

Linking Climate Change And Security In The Anthropocene Epoch

Author: Saurabh Thakur

1. INTRODUCTION

“This moment of anticipation is like the calm that settles after all hopes have died...Never has our future been more unpredictable, never have we depended so much on political forces that cannot be trusted to follow the rules of common sense and self-interest- forces that look like insanity, if judged by the standards of other centuries.”(Arendt, 1973)

These lines from Hannah Arendt's *The origins of totalitarianism*, captures the global sentiment in the tumultuous aftermath of the two world wars, but they can also be utilized to sum up the present-day ecological anxieties and global despair on the question of climate change. There is now a widespread scientific consensus that the phenomenon of anthropogenic climate change is accelerating and shaping the planet in catastrophic and irreversible manner (Doran, 2009; Stern, 2006). The political negotiations have failed to reach a consensus at the international level, which has led to a status quo that is increasingly becoming unacceptable around the globe. It is now being argued that the planet has entered a new geological epoch- The Anthropocene- which marks the death of 'nature' and the ascension of human species as the makers and shapers of the planet (Crutzen 2006). This is a new climate discourse which frames the climate crisis as a universal, transboundary problem. Anthropocene highlights the limitations and boundaries of natural resource exploitation, which constitutes a major challenge to all the countries around the globe, especially as half of the carbon space that can be availed to keep the temperatures from breaching the two degrees mark has already been exhausted (Allen et al., 2009). In 2015, 195 states signed on to the Paris Climate agreement under the aegis of United Nations Framework Convention on Climate Change (2015), which set its goal as, “Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.”

Caney (2016) argues that even if the states manage to meet this two degrees threshold, it still will not be enough to avoid the harm that will be done to the planet. The road to Paris has been a gradual acknowledgement and ascendance of ecological matters on the political high tables, but the failure to reach any consensus has marred the entire progress. In January 2019, the U.N. Security Council held an open debate to discuss the impact of climate change on the peace and security of the world. Kaplan (1994) in his seminal essay, 'The coming anarchy' preempted this linkage between ecological degradation and security. He wrote that it is now time to, “understand the environment for what it is: the national security issue of the early twenty-first century”. Over the last two decades this discourse of securitization has come to dominate the major policy domain. The most prominent case of this linkage is the Southern Asian region which is home to one of the largest populations in the world as well as a plethora of endangered biological hotspots.

This article emphasizes on the usage of a term 'Southern' in place of South Asia, in order to broaden the scope of the study. This allows for the inclusion of China, which shares a

contiguous geographical boundary with the rest of the states and its future needs are also locked in the transboundary resources of this broad geographical region. Apart from its shared cultures and histories, these countries also share a common topography, which, many scholars and policymakers argue, ties them together in a potential resource conflict in the near future. This region is one of the most geopolitically vulnerable regions in the world- the scars of bitter partition, the deep ethnic divisions, an escalating nuclear arms race, contentious boundaries, gaping economic inequality, the rising hegemonic ambition and the internal race for regional dominance; all of these factors signal towards a greater integration of ecological as well as political fate of the region. The transboundary nature of water resources in the region has increased the possibility of resource based conflict, as the major states like China, India, Pakistan, Nepal and Bhutan plan to expand their usage of these resources over the next two decades (Mahapatra & Ratha, 2016).

Beck (2014) describes the modern society as one, where, “the language of threat is infectious and transforms social inequality: social need is hierarchical, the new threat, by contrast, is democratic.” This article will examine this ahistorical, universalization of the threat of climate change, which is often-cited rationale behind the new discourses such as Anthropocene, which mark the end of ‘Nature’ and attempt to frame climate crisis in a new urgent language of future risks and resilience. This article specifically focuses on the hydro-politics in southern Asian region and makes an argument that ecological discourses in this region are critically linked to discourse of national security and self-interests of sovereign states. The article further analyses the suitability of universalizing discourse such as Anthropocene in the reinterpretation of the concept of security in the Southern Asian region.

2. CLIMATE AND SECURITY: A HISTORICAL PERSPECTIVE

The history of Climate change research is fairly recent in its origins. In 1824 French physicist Joseph Fourier was the first man to recognize the role of atmosphere in capturing heat. Svante Arrhenius, a Swedish chemist later made the startling claim in 1896 that the CO₂ content could lead to an Ice Age or an increase in global temperature of 5°C. It was only by the 1960s, that the utilitarian view of nature, dominant during the industrial age, was challenged with the birth of conservation movement around the globe. The books like *Silent Spring* (1962) and *Club of Rome's limits to growth report* (1972), were seminal in building the narrative that led to the piquing of political interest in ecological issues. The year 1974 witnessed the birth of the international diplomatic effort at the World Earth summit, which helped in building of consensus on range of ecological issues.

The discourse that ecological issues may lead to violent conflict has turned relevant in the last a few decades and many different interpretation of this interrelationship can be found in academic and policy circles (Floyd, 2008). Beginning with the seminal work of Homer-Dixon's work on scarcity-induced environmental conflict and subsequently “environmental scarcity encourages powerful groups to capture valuable environmental resources and prompts marginal groups to migrate to ecologically sensitive areas. These two processes in turn reinforce environmental scarcity and raise potential for social instability (Homer-Dixon, 1996)” Lately there has been an emphasis on establishing the link between conflict in places like Darfur and Syria to climate change (McDonald, 2013). Gleick (2014) writes that, “There is a long history of conflicts over water in these regions because of the natural water scarcity, the early development of irrigated

agriculture, and complex religious and ethnic diversity. In recent years, there has been an increase in incidences of water-related violence around the world at the subnational level attributable to the role that water plays in development disputes and economic activities.”In Homer-Dixon’s analyses, the social breakdown and violence are linked to the decline in state capacity. This decline in state’s capacity may lead to an increase in environmental scarcity. Firstly, the scarcity leads to a rise in financial demands on the state, particularly infrastructure building. Secondly, the state faces demand by elites in the society for financial or legal assistance for their direct benefit. Thirdly, this predatory behavior may galvanize the weaker sections of the society against such legal changes, sometimes leading to direct protests against a model of development that may dispossess the poor. Finally, the general recession in economic activity caused by such dynamics may reduce revenue and fiscal flexibility with the state (Dalby, 1992). This thesis has been questioned over the years due to lack of empirical evidence from ground studies (Gleditsch, 2010). There has been a focus on establishing a link between the failed states, environmental change and conflict through such hypothesis that many critical geopolitical analysts consider ineffective as it positions the developing world as a source of threat and leads to a military based response towards climate change, by so-called Copenhagen School theorists of ‘securitization’, which in the long term is ineffective and detrimental to the entire cause (Dalby, 2014; McDonald, 2013).

Wæver (1995) explains that climate change could be viewed and articulated through the lens of security, but the conception of security itself has an internal logic that encourages urgency and exceptionalism. Therefore, for Wæver (1995) the ones who are concerned with a more humane, progressive response to issues such as climate change may be better placed pursuing the goals of desecuritization, which means its removal from the list of security agendas and be brought into the realm of normal politics, openly it up to democratic debate and deliberations. Within such a politically contested domain, The UN Human Development Program Report (1994) identified climate change as a threat to human security. The UN Security Council meetings in 2007 and 2011 have extensively debated the implications of climate change for international ecological sustainability and stability. Barnett (2001) argues that, “Security is an accentuated discourse on vulnerability. Like vulnerability, its assessment requires considering the risk of exposure, susceptibility to loss, and capacity to recover. However, like vulnerability and risk, it is more socially constructed than objectively determined.”

There is a widespread agreement on the anthropogenic nature of the changes that are now underway in the earth’s climate system, as encapsulated in the Anthropocene discourse as well, have no precedent in the history of human civilization (Stern, 2006). The anthropogenic influence on the ecology are influencing and sometimes aggravating the geological processes such as coastal erosion, erratic precipitation, increased storm intensity, and species migration (McCarthy et. al, 2001). States play critical roles in creating the conditions whereby people can act in ways to pursue the lives they value (Sen, 1999). When states cannot provide all these functions, the risk of violent conflict increases.

3. THE EMERGENCE OF ANTHROPOCENE DISCOURSE

The emergence of climate change as the most pertinent challenge of our times is being described as a rare cosmopolitan moment, wherein the boundaries are being pushed beyond the nation states, and the very idea of nation state has come under question. The evidence of this change figures prominently in the key developments of our times such as the extreme weather events,

the apathetic state of climate refugees, loss of land and livelihoods, and the threat of resource wars in the garb of development and security. The scientific community now believes that earth has entered a new epoch the Anthropocene- the age of man (Crutzen. 2006). The Anthropocene is witnessing a shift in the spatial and temporal scales of interdependency between human and ecological systems (Young et al. 2006, Helbing 2013). It implies that mankind is now acting as a geological force, at par with natural processes of change, therefore, the traditional dichotomy of man-nature divide has come undone (Chakrabarty, 2009). This has far reaching implications for a world which faces the challenges of extreme weather events, erratic wind cycles, rampant inequality, transnational resources conflicts, and pandemics. Latour (2014) points out to the emergence of 'the climate' as a new form of discourse, one that forces us to imagine earth as "a cesspool of conflict, decay, war, pollution, and corruption

These threats acquire a new meaning in the 21st century. The age of Anthropocene is upon us- an epochal shift in the history of the planet, which proclaims an end to nature and transformation of man into a geophysical force (Chakrabarty. 2009). This idea presents a critical challenge to our understanding of nature, because it breaks down the age-old man-nature divide, and presents a technocratic worldview, wherein all distinctions, diversities, and differences are overridden against a common existential threat. On the one hand, the ecological crisis is de-territorializing the world against a common universal threat; on the other, it seems to re-territorialize the world in the act of self-preservation of nation states.

Backstrand and Lovbrand (2016) outline three major discourses of green governmentality, ecological modernization and climate justice, which have shaped the climate governance. Green governmentality argues for a global climate stewardship which rests upon a strong administrative rationalism and resource management. Ecological Modernization is the dominant theme in climate mitigation policies, with its win-win rationale of market environmentalism, which can deal with the problem negative externality by internalizing environmental costs and changing the governing mechanisms, such as, "a decentralized, cost-effective policymaking and increasing the role of non-state actors in the mitigation process (Hajer, 1995)." The interface of scientific knowledge and power has resulted in the post-politicization of climate change (Swyngedouw, 2010). This has serious implications for our socio-ecological as well as geopolitical system (Dalby, 2007). A post-political narrative is dominated by the natural sciences and it prescribes a technological fix, which prioritize nature at the cost of social and takes a universalizing view of the planet, thereby ignoring its vast differences (Malm & Hornborg, 2014). Hardt and Negri (2000) refer to a beginning of a new global order, which transcends the nation-state, and they call it the "imperial machine." As a counter to this understanding of