

Arguing Water as a Right: A Critical Analysis of Water Literature

Advanced in Political Discourses

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Abstract

This paper presents a critical analysis of water literature, advanced in political discourses. The paper, while reviewing water studies, for this purpose, explores the prevailing understandings and highlights the trends in water studies developed globally. Importantly, the discussion focuses on the literature that argues to consider water as a right. The paper, in this view, seeks to explore if the literature evolved in political discourses have argued water as a right and if have defined the meaning of the same. To attain this purpose, the paper sheds light on the works that have focused on the idea that insist that water is a right and have argued that since water is a basic need of human existence it is required to be realized and recognize it as a human right.

While reviewing the literature the paper underlines that the method, style and arguments used in the past literature, instead of presenting the required meaning of the right to water, focuses more on the pros and cons of water privatization. The paper while highlighting the limitations of the water studies points that the fact that water is a right is discussed in water discourse but there is a notable absence of the required details.

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Introduction

Water is directly related to human life and hence water related studies are undertaken in almost all the disciplines. These studies are fundamentally problem oriented and usually aim to solve water related problems within the domain of a specific discipline. Initial readings made for this paper found that in natural sciences, water related problems are studied in the context of environment and are explained as part of ecology. Similarly, the problem of water properties and its effect on earth are researched in earth sciences and researchers treat it as part of hydrology. In medical and health sciences problems concerning water are studied with reference to health and hygiene¹.

Since the multiple use of water resources has increased the complexities of water related problems, issues that were earlier covered under a single discipline are now studied with an interdisciplinary approach. For example, in scientific investigations, the component of water is studied with reference to water pollution (Sen, 2018; Knox &

Canter, 1990), water wastage, health and sanitation (Mckeown & Bugyi, 2015). Similarly, water management related technical problems that are usually thought to be related to engineering, are studied in the social context and investigated as social challenges. For instance, the problems concerning construction of dam are not only studied as part of engineering but investigated as a problem of rehabilitation and injustices happening to a particular community, class or caste. Similarly, the problems of water management are not viewed with reference to water governance but studied as a question of water justice and researched in the context of privatization vs. anti-privatization movements which have emerged at the global level.

The interdisciplinarity adopted in water related studies in the social sciences allows the study of water related issues in different contexts. However, the major focus is given on *water stress/scarcity and quality of water resources and their relation with water conflicts and water disputes* (Moss, 1967; Anderson, 1983; Gleick, 1993; Rogers, Llamas, Cortina, 2005; Gupta, 2008; Shiva, 2010; Colopy, 2012; Kallen, 2015; Chellaney, 2015; Steenhuis & Warhaft, 2016)ⁱⁱ. It is found that while studying water related issues, research in the social sciences has significantly drawn attention towards problems concerning *floods, drought, food, irrigation, pollution, management*, (Jairath and Ballobh, 2010; Kumar, 2009; Vaidyanathan, 2001, 2006, 2013; Vaidyanathan, 1999; Mollinga, Doraiswamy and Engbersen, 2001; Sridhar et al 2006; Maloney, Clarence, and Raju, 1994; Iyer, 2002, Shiva, 2002; Chellaney, 2015), *water management and water laws* (Cullet, 2000, 2007, 2009, 2010, 2011, 2013), *water security* (Asthana, 2014)ⁱⁱⁱ and *water availability, management and water privatisation as against commons* (Shiva, 2002; Bakker, 2003, 2010; D'Souza, 2010).

Water Related Writings in Social Sciences

A study of existing literature on water shows that the changes which have occurred in social, political and economic life have brought alterations in the nature and approach to Water Studies. Studies on water resources attempt to address contemporary problems. Understandings offered by such studies have enriched literature on water by making it interdisciplinary. The inter-disciplinary nature of water studies is noted at both the global as well as the regional level.

