only source of which there is no substitute, and is an essential element for human existence. All societies have an overwhelming, constant and immediate need for it³ and its presence or absence has a direct impact on the society's "vulnerability, risk and stability"⁴. Water covers the great majority of the world surface, but most of it is either saltwater (97.5%) or locked in ice caps and glaciers (1,75%), which results in only 0,007% being available for human use⁵. Demands for freshwater are ever growing, and its increasing scarcity, due to over-abstraction, climate change, pollution, and the fact that agriculture takes 70% of freshwater resources⁶ led to an increase in 'water stress' (as coined by Falkenwark)⁷, and in intense political pressures. Furthermore, the majority of water basins are transboundary: there are 263 lakes and river basins and untold number of aquifers that are shared by two or more countries worldwide⁸, resulting in many cases in which there are competing interests for water resources. Rivers, in particular, have a peculiar tendency that can be referred to as the 'unsettlement of the settled', since their flows are not constant, but determined by seasonal variations and usage⁹.

Therefore, water is an important geopolitical factor, and some argue¹⁰ that it has become the new world strategic objective, as water shortages are affecting more and more countries, in particular in North Africa and Western and South Asia¹¹. The way water resources are managed is vital to promoting peaceful cooperation and sustainable development and, particular attention should

² Prodi, 2013.

³ Wolf, 1999.

⁴ Petersen-Perlman, Veilleux & Wolf 2017, 108.

⁵ UN, 2003.

⁶ UN, 2003.

⁷ Cited in Wolf 2007, 242.

⁸ UN, Water, 2017.

⁹ Sinha, 2012, 43.

¹⁰ Neglia & Elia 2009.

¹¹ UN, 2003.

¹ Ferreyra 2017, 31.

be given to transboundary water supplies, as they have "the potential to cause social unrest and spark conflict within and between countries"¹². As a consequence, the relationship between water and security has been frequently assessed, either at the level of state security, environmental security, or human security, and various scholars (between the most influential ones are Cooley 1984; Barnett 2000; and Wolf 1998, 2000, 2007 and Zeitoun and Warner 2006, part of the London Water Research Group) have contributed to debates on water politics. The aim of this article is, firstly, to enrich the debate in water politics about transboundary water conflicts, starting from an overview of the water war and water peace hypothesis and highlighting their critiques, finally conceptualizing the role of power and hegemony to understand power asymmetries and the hegemonic nature of riparian relations. Secondly, by adopting the hydrohegemony framework, this article will assess the dynamics of China's hydrobehaviour.

THE 'WATER WAR' HYPOTHESIS

The water potential as a catalyst for conflict, and in particular armed conflict, has been warned throughout the years by media and politicians, practitioners in international organizations and scholars, coming to create the so called 'water war' hypothesis. Interestingly, the English word 'rival' and 'river' share a etymological nexus; the word 'rival' comes from the Latin *rivalis*, meaning "one living on the opposite bank of a stream from another"¹³. Reinforcement of the water war thinking in the political field have been occasional, but still reflecting the predominant view during the 80s and 90s, and some are advocating for it till recent times.

In 1985 the Egyptian Foreign Minister and later United Nations Secretary-General Boutrous Boutrous-Ghali predicted that "[...] the next war in the Middle East will be fought over water, not politics", and in 1995 the World Bank Vice President Ismail Serageldin declared that "[...] many of the wars this century were about oil, but those of the next century will be over water". More recently, UN Secretary-General Ban Ki-moon stressed that water scarcity has created "a high risk of violent conflict"¹⁴ and the ex-UN Secretary-General Kofi Annan stated in 2001, that "fierce competition for freshwater may well become a source of conflict and wars in the future" even though in 2002 he proclaimed that water problems could be a "catalyst for cooperation". Finally, in 2013, the Italian politician and academic Romano Prodi forecasted tensions and conflicts over war that could become serious wars over the next decades.

In the academic fields, a myriad of authors supported the water war hypothesis, some of the most prominent contributions being Cooley's *The war over water* (1984, first article published in this field), Starr's (1991) *Water wars* and Remans' *Water and War* (1995). These authors advocated for water scarcity being one of the greatest threats in international security and warned for a warfare between nations to secure its control in near future. Many of the arguments¹⁵ agreed on the 'poorly developed, contradictory and unenforceable' nature of the international law frameworks that regulate transboundary water basins, and they focused mostly on the Middle East and the potential conflict between Arabs and Israelis.

The water was hypothesis is underpinned by a realist characterization, as explained by Naff

"In sum, the strategic reality of water is that under circumstances of scarcity, it becomes a highly symbolic, contagious, aggregated, in-tense, salient, complicated, zerosum, power- and prestige-packed issue, highly prone to conflict and extremely difficult to resolve." ¹⁶:

Following the Neo-Malthusian logic (according to which resources are limited, and population growth will lead to declining per capita availability of vital resources and to environmental degradation), coupled with the realist argument that people will fight over the control of these scarce resources, authors in the environmental security field¹⁷ attempted to demonstrate the environment-conflict causal link. In particular after the post-Cold War period, as the security agenda broadened to include new paradigms, such as human and environmental security, the 'water war' arguments were particularly welcomed¹⁸.

CRITIQUES TO THE 'WATER WAR' HYPOTHESIS AND ALTERNATIVE FRAMEWORKS FOR THE ANALYSIS OF WATER POLITICS

However, the Neo-Malthusian prediction of water wars revealed to be part of an over simplistic deterministic reasoning, as no evidence of causal link between water scarcity and armed conflict has ever been found¹⁹. Barnett argues that the issue of resource scarcity is more economic rather than environmental, and that a potential conflict over it would be "the result of a failure of politics to negotiate a settlement over the shared use of water". The understanding of water politics in a Malthusian 'state of nature' rhetoric, would, in fact, deny "responsibility or peaceful action and justify violence in lieu of meaningful dialogue"²⁰.

Critiques to the 'water war' hypothesis have been made in regards to the implausibility of water deficiencies being the sole, or principle, cause of violent conflict at the international level²¹ and the importance of addressing the differences between the 'varying intensities of conflict'²² that could arise from disputes over water. Wolf²³ argues that 'water dispute' would be more appropriate in identifying those cases in which water was the explicit cause of military action, and research made in 2010 (De Stefano *et al.*) found that between 1948 and 2008 there were only 38 'acute' disputes involving water, with none occurring after 1970. Indeed, Wolf²⁴ claim the last 'water war' occurred between the Mesopotamian city states of Lagash and Umma around 4.500 years ago. It must be also

¹⁹ Stucki, 2005. McMahon, 2017.

²¹ Barnett, 2010. Warner et al., 2017.

¹² UN, Water, 2017.

¹³ According to the Oxford Dictionary, as cited in Stucki, 2005, 42

¹⁴ Citing a report by the International Alert, as reported by UN News 2008.

¹⁵ Cooley, 1984. Remans, 1995. Starr ,1991. Cited in Wolf, 1995, 151.

¹⁶ Naff, 1992, 25.

¹⁷ Such as Gleick, 1993. In Stucki, 2005, 19.

¹⁸ Stucki, 2005.

²⁰ Barnett, 2000, 276.

²² Zeitoun & Warner, 2006, 436.

²³ Wolf, 2000.

²⁴ Wolf, 1998.

noted that water 'disputes' occur at multiple scales, and are actually more likely to arise at the national or regional level, rather than international, and therefore the term 'war' would be inappropriate to describe them²⁵.

Furthermore, Wolf, Yoffe, and Giordano conducted a study, Basins at Risk (2003), in which they catalogued over 1800 events involving water conflict and cooperation between nations from 1948 to 2000 and discovered that cooperative episodes outnumbered conflictive ones by over two to one. In fact, there have been over 650 treaties related to water have been signed since 1820²⁶. However, there has been slow progress on codifying principles on non-navigational watercourses in international law. Among the most important cornerstones to take note of are the Helsinki Rules (1966), which established the rule of 'equitable and reasonable utilization' as a customary international river law, and building on those, the Convention on International Watercourses by the United Nations, adopted in 1997 but only entered into force in 2014, as well as the UNECE Water Convention, a legal framework for transboundary water cooperation worldwide, initially only open to countries in the pan-European region but globally available since 2003²⁷. Important examples of water cooperation agreements are the one made between India and Pakistan in 1960, and the peace treaty of 1994 between Israel and Jordan.

However, around two-thirds of the world's transboundary rivers do not have a cooperative management framework²⁸. Zeitoun and Mirumachi²⁹ pointed out that cases of water cooperation "did not necessarily warrant or lead to peaceful or benign outcomes". Cooperation may, in fact, result to be forced rather than voluntary, and power imbalances could be solidified in agreements. Furthermore, the sole presence of international organizations and of signatures under a treaty does not guarantee cooperative behavior³⁰.

THEORIES OF HYDROHEGEMONY

Although wars over shared water resources are not likely to happen, water, because of its increasing scarcity, is considered a strategic source at the international level. In particular, transboundary waters are remarkably difficult to manage, and require "a more complete appreciation of the political, cultural, and social aspects of water"³¹ that goes beyond the simplistic, dichotomous understanding of either conflict or cooperation. The London Water Research Group³² recognized the central role of politics in water issues and suggested that both conflictive and cooperative realities at the river basin level could coexist at the same time. They proposed an understanding of the hydrobehaviour of states by adopting an hydrohegemony framework and power (and political) analyses.

- ²⁶ TFDD, 2016. In Petersen-Perlman, Veilleux & Wolf, 2017.
- ²⁷ Petersen-Perlman, Veilleux & Wolf 2017, 113.

- ²⁹ Zeitoun & Mirumachi, 2008. In Warner et al., 2017, 2.
- ³⁰ Keller 2012. In Warner et al., 2017, 2.
- ³¹ Wolf, 2007, 245.

Hydrohegemony is hegemony at the river basin level, and can be defined as: "

the success of a basin riparian in sedimenting a particular discourse, which preserves its interests, impedes changes to the status quo, and adopts its preferred mechanisms of transboundary water management³³.

However, it should be noticed that there is not yet an academic around the consensus concept of hydrohegemony, and the term is often loosely used, with no clear definition or theorization. From an etymological point of view, 'hegemony' derives from the Greek word 'hegeisthai', 'to lead', and therefore can be understood as leadership supported by authority, in contrast to dominance, which can be understood as leadership supported by coercion³⁴. For the sake of this article, hegemony will be conceived as a multilayered concept that includes both forms of leadership and forms of dominance, as the two are often intertwined.

Hegemonic riparians are primarily determined by the degree of control over water resources that they attains, and their power relationship with weaker riparians are, even more than their geographical position, fundamental in determining their behaviour $^{35}\!\!\!\!$. \bar{I} am now, therefore, going to briefly define the concept of power, as it applies to international relations. Dahl³⁶ defined power as "A's capacity to make B do what B would otherwise not do". Building on this definition, Daoudy³⁷ and Turton³⁸ distinguished between two broad forms of power: puissance (the potential power) and pouvoir (the actualized power). The concept *pouvoir* can be further deconstructed into three levels, as famously theorized by Lukes³⁹: the decision-making power, as in the power to 'win the game' by being able to possess and to mobilize capabilities, also referred to as 'hardpower'- e.g. a state's riparian position, size and value of territory; the nondecision-making power, as in the power to set the agenda by controlling 'the rules of the game', stripping the weaker party of the ability to choose between compliance or noncompliance with the stronger party's commands, referred to as the 'bargaining power'; and, finally, the ideological power, as in control over discourse, interpreted as a naturalized 'common sense'⁴⁰. To understand the arguments that lead us to opt for the territorial approach in the analysis of water problems, it is necessary to analyze what we understand by territory in the transformative sense as a dimension of appropriation and control of a portion of the space by private agents, with differentiated positions in power relations. This appropriation or control includes not only the material dimension of the space but also the political and symbolic-cultural dimension⁴

This last feature of power coincides with Lustick's⁴² fourth compliance-producing mechanism: ideological

³⁶ Dahl, 1965. In Zeitoun and Warner, 2006, 436.

⁴² Lustick's, 2002. In Zeitoun & Warner, 2006, 438.

²⁵ Wolf, 2007, 245.

²⁸ UN, Water, 2017.

³² Warner et al., 2017.

³³ Warner et al., 2017, 2.

³⁴ Zeitoun & Warner, 2006, 437.

³⁵ Zeitoun & Warner, 2006, 436.

³⁷ Daoudy, 2005.

³⁸ Turton, 2005. In Zeitoun & Warner, 2006, 442.

³⁹ Lukes, 1974.

⁴⁰ Warner et al., 2017. Zeitoun & Warner, 2006.

⁴¹ Chiavassa et al., 2017, 46.

hegemony, built on the theoretical work of A. Gramsci on hegemony, which is the hegemonic power based on ideas and consent. Ideological hegemony does not consist in a mere acceptance of the hegemon's authority, but in the adoption and internalization of the hegemon's values and norms by subordinate actors. If these powers are present within the hegemonic state, the state in question becomes "the dean of world politics, the administrator, regulator and geographer of international affairs"⁴³.

Theories of hegemony attempt to explain how groups with power, hegemons, can maintain their position of control other than through violent conflicts, which, as seen before, are a rarity in water politics. Under the hydrohegemonic framework, cooperation in water politics is explained by the compliance of non-hegemonic states with the order preferred by the hegemon, whose superior power position effectively discourages any violent resistance against the order⁴⁴. However, even though the hydrohegemon will always ensure a positive outcome for itself, the modalities in which it enforces its hegemony can range from a positive form of 'enlightened leadership', to a negative form of dominance. In the former, the upper riparian is perceived in a positive way by providing stability and benefits for all (or almost all) lower riparians⁴⁵, whereas in the latter the upper riparian may seek to attain and consolidate maximum control of water resources through unilateral actions. In this case, the weaker state's 'rights' to water may be perceived to be denied to them by the hydrohegemon, possibly leading lower riparians to generate counter hegemonic discourses and strategies 46 .

As described in Zeitoun and Warner⁴⁷, the hydrohegemon will adopt control strategies in order to maintain their status and perpetuate existing power asymmetries through an number of tactics, such as securitization, sanctioned discourse/knowledge construction, coercive resources, international support, financial mobilization, riparian position (upstream or downstream) and the use of dams. The hydrohegemony theoretical framework and analysis of power asymmetries applies to those situations characterized by neither militarized conflict not friendly relations, where simplifications of causal water management outcomes cannot be made, and I will demonstrate now how it can be fruitful to apply this framework to the case study of China and its hydrobehaviour.

CASE STUDY: A HYDROHEGEMONIC ASSESSMENT OF THE CHINESE HYDROBEHAVIOUR

China has an history of water projects and water control through taming rivers that dates back nearly 5000 years, to the Yu the Great of the Xia Dynasty (2205 $BC)^{48}$. Even more, after the communist took power and the People's Republic (PRC) was founded in 1949, several large-scale water projects were promoted and water

control became part of the popular political consciousness⁴⁹. However scholars ,such as Rogers and Crow-Miller in 2017, have highlighted the fact that China's hydrobehaviour extends well beyond large dams, encompassing political negotiation over "interbasin transfers, transboundary issues, the management of water pollution, and the supply and use of water in varied agricultural environments" (p. 1). In a complex, hierarchical governance system, in which there is a multiplicity of actors involved in both market and nonmarket transaction, the access and consumption of water practices in China affects more than a billion citizens in an increasingly unequal society⁵⁰.

Brahma Chellaney, author of *Water: Asia's New Battleground* and an analyst at Centre for Policy Research in New Delhi analysed the impacts of China's dambuilding projects beyond China, calling China's behaviour 'hydrohegemony'. In fact, after forcibly occupying the Tibetan plateau, where Asia's main river systems originate from, and the Xinjiang, where the rivers Irtysh and the Illy have their origins, China became the country source of the most transboundary river flows in the world⁵¹. Before then, China had only 22 dams of significant size⁵², and had it not been for Tibet, China would not have had the independence that it enjoys today. The classic lines read:

"He who holds Tibet dominates the Himalayan piedmont; he who dominates the Himalayan piedmont threatens the Indian subcontinent; and he who threatens the Indian subcontinent may well have all of South-East Asia within his reach, and all of Asia"⁵³.

Today China counts 90.000 dams, if all sizes and types are counted⁵⁴, and its interests are shifting from internal rivers (which are increasing drying, like in the case of the Yellow River) to international transboundary ones, posing a threat to neighbor countries with which these rivers are shared with - such as the Brahmaputra River, which flows from the Tibetan Plateau to a great part of South Asia⁵⁵.

Moreover, water resources in Asia are decreasing, and water deficiencies are one of the greatest challenges. The Asian Society (2009) reports that one out of five persons (700 million) does not have access to safe drinking water and half of the region's population (1,8 billion) lacks access to basic sanitation. Within the Asian continent, China is particularly water insecure: two-thirds of China's 669 cities suffer from water shortages and over 300 water⁵⁶. million lack access to clean drinking Additionally, the rising demands in the energy and in the food industry sector, which are highly dependent on water, are increasingly pressuring the country's economy into solving its resource dilemmas. Environmental minister Zhou Shengxian said in February 2011, "[...] in China's thousands of years of civilisation, the conflict

⁴³ O'Tuathail & Agnew, 1999, 82.

⁴⁴ Zeitoun & Warner, 2006.

⁴⁵ Keohane, 1982, 326, and Frey, 1993, 65. In Zeitoun & Warner, 2006, 439.

⁴⁶ Zeitoun & Warner, 2006.

⁴⁷ Zeitoun & Warner, 2006.

⁴⁸ Sinha, 2012, 45.

⁴⁹ Sinha, 2012.

⁵⁰ Rogers & Crow-Miller, 2017.

⁵¹ Chellaney, 2016.

⁵² Chellaney, 2016.

⁵³ Ginsburg & Mathos, 1964. In Sinha 2012, 48.

⁵⁴ Chellaney, 2016.

⁵⁵ Chellaney, 2011. Sinha, 2012.

⁵⁶ Gang, 2009, 7.

between humanity and nature has never been a serious as it is today"⁵⁷.

Even though recently the ex-Premier Wen Jiabao has stressed the fact that China would never seek hegemony when it becomes a developed country (in an interview with Malaysian and Indonesian media)⁵⁸, this paper argues that China's hydrobehaviour can be understood and analysed as hegemonic. As stated before, geographically, China is the source country of several of the most important rivers in Asia, such as the Yangtze, Mekong, Yarlung-Tsangpo, Indus, Irrawaddy, Sutlej and the Salween River⁵⁹. As the largest source of transboundary rivers in the world, China has an hydrological advantage to use and control waters pursuing policies of selfpreservation, which could imply externalities for neighbour countries. As explained above, hegemony is determined by power, and China's power does not stand solely in its upper riparian position, but also in its significant military, economic and demographic power, which gives them significant leverage over lower riparian neighbour countries. It can be argued therefore that China's behaviour and 'capacity to pressurise its neighbours and shape outcomes' 60 can be understood in the hydrohegemony framework.

Dr. Uttam Kumar Sinha, Research Fellow at the Institute for Defence Studies and Analyses, has examined China's hydrobehaviour on the lines of whether it can be considered peaceful or assertive (2012) and concluded that China's hydrological position and water utilisation behaviour has been, and can be increasingly described as 'hydro-arrogance' and 'hydro-egoism'⁶¹. China has shown to adopt a unilateralist approach to dam construction and water diversion plans on transboundary rivers, refusing to consult with lower riparian countries, behaviour which has been defined as 'non-confrontationist aggression' 62. China has been reluctant in sharing hydrological data or has been selective about it, and has endorsed a non-committal approach to water-sharing, refusing to agree to any legally binding commitment on water, whereas almost all of China's neighbors have agreed to international water agreements at least among themselves⁶³. Even though China's water resource ministry website states that "[...] China has built cooperation relationships with more than 60 countries, and signed water cooperation agreements and memorandum of understanding with 40 countries"⁶⁴, de facto China has never agreed to any significant bilateral riparian treaty and was one of the three countries that did not approve of the 1997 UN Convention on the Law of the Non-Navigational Uses of International Waterways⁶⁵. China's hydrological attitude can be exemplified by its behaviour in the Mekong River.

The Mekong River Basin is shared between six riparian countries: Cambodia, China, Laos, Myanmar,

- ⁶¹ Sinha 2012, 42.
- ⁶² Sinha 2012, 42.
- ⁶³ Sinha, 2012. Chellaney, 2011.
- ⁶⁴ Reported in Sinha, 2012, 48.

Thailand and Vietnam, all presenting different contrasting needs and interests. China is considered to have a strong position with regards to the Basin region, and it is often regarded as the leader, but in its investigation it is important to consider the typology of power, and of hegemony, taken under consideration, according to the different conceptualizations explained above. In fact, literature on the Mekong River Basin presents diverse stances, from pessimistic ones⁶⁶ to more optimistic ones⁶⁷, as reported in Rein⁶⁸ and in the following analysis.

On the one hand, less than a quarter of the river is located in China, but China withdraws 26 per cent of the waters annually⁶⁹ and is planning to build 8 dams on the river⁷⁰, which will undoubtedly have a widespread impact on the lower riparian states. There have been established a number of collaborative groups in the Mekong River Basin area, but authors such as Rein⁷¹ have argued that "the cooperation has not been strong enough in resisting the hydro-hegemony of China". For instance, China refused to become a full member of the Mekong River Commission (MRC), formed in 1995 to manage water disputes between riparian states of the Mekong River (Laos, Cambodia, Thailand and Vietnam). At the present moment China is only a dialogue partner of the MTC and over time it proceeded in developing hydropower from the Mekong River unilaterally, giving restricted informations and without transparency in its operations. Cooperation in the Mekong River Basin seems to have been rather weak, some of the main reasons being "a scattered network of many different groups, infrequent meetings, the lack of strict regulations, refusal of China and Myanmar to cooperate equally with other riparian states in the Mekong River Commission, contrasting interests and necessities among the non-hegemons"72. According to this data, China would therefore appear to behave in the 'hydroarrogant' and 'hydro-hegoist' way proposed by Sinha⁷³, forcing its interests on riparian states because of its dominant political and geographically-driven power.

In a way, a particular perspective on China's hydrobehaviour and the relationship it has with water and politics is presented by the government professor Andrew Mertha, who wrote the book *China's Water Warriors: Citizen Action and Policy Change* (2010), in which he investigates the way in which water-control projects, in particular hydro-power dam projects, have became a focal point for local political protests and actions in China. Mertha⁷⁴ asserts that "the control and management of water has transformed from an unquestioned economic imperative to a lightning rod of bureaucratic infighting, societal opposition, and open protest".

- ⁶⁹ Sinha, 2012, 50.
- ⁷⁰ Ho, 2017.

⁷² Rein, 2016.

⁵⁷ Cited in Sinha, 2012, 45.

⁵⁸ In Sinha, 2012, 45.

⁵⁹ Chellaney, 2016.

⁶⁰ Sinha, 2012, 41.

⁶⁵ Svensson, 2012.

⁶⁶ Haacke, 2013. Sinha, 2012. Li, 2012. Kirby et al., 2010. Fox & Sneddon, 2007. Collins, 2003. Hinton, 2000.

⁶⁷ Ho, 2016. Mertha, 2010. Schmeier 2009. Dinar et al., 2007. Onishi, 2007. Shambaugh, 2005.

⁶⁸ Rein, 2016.

⁷¹ Rein, 2016.

⁷³ Sinha, 2012.

⁷⁴ Mertha, 2010.

On the other hand, some scholars, such as D. Shambaugh and S. Verghese, argued that "Beijing's diplomacy is far more adept than actually appreciated, and that [...] most nations in the region now see China as a good neighbour, a constructive partner, a careful listener and non-threatening partner"⁷⁵. China did engage in multilateral cooperation in the region of Mekong as a member of the Greater Mekong Sub-region, and has initiated a Mekong forum, the Lancang-Mekong River Dialogue and Cooperation, that involves all six riparian states⁷⁶. Nonetheless, it should be noted that this cooperation is based on a national interest dictated by the internal politics of the area. Fox and Sneddon⁷⁷, analysing the effectiveness of 'cooperation' treaties and forums have taken the Mekong River basin as an example where "agreements are offered and legitimized as a means to advance ecological and human security, [but] they instead often promote state-centric environmental securitisation", asserting that (p. 239) "genuine environmental security is [...] being actively undermined by the codification of rules and principles contained in regional agreements", merely promoting the signatories' goals (e.g. hydroelectric production and irrigation expansion). It can be derived therefore that water politics, as an extension of the wider political sphere, is binded by the regional context, but overall the preexisting platforms of cooperation at the multilateral level have also enabled scholars⁷⁸ to argue that China has exercised, in this instance, a positive leadership in the Mekong region.

As it can be derived from this analysis, the phenomenon of hydrohegemony substantially influences transboundary water allocations in the Mekong River area, and the power asymmetries between China and riparian states determines the hydrohegemonic order of the river basin. China's behaviour as an hydrohegemon can be described as mixing both 'cohesion and compliance' with 'attraction and intimidation', paragonable to what Gramsci described as 'a mix of force and consent'79. More accurately, the present China's hegemonic path seems to be principally dominated by coercion and unilateral agenda setting (Luke's first and second dimension of power), but it has been argued⁸⁰ that in the next 30 years China will aspire to be a regional leader buttressed by authority and respect (possibly achieving ideological hegemony as well). At the moment, the non-hegemons often have tried to balance their position with China through collaborative agreements, often bilateral, but they often proved to have weak results. Clearly, the Chinese leadership sees water as a highly strategic source, fundamental in the process of seeking economic, and hence political, stability⁸¹.

CONCLUSION

In conclusion, this paper has sought to apply a (relatively) new framework to the classic

conflict/cooperation dichotomy present in the literature debates over transboundary waters. Water is an essential element in human life, and in the present condition of scarcity, competing interests over transboundary waters are a cause of water stress. A causal link between water scarcity and violent conflict has been drawn by many politicians and academics, who coupled a realist assumption with a Neo-Malthusian logic, resulting in a simplistic understanding of the environmental determinants of political violence and conflict. However, no causal relation between resource scarcity and conflict has been found so far, and many academics have critiqued the 'water war' hypothesis on the basis of historic accounts of cooperation in transboundary water basins, and arguing about the unidimensional and allarmistic nature of the so called 'wars', which are more probable to happen at the national level rather than international level. Going beyond war and peace thesis, state's hydrobehaviour can be better explained by theories of hydrohegemony and analysis of power relations, investigated in its different layers and multiple faces. In fact, the hydrohegemony theoretical framework and analysis of power asymmetries applies to those situations in the international relations arena that show neither militarized conflict not friendly relations, and where simplifications of causal water management outcomes do not apply. Applying this framework to the case study of China's hydrobehaviour, China has proved to be a dominant hydrohegemon, with contrasting rethorics. China's robust upper riparian position, as well as its military, economic and demographic power, coupled with its threatening water deficiencies, have led the country to use its hegemonic position for its own benefit, often adopting unilateral approaches and refusing legally binding commitments with lower riparian states, as proven by its behaviour in the Mekong River. China has proven to be willing to endorse multilateralism only when it coincides with its own national interests, and therefore it can be ultimately argued that China is leaning towards the exercise of a dominating degree of hydrohegemony rather than a positive one. The study of hydrohegemony is a fundamental aspect of the research on transboundary water allocations and cannot be neglected or undermined, as it helps to better explain and understand the typology of power of the different actors involved in international relations and the relationship's patterns between upper and lower riparian states. Cooperation and conflict exist on a spectrum in transboundary river basins, and effective (non dominant) cooperation is not merely based on the typical signing of a treaty or creation of a cooperation river basin initiative, but rather on compliance by all riparians, sharing goals, interests and problem-solving initiatives. This paper could have benefited from a cross analysis between different theoretical scholarships of international hydrobehaviours, and possibly a more specific analysis of China's hydrobehaviour in the past years, possibly conducting a on-field research in order to obtain data that is often difficult to find through a simple secondary data analysis. In order to better develop analytical theories of state's hydrobehaviours, the research on transboundary water allocation and state's hydrobehaviours can be further advanced by focusing on the different classifications of cooperation, focusing on nuances of the

⁷⁵ Shambaugh, 2005. Cited in Sinha, 2012, 43.

⁷⁶ Ho, 2016.

⁷⁷ Fox & Sneddon 2007, 237.

⁷⁸ Such as Ho, 2016.

⁷⁹ In Sinha, 2012, 51.

⁸⁰ Sinha, 2012.

⁸¹ Svensson, 2012.

different faces of cooperation. Further research could investigate the application of the hydrohegemony theory to other contexts and explore links between the theory of hydrohegemony and other water conflict theories, analysing the particularities and complexities of Chinese hydrobehaviours, as well as other upper riparians countries around the world.

BIBLIOGRAPHY

- Annan, K. 2001: March 1. "United Nations Secretary General Kofi Annan addresses the 97th Annual Meeting of the Association of American Geographers" [Transcript of speech]. Association of American Geographers.
- Annan, K. 2002: February 26. World's water problems can be 'catalyst for cooperation' says Secretary General in message on World Water Day.
- Asia Society. 2009: "Asia Next Challenge: Securing the Region's Water Future". *Leadership Group on Water Security in Asia*. pp.7-59.
- Barnett, J. 2000. "Destabilizing the Environment– Conflict Thesis". *Review* of International Studies. 26(2), 271-88, https://doi.org/10.1017/S0260210500002710
- Barnett, J. 2010: "Environmental security". The Routledge handbook of new security studies. New York: Routledge, 123-131.
- Boutrous Boutrous-Ghali 1985: "Talking Point: Ask Boutros Boutros Ghali". BBC News.
- Chellaney, B. 2011: *Water: Asia's new battleground*. Georgetown University Press, https://doi.org/10.1355/cs34-2j
- Chellaney, B. 2016: China's water hegemony in Asia. New Delhi Mint.
- Chiavassa, S.; Ensabella, B. y Deón, J. U. 2017: "Territorialidades en conflicto y acciones colectivas: las luchas por el agua en Sierras Chicas, provincia de Córdoba, Argentina", Agua y Territorio, 10, 43-57, https://doi.org/10.17561/at.10.3608
- Cooley, John Kent. 1984: "The war over water", *Foreign policy*, 54, 3-26, https://doi.org/10.2307/1148352
- De Stefano, L., Edwards, Paris, De Silva, Lynette, & Wolf, Aaron. 2010: "Tracking cooperation and conflict in international basins: historic and recent trends", *Water Policy*, *12*(6), 871-884, https://doi.org/10.2166/wp.2010.137
- Ferreyra, A. I. 2017: "El agua como factor de conflicto y determinante en el precio de la tierra: Córdoba, Argentina, 1800-1855", Agua y Territorio, 10, 30-42, https://doi.org/10.17561/at.10.3607
- Fox, C., & Sneddon, C. 2007: "Transboundary river basin agreements in the Mekong and Zambezi basins: Enhancing environmental security or securitizing the environment?", *International Environmental Agreements: Politics Law and Economics*, 7, 237–261, https://doi.org/10.1007/s10784-007-9036-4
- Gang, Ch. 2009: Politics of China's Environmental Protection: Problems and Progress. World Scientific Publishing CO: Singapore, https://doi.org/10.1142/7177
- Ho, S. 2016: "Big brother, little brothers': comparing China's and India's transboundary river policies". *Water Policy*, 18(S1), 32-49, https://doi.org/10.2166/wp.2016.103
- Keller, K. E. 2012: "Critiquing cooperation: transboundary water governance and adaptive capacity in the Orange-Senqu basin", *Water Resource Education*. 49:41–55, https://doi.org/10.1111/j.1936-704X.2012.03126.x
- Lukes, S. 1974: A radical view. London, https://doi.org/10.1007/978-1-349-02248-9
- McMahon, P. 2017: "Cooperation rules: insights on water and conflict from international relations", *Water Security in the Middle East: Essays in Scientific and Social Cooperation*, 1(19).
- Mertha, A. 2010: *China's Water Warriors: Citizen Action and Policy Change*. Ithaca, London, Cornell University Press.
- Naff, Th. 1992: "Water Scarcity, Resource Management, and Conflict in the Middle East", in E. Kirk (ed.), *Environmental Dimensions of Security: Proceedings from a AAAS Annual Meeting Symposium*. Washington: American Association for the Advancement of Science. pp. 25-30.

- Neglia, G. & Elia, F. 2009: "Oro azzurro: Guerra o Pace? Acqua, bene prezioso e mal distribuito", *Finis Terrae*. 2(3), 82-91.
- O'Tuathail, G. & Agnew, J. 1999: "Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy". *Political Geographical Quarterly* (11) 190–204, https://doi.org/10.1016/0962-6298(92)90048-X
- Petersen-Perlman, J.; Veilleux, J. & Wolf, A. 2017: "International water conflict and cooperation: challenges and opportunities". Water International, 42(2), 105-120, https://doi.org/10.1080/02508060.2017.1276041
- Prodi, R. 2013: L'acqua: pace o guerra nel XXI secolo Lezione di Romano Prodi. Radio Radicale. Milano [accessed on 11/06/2018, available at: http://www.radioradicale.it/scheda/378757/lacqua-pace-o-guerra-nelxxi-secolo-lezione-di-romano-prodi]
- Rein, M. 2016: "Power Asymmetry in the Mekong River Basin: The Impact of Hydro-Hegemony on Sharing Transboundary Water", *Vienna Journal of East Asian Studies*. 8, 127–162, https://doi.org/10.2478/vjeas-2016-0005
- Remans, W. 1995: "Water and war". Humantäres Völkerrecht, 8(1), 1-14.
- Rogers, S. & Crow-Miller, B. 2017: "The politics of water: a review of hydropolitical frameworks and their application in China". Wiley Interdisciplinary Reviews: Water, 4(6), https://doi.org/10.1002/wat2.1239
- Serageldin, I. 1995: Many of the wars this century were about oil, but those of the next century will be over water., Newsweek
- Sinha, U. K. 2012: "Examining China's Hydro-Behaviour: Peaceful or Assertive?". Strategic Analysis, 36(1), 41-56, https://doi.org/10.1080/09700161.2012.628487
- Starr, J. 1991: "Water wars". Foreign policy, (82), 17-36, https://doi.org/10.2307/1148639
- Stucki, Ph. 2005: Water Wars Or Water Peace?: Rethinking the Nexus Between Water Scarcity and Armed Conflict. Programme for Strategic and International Security Studies-Graduate Institute of International Studies.
- Svensson, J. 2012: Managing the Rise of a Hydro- hegemon in Asia: China's Strategic Interests in the Yarlung-Tsangpo River (Vol. 23). Institute for Defence Studies and Analyses.
- United Nations News. 2008: At World Economic Forum, Ban Ki-moon pledges action on water resources. UN News Center. (24.01.2008)]
- United Nations Water. 2017: Transboundary Waters, United Nations Water Website
- United Nations. 2003: *Water: A Matter of Life and Death*, International Year of Freshwater 2003. Fact Sheet
- Warner, J.; Mirumachi, N.; Farnum, R.; Grandi, M.; Menga, F.; & Zeitoun, M. 2017: "Transboundary 'hydro-hegemony': 10 years later". Wiley Interdisciplinary Reviews: Water, 4(6), https://doi.org/10.1002/wat2.1242
- Wolf, A. 1998: "Conflict and Cooperation Along International Waterways", Water Policy 1, 251-265 https://doi.org/10.1016/S1366-7017(98)00019-1
- Wolf, A. 1999: "Water wars' and water reality: Conflict and cooperation along international waterways". In S. Lonergan Ed., *Environmental change, adaptation, and security*. Dordrecht: Kluwer Academic Press. https://doi.org/10.1007/978-94-011-4219-9_18
- Wolf, A. 2000: "Trends in transboundary water resources: Lessons for cooperative projects in the Middle East". In D. Brooks & O. Mehmet (Eds.), Water balances in the Eastern Mediterranean. Ottawa: The International Development 219 Research Centre: Science for Humanity.
- Wolf, A. 2007. "Shared waters: Conflict and cooperation". Annual Review of Environment and Resources, 32, 3.1–3.29, https://doi.org/10.1146/annurev.energy.32.041006.101434
- Wolf, A.; Yoffe, S, & Giordano, M. 2003: "International waters: identifying basins at risk". *Water policy*, 5(1), 29-60, https://doi.org/10.2166/wp.2003.0002
- Zeitoun, M. & Warner, J. 2006. "Hydro-hegemony–a framework for analysis of trans-boundary water conflicts". *Water policy*, 8(5), 435-460, https://doi.org/10.2166/wp.2006.054

The concept of hydrohegemony as a framework for analyzing transborder conflicts over water. Thinking about the Chinese case