Global Overview

Globally, the multidimensional nature of water has been studied with multiple approaches and while doing so the studies, in the form of research studies and reports, argue that water is a source of life and development. They present water as an invaluable natural resource facing acute crisis (Molden, 2007). The paper noted that literature on water has plentiful of research studies and reports that consistently highlight water stress/scarcity and further express concerns for the depleting quality of water resources (Moss, 1967; Anderson, 1983; Gleick, 1993; Rogers, Llamas, Cortina, 2005; Gupta, 2008; Shiva, 2010; Colopy, 2012; Kallen, 2015; Chellaney, 2015; Steenhuis & Warhaft, 2016)^{iv}. With the change of time and requirement, developmental discourse has added new areas in water studies, where use of water resources is re-conceptualized in favor of developmental process. Accordingly, water that has so far been studied in the context of *floods, drought, food, irrigation and pollution* (Jairath and Ballobh, 2010; Kumar, 2009; Vaidyanathan, 2001, 2006, 2013; Vaidyanathan, 1999; Mollinga, Doraiswamy and Engbersen, 2001; Sridhar et al 2006; Maloney, Clarence, and Raju, 1994), has gradually become a part of *Developmental Studies* (Sharma, 1998; Bogaert, 1997; Mollinga, 2004). Studies that have examined the use of water resources in the developmental context have analyzed water uses with *economic perceptions* (Kumar, 2010; Criffin, 2006) and insisted on efficiency and water privatization (Frederiksen: 2002; Swyngedouw, 2005; Beckedorf, 2010; Harris, 2011; Loshaj, 2016). Further, the practices of water privatization are presented as water injustices (Shiva, 2002; Bakker, 2003; Crase, 2004; Baxi 2009; Iyer, 2003, 2010) because these have caused *social* (Rastello, 2007), *political* (Iyer, 2010) and *economic* injustices (Shiva 2002; Bakker, 2010).

Due to this shift in perspective, the problem of water stress has been studied in the context of political, social and economic injustices (Bakker, 2010). In such studies, rights over water resources are argued with complex values as identity, power and citizenship (Mosse, 2008). There are a number of researchers who have studied the idea of water injustice in the global context. To explain the idea, these studies have used terms as “water haves” and “water have nots”, the meaning of which changes as per the context. In the context of social and economic injustices “water haves” are understood as those who have the ability to pay and “water have nots” are those who are poor and cannot pay for the cost of water uses (Shiva 2002; Bakker, 2010; Roy, 2001). The studies which point out political injustices, highlight the unequal riparian divergences (Iyer, 2002, 2009; Shiva, 2002; Chellaney, 2015) and use these terms in the context of inter-state disputes and trans-boundary conflicts. In such studies water haves are described as upper riparian states and the have nots as lower riparian states.

Some studies, while highlighting the issue of social injustices, focus on neo-Marxist perception. Such studies have looked upon water as a part of human geography (as a biological need) and have explained the problem of unequal distribution of water as a problem of social structure (Bakker, 2003; Kaika, 2003; Swyngedouw, 2004; Ganday, 2008; Budds, 2009; Loftus, 2009; Linton, 2010; Roy, 1999). In the literature on water, such studies have evolved with gender studies (Mellor, 1997; Shiva, 2002, 2005; Nair (ed.), 2009). In such studies, the link between availability and accessibility of water resources and its implications on women’s health have been documented under the title of ‘Eco-feminism’ (Dufaut, 1988; Swaminathan, 1997; Seaforth, 2001; Shiva, 2002; Griffin, 1978; Gaard, 1998; Plumood, 1999; Yamin 2005, 2012). These studies commonly observe that use of drinking water and household water may affect men and women differently for especially in the situation of water scarcity it is the women who suffer more than men (Griffen, 1978; Gray, 1979; Spretnak, 1982; Shiva, 1983; Plumwood, 1993; Bleisch, 2006).

Other kinds of studies which highlight water injustices in the context of inter-state and trans-boundary conflicts argue that the negative and insensitive control of upper riparian states over water resources creates acute water crisis for the lower riparian (Iyer, 2007). Such studies while drawing on the situation of lower riparian states argue mainly for riparian rights. According to some studies, treaties made to address unequal riparian divergences are unjust and create environmental imbalances (Iyer, 2002 & 2007; Chellaney, 2011 & 2015; Johnston, Hiwasaki and Klaver, 2011). In fact, there are a number of researchers who have viewed these imbalances as environmental injustices (Hardberger, 2005; Baviskar, 2005, 2007, 2008; Shah, 2008; Bandyopadhyaya, 2009; Mehta & Rayer, 2010) and have discussed them as the part of interstate and transboundary water politics (Waterbury, 1979) and hydro-politics^v at the regional level (Mirumachi, 2015).

Notably, in the body of literature on water, there are some studies that have highlighted all kinds of water injustices and have discussed them in legal (Cullet & Konan, 2010; Iyer, 2009; Riedel, Rothen, & Auswartiges, 2006; Gleick, 1996, 1999), policy and security contexts (Asthana, 2009) These have argued that it is the global justice movement that has identified water injustices and raised voice against it (Shiva, 2002; D’souza, 2009; Bakker, 2010). The studies argue that the prevailing water injustices have disregarded the idea of human rights and hinder/obstruct/obliterate the fact which states water as a right (Pleyers, 2010; Sultana, & Loftus, 2013; Robinson, 2013; Angel, 2017). These studies insist on placing water in the discourse of human rights (Riedel, Rothan & Auswartiges, 2006; Amanda, 2011; Winkler, 2014), which has again brought a major shift in water studies.

Indian Overview

In India, the literature on water has evolved in different contexts that includes normative as well as empirical studies. Studies by Ramaswamy Iyer, (2002, 2009), Vandana Shiva (2002), Radha D’Souza (2009), P. Anand (2014), Vandana Asthana (2014) and Bhrm Chellaney (2015) are some examples of these. The most known studies have evolved in the context of water conflicts between India and other countries as Pakistan (Indus river), China (Brahmaputra), Bangladesh (Ganges River) and Nepal (Kosi river). Studies by scholars as Ashok Swain (2004),

Sharad K. Jain, Pushpendra K. Agarwal, Vijay P. Singh (2007), P Malhotra (2010), Jerome Delli Priscoli, Aaron T. Wolf (2010), Rickin Th Singh, (2011), Amitendu Palit, Gloria Spittel, (2012), Dharendra K. Vajpeyi, (2012), Brahma Chellaney, (2013 & 2015) and K. J. Joy, Partha J. Das and Gorky Chakraborty, (2017) are some of the important works in this area.

Literature on water in India has covered other areas of water conflicts as well and dwelt on the economic, social, political, legal and judicial aspects of the same (Indian Law Institute, Srimandir Nath Jain Alice Jacob, 1971; Dodda Srinivasa Rao, 1998; Ramaswamy R Iyer, 2003 & 2009; Cullet, 2002, 2009, 2013; Radha D'Souza, 2006; John R Wood, 2007; Vishwa Ballabh, 2008; Joseph F. Zimmerman, 2012; Paula Hanasz, 2017). Studies made on the consequences of water privatization (Binayak Das and Ganesh Pangare, 2006; Vandana Asthana, 2009; Vandana Shiva, 2002; Vicky Walters, 2013; Jeremy L. Caradonna, 2017), the hydropower politics between two or more states (Rajesh Sinha, 2006; A Amarendra Reddy, 2016), the politics of dam and displacements and the suffering caused by displacement (Bogaert 1997; Hemadri R, Mander H, Nagaraj V, 1999; McCulley, 2001; Khagram, 2004; Rehmat and Shripad Dharmadikary, 2006; Hari Mohan Mathur; 2013; Vishal Narain and Annasamy Narayanamoorthy, 2016) are some of the studies that highlight the conflicts arising in the social, political and economic lives of individuals. There are a few studies that draw upon hydro-politics prevalent in the Asian region and discuss India's position on the same (Upreti, 1993; Elhance, 1999; Gyawali, 2000; Shiva, 2000; Chellaney, 2015).

In water studies, water management is studied in the context of irrigation. Works of Maloney, Clarence and Raju (1994), Vaidyanathan (1999), Gulati, Meinzen- Dick and Raju (1999) and Mollinga, Doraiswamy and Engbersen's (2001) are some of the important works on this aspect. There are a number of researchers and studies that focus on water management and while so doing they study the problem of water stress in the regional context (Mahesh Rangarajan, 2007). These studies highlight the water problems/issues of different states, including Rajasthan (Agarwal S. K., 2005; Indian Planning Commission, 2006; V. S. Vyas, 2007; Hem Lata Joshi, 2008; Saurabh Gupta, 2015; Nandita Singh, 2016), Gujarat (Indira Hirway, S. P. Kashyap, Amita Shah, 2002; T Shah, 2000; R. Swaminathan, 2008; MC Shah, 2008; Lancy Lobo and Shashikant Kumar, 2009) and Maharashtra (R.K. Mishra and Samanta Sahu, 2013).

It is important to note that indeed, in India, literature on water has evolved in multiple contexts and cover different subjects. However, since the aim of the present paper is to present a critical analysis of water related literature evolve in social sciences in the context of the arguments that insists to consider and endorse water as a right, the other subjects like water conflicts, water disputes and water pollution are not included in the review on water literature.

Literature Water: Water is a Right

One finds that so far, in the literature on water, the idea that water is a right has been studied mainly in two contexts. Some studies, while arguing that water is a right, emphasize on the requirement of efficiency in water management and advocate the privatization of water resources (Brennan and Scoccimarro, 1999; Brookshrie, Burness, and Chermak, 2002, 2004; Yang and Weersink, 2004; Yang H. Z., 2003; Richter, 2013, 2014; Buddes, 2004; Perreault, 2006; Frederiksen: 2002). However, some studies view efficiency of water management as water equality and rigorously argue for equality in the same. These studies condemn the idea of water privatization as "*liberal environmentalism*" (Bernstein, 2001), "*green neoliberalism*" (Goldman, 2005), "*market environmentalism*" (Bakker, 2004) and as "*neoliberalization of nature*" (Bridge, 2004; Mansfield, 2004; McAfee, 2003; McCarthy, 2004; McCarthy and Prudham, 2004; Perrault, 2006) and argue that practice of water privatization will increase the problems of water inequality (Allouche & Finger, 2003; Crespo, 2003; McDonald & Ruiters, 2005; Parker, 2012; Bakker, 2013; Pawar, 2014; Schiffler, 2015). Importantly, all these studies together argue for the use of egalitarian

principles in water management (Roy, 1999; Shah, 2002; Shiva, 1998) and insist upon ensuring universality of rights of the commons over water resources (Baxi, 2002; Abbas, 1984; Gleick, 1996).

Water Literature: Human Right to Water

The paper has noted that to argue water as a right, scholars have used the human rights approach and hence in the literature on water, the concept of Human Right to Water has been studied with notable consistency. It has been argued that human right to water can be adopted over other approaches like need based approaches because for an individual, it is the source of authority that makes her/him a claimer of right instead of pleading for it (Baxi, 2001; Cahill, 2005; Thielbo`rger, 2014; Winkler, 2015).

The most distinct argument in favor of Human Right to Water is found in the works of scholars as P.H. Gleick (1999), Angela Cassor Noemes (2004), Salman M. A. Salman, & Siobhan Alice (2004), McLnerney Lankford (2004), Kunt Bourquaim (2008), E. Riedel (2008), Annanda Chahill Ripley (2013) and Inga T. Winker (2014). These are significant mainly because these studies have discussed and upheld water as a basic need and further considered water as a basic right, entitled to all and in all circumstances (Martha, 2003).

The literature which argues for Human Right to Water extensively focuses on the features of General Comment 15. Studies by Alvarez (2003), Mehta (2003), Salman M. A. Salman and Siobh N McLnerney Lankford (2004) and Amanda Cahill (2005) are important in this regard. These studies while focusing on the main points of Comment 15, insist that Comment 15 is a document that has conceptualized the meaning and scope of Human Right to Water and has helped to institutionalize the idea at the global level. Thielbo`rger, Pierre (2015)'s work, however, presents a different view. He points out that globally, there is an absence of clarity on the meaning of Human Right to Water as it is been "derived" from broader human rights recognized therein. Notably, in his work, instead of arguing for Human Right to Water, he argues for Right (s) to Water.

Water Literature: Right to Water

This paper noted that literature on water loudly argues for individual rights over water, however, to attain and understand the appropriate meaning of right to water, one has to read in-between the lines and that too very deeply. In the literature on water, studies by scholars like Vandana Shiva, (1983, 2002& 2005), Ramaswamy Iyer, (2002, 2007 & 2009), P. Anand (2007), Thielbo`rger, Pierre (2015) are exceptionally important as these scholars have actually drawn the literature which defines the meaning (s) right to water.

The most detailed argument and meaning of right to water is found in Anand's (2007) conception. In his article, accountabilities to ensure water as a right are explained and argued in the context of right to lay claim on water. Without mentioning the terminological differences, he focuses entirely on the idea which states that water is a right and while doing so he actually explains the meaning of Right to Water. To argue that water is a right, he establishes obligatory relations between different parties and suggests that water as a right should be interpreted in terms of powers, privileges, claims and immunities. The basic argument of his study is that assuring water as a human right may not help in itself. Since the idea is complicatedly attached with other needs of human life, execution of the promise of Right to Water is an important issue. And hence, the idea of water as a right is not an independent phenomenon, but it is a concept that develops with related issues that are deeply interlinked. He clarifies that an ideal co-relation maintained between the concerned issues can ensure entitlement of right to water to the present and future generations.

In his article, the co-relation between the terms as power, privileges, claims and immunities are explained with complex narrations, and are placed as primary and secondly order right. According to him, in the idea of right to water, power, as the first order of right emerges as a positive right, but it is not the absolute power to use water. Anand, with the help of the notion of rule of law as a related issue, puts limits on the use of water and argues for the need to preserve water as a right for the next generations. According to him, the idea of water as a power is linked with duty of the government, which obligates the government to create the ability to access water and assure claimability on the same, by providing best public services. Accordingly, the first order i.e. power of the individual to use water becomes his/her claim over water resources, as the government is obligated to ensure such claim-abilities.

According to Anand, ideas as privileges and immunities are second order rights and are negative. Here, privileges given to an individual entitle her/him (not to) to use water as per cultural preferences. At this point again, like primary order i.e. power, cultural value preferences are not free from responsibilities and immunities. But they are linked with the duty of participation and accountability, attached with water users. The links present that water as immunity is a right which is to be consulted, while taking decisions related to his/her entitlements. Clearly, in Anand's understanding, entitlement of right to water depends on the fulfillment of duties, to which both governments and citizens are party.

Another major explanation of the idea of right over water that can be placed as Right to Water, is found in Vandana Shiva's works (1983, 2002 and 2010). According to Shiva, right over water means providing free water to all. In her works she repeatedly argues that water is a gift of nature and since water is essential for life, it must be freely available for substance needs and must be given to all. Importantly, in her work, the argument for right over water is not presented in the theoretical context but it is argued in the context of planning and management. Her major books are actually a critique of centralized practices in water management that argue that practices have massed up water distribution and hindered the entitlement to right to water (2010). In almost all her works Shiva laments that both public and private sectors are incapable of handling the water stress and have failed to translate democratic governance in water management. She opines that in water management, inefficiency of the public sector creates water markets. Their profit-oriented principles have turned water into a priced/rare resource and placed the availability, accessibility and affordability of water out of reach of the commons. To condemn the commoditification of water resources that is managed by the private sector, Shiva claims that water privatization has led to water injustices and is the biggest hurdle in entitling citizens with right over water. To preserve and maintain water for commons she insists upon improving the system of water management and practicing the principles of Water Democracy. The paper noted that Shiva's contribution to water studies is remarkable in many senses as she has re-conceptualized the idea of Water Democracy and systematically argued for rights of commons over water resources. In one of her books (*Water Wars: Privatization, Pollution and Profit 2002*), she explains nine principles of Water Democracy, each of which seeks to preserve and sustain water for commons.

Interestingly, in Pierre's (2015) perception, Right to Water is not singular in its entitlements but is plural in nature. Hence, while discussing the question of water as a right, he elaborates on the Right(s) to Water, instead of Right to Water. To present the idea, he demonstrates the process of institutionalisation of the idea of Right to Water and provides normative and empirical aspects of the same. He demonstrates that rights of commons over water cannot be realized through a single document which is international in nature, but it can be done only with the recognition of water as a right, through domestic constitutional and non-constitutional law, that is actually the important source of entitlements.

A review of literature on water shows that in India, the idea and status of Right to Water is popularly studied in the constitutional and judicial contexts. Scholars as Phillip Cullet, Ramaswamy Iyer, Pierre Thielbo"rger and Upendra Baxi read the Indian Constitution as a philosophical text, and argue that it has actually upheld governments to be accountable to facilitate water as a right for all.

Another group of scholars as Sangameswaran, Priya and Roopa Madhav, Subramaniam, M, and others focus on the judicial contribution in the entitlement of right to water. They argue that in India, rights of commons over water are being identified and upheld by the Indian judiciary. According to these scholars, the judiciary while exercising their power of judicial review, ascertain that water is a right of all and the state is a trustee of water resources. Iyer (2007), in his works, identifies that the concept of Right to Water in India is a result of judicial and extra-judicial activities of the judiciary which has yet not been noticed/acknowledged in policy making.

The analysis and discussion presented above provides that in political discourses a fact that water is a right is realized but same is not conceptualized in the tradition senses. To ensure rights of individuals over water, it is essential to have a clarity on the meaning of what do one mean by water is a right. In the absence of required clarity it is difficult to assure water as a right and place it in legal and policy framework.

Concluding Words

This paper has highlighted, reviewed, summarized and commented on the water related literature, evolved in political discourses. The analysis presented in this paper has pointed that the idea which insists that water is a right is emerged and evolved through various discourses. However, in comparing to other disciplines, researches made in the social sciences have studied this idea more systematically. The paper has presented that in political discourses the idea has been argued with notable consistency. Academic developments, in this regard, are noted globally and even in India. The paper, while reviewing the water literature, has identified that in political studies, scholars insist on recognizing and endorse water as a right. Importantly, in the existing literature, the idea is realized and argued, philosophically. Such studies have underlined that globally the idea that water is a right is endorsed by the international, regional and national documents that is emerging in the form of resolutions, declarations and treaties. The paper has pointed that in political discourses the idea that water is a right is evolved against water injustices and are explained broadly in two references i.e. right to water and human right to water. Both the ideas while arguing to ensure water as a right presents different arguments and justification. Mainly, here, the idea of right to water is insisting on domestic realization of individual rights over water. Whereas, the idea of human right to water emphasizes on the universalization of the rights of individuals over water and obligates international institutions to assure water to all.

References and Bibliography

- Anand P.(2007). *Right to water and access to water: An assessment*. Journal of International development vol (19) pages 511-526.
- Asthana, V., & Shukal, A. (2014). *Water Security in India: Hope, Despiration and the Challenges of Human Development*. Newyork : Bioomsbury publications.
- Asthana,V. (2009). *Water policy process in India: Discourse of Power and resistance* . NewYork: Routledge.
- Bakker K (2004). *An Uncooperative Commodity: Privatizing Water in England and Wales*. Oxford: Oxford University Press.
- Bansal, P. K. (9th April 2015). *And not a drop to drink* . New Delhi: The Indian Express
- Baxi, U (2002). *The Future of Human Rights*. New Delhi: Oxford University Press.
- Beitz R. Charles (2012). *The Idea of huamn Rights*. New York, oxford university press.
- Bernstein S (2001.) *The Compromise of Liberal Environmentalism*. New York: Columbia University Press.
- Bluemel, E. B. (2004). The Implications o f formulating a human right to water. *Ecolgoy L.Q*, 962-63.
- Brady, Henry and David Collier (eds.) (2004). *Rethinking Social Inquiry*. Lanham: Roman and Littlefield
- Branco, C, M, Henriques, D, P (2008). *The Political Economy of the Right to Water*, working paper, Portugal: Cefage.
- Bruns, B.R. & Meinzen-Dick, R. (2000). *Negotiating Water Rights*, London, ITDG.
- Byrne, D. O. (2012). *Human Rights: As Introduction*. New Delhi: Pearson.
- Chellaney Brahma. (2011). *Water: Asia's New Battle ground*: Washington. Georgetown University press.

- Clark, T W (2002). *The Policy Process: A Practical Guide for National Resources Professionals*, US: Yale University Press.
- Collier David, Colin Elman (2008). *Qualitative and Multi-Method Research: Organization, Publication, and Reflection on Integration*: Oxford, Oxford University Press.
- Cullet Philippe (2009). *Water Law, Poverty, and Development*. New York, USA. Oxford University Press.
- Cullet Philippe (2012) *Water Conflicts in India: Towards a legal & institutional framework*: Pune. Forum of policy dialogue.
- Cullet Philippe (2013). *Right to water in India: Plugging conceptual and Practical Gaps*, International Journal of Human Rights, 56-78.
- D' Souza Radha. (2005). *The Third World and Socio-Legal Studies: Neo-Liberalism and Lessons from India's Legal Innovations*, Social and Legal Studies,14(4): 487-513.
- Dinar, A., Rosegrant, M.W. and Meinzen-Dick, R. (1997). *World Bank, 1997. Water Allocation Mechanisms, Principles and Examples* Research Working Paper No. 1779 (available at <http://ssrn.com>).
- Douzinas, C. (2000). *The End of Human Rights*, Oxford: Hard Publishing.
- Dubreuil, C. (2006). *The Right to Water: From concept to Implementation*. France: World water Council.
- Elver, H. (2000). *Peaceful Use of International Rivers: The Euphrates and Tigris Rives Dispute*. New York: Transnational Publishers.
- Embid, A. (2008). The Right to Water. In A. Biswas, E. Rached, & C. Tortajada, *Water as a Human Right for the middle East and North Africa*. New York: Rontledge.
- Fisher Frank (2003). *Reframing Public Policy: Discursive politics and Deliberative Practices*: UK: Oxford University press.
- Fox Liam (2013). *Rising Tides: Facing the Challenges of a New era*, Quercus pub, England.
- Fukuyama, F. (1992). *The End of History and The Last Man*, London: Penguin, G8 Summit(2003) Water-a G8 Action plan. http://www.g8.fr/evian/english/navigation/2003_g8summit/summit_sdocumnet/water-ag8actionplan.html
- George, Alexander and Andrew Bennett (2005). *Case Studies and Theory Development*. Cambridge: MIT Press
- Gerring, John (2001). *Social Science Methodology*. New York: Cambridge University Press
- Gleick, P. H. (1998). The human right to water. *Water Policy*, 487-503.
- Goldman M (2005). *Imperial Nature: The World Bank and the Making of Green Neoliberalism*. New Haven, CT: Yale University Press.
- Hayden Patrick (2001). *The Philosophy of Human Rights*. St Paul: Paragon House.
- Hodgson, S. (2006). *Modern Water Rights: Theory and Practice*. New York: UN publications.
- Hogwood, B., and D. Porter. (1984). *Policy analysis for the real world*. Oxford: Oxford University Press.
- Howarth, W. (1992). *Wisdom's Law of Watercourses*, Fifth Edition Shaw & Sons, Crawford.
- Howlett, M. and Ramesh, M. (1985). *Studying public policy*. Toronto: Oxford University Press.
- Inga T. Winkler, (2010) "The Human Right to Water: Significance, Legal Status and Implications for Water Allocation," New Delhi: Hart Publishing.
- Iyer, R. (2006). *Towards Water Wisdom: Limits, Justice, and Harmony*: New Delhi. Sage
- Iyer, R. (2010). *Governance of water: The Legal Question*. South Asian Survey, 147-157.
- Iyer, R. (ed.). 2009. *Water and the Laws in India*. New Delhi: Sage
- Leo Strauss, (1953). *Natural Right and History*, Chicago & London: University of Chicago Press.
- Loharri & Dutta (2003). Reflections on water: Gender in the governance of water in India, *development bulletin*. The Australian National University.
- Mahoney, James and Dietrich Rueschemeyer (2003). *Comparative Historical Analysis in the Social Sciences*. New York: Cambridge University Press
- Mansfield B, (2004). Neoliberalism in the Oceans: "Rationalization", Property Rights, and the Commons Question. *Geoforum* 35(3):313-326.
- McCarthy J and Prudham S, (2004). Neoliberal nature and the nature of neoliberalism. *Geoforum* 35(3):275-283.
- Mishra, R. K., & Raveendra, J. (2011). *Millennium Development Goals: The Indian Journey*. Delhi: Allied Publications.
- Norberto Bobbio (1996). *The Age of Rights*. Cambridge: Polity Press.
- Perrault T (2006). From the Guerra del Agua to the Guerra del Gas: Resource governance, popular protest and social justice in Bolivia. *Antipode* 38(1):150-172.
- Pigram, J.J. (1999). *Tradable Water Rights: The Australian Experience*, Centre for Water Policy Research: Armidale University of New England,
- Prasad, K. (2015). *Water in the coming decades: Policy and Governance Issues in India*. Delhi: Foundation.

- Prudham W S (2004). Poisoning the Well: Neoliberalism and the Contamination of Municipal Water in Walkerton, Ontario. *Geoforum* 35(3):343–359.
- R. Binayak (2008). *Water: the looming crisis in India*: UK. Lexington Books.
- Ragin, Charles (2008). *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. Chicago: University of Chicago Press <http://www.indiawaterportal.org>.
- Schad (1999). *A Perspective for forming water policy*: US. Technology society press
- Sen A (2004). *Elements of a Theory of Human Rights*: Philosophy and Public Affairs; Fall, Research Library Core.
- Shiva Vandana, (2002). *Water Wars: Privatization, Pollution and Profit*, India research press, New Delhi.
- Shiva Vandana , (2003). *Captive Water*. Available at <http://www.resurgence.org/resurgence/issues/shiva>
- Shiva Vandana, (2003). *Killing the Ganga*, The Hindu August 31
- Shut Stephen, Hurley Susan (1994). *On Human Rights: The Oxford Amnesty Lectures 1993*: New York, Basic Books
- Upadhyay Videh (2003). *The Right to Live is Non-negotiable* Indian Express, 14 June.
- Waldron Jeremy (1984). *Theories of Rights*. Oxford: Oxford University Press
- Yash, G. (2008). *Rights. Social Justice, and Globalization In East Asia*. In R. Falk, H. Elver, & L. Hajjar, Human Rights: Critical concept in Political Science. London and New York: Routledge Taylor & Francis.

End Notes-

ⁱ References of all mentioned disciplines are taken from the work Domoso, Marica C. (2009). *Water Interactions with Energy, Environment and Food and Agriculture: Encyclopedia of Life Support Systems*. United Kingdom: Eolss Publishers.

ⁱⁱ Here, the researcher has used all the both terms because Indian states are not facing the same problems, in some states there is Water scarcity, which refers to the volumetric abundance, or lack thereof, of water supply. This is typically calculated as a ratio of human water consumption to available water supply in a given area. Water scarcity is a physical, objective reality that can be measured consistently across regions and over time.

Similarly, “Water stress” refers to the ability, or lack thereof, to meet the human and ecological demand for water. Compared to scarcity, “water stress” is a more inclusive and broader concept. It considers several physical aspects related to water resources, including water scarcity, but also water quality, environmental flows, and the accessibility of water. Importantly, the degree of stress is measured with the reference to per capita availability of water resources, in a country or region i.e. Availability of Water Resources (AWR), specifies that 1700m³ means that only occasional and local stress, less than 1000m³ indicates a condition of stress and 500³ or less than it means serious condition and threat to life. The other measure i.e. Basic Water Requirement, measures water availability differently. For instance, Gleick, 1996 has estimated water requirement of an individual as 50 liters. For details see: Ramaswamy R. Iyer (2007), *Towards Water Wisdom: Limits, Justice and Harmony*, Sage Publications, New Delhi and Peter Schulte (2014) *Defining Water Scarcity, Water Stress, and Water Risk: It’s Not Just Semantics*, available at <http://pacinst.org/water-definitions/>.

ⁱⁱⁱ A report published on www.cna.org (2017) provides that the problem of water stress has added to the problem of instability and conflicts have increased due to the activities of non-state actors. The report has predicted that the condition of water stress can be exploited by non- state actors, violent extremist’s organizations, insurgents and other belligerents.

^{iv} Water scarcity: when a country or region’s annual water supply is less than 1,000 cubic meters per person per year. Water stress: when a country’s or region’s annual water supply is less than 1,700 cubic meters per person

per year (for reference, US per capita total water used is 2,500 cubic meters per year) or a high water withdrawal ratio (WWR). See foldout chart.

^v This implies politics affected by the availability of water resources. It is a systematic study of conflicts and cooperation made between States over water resources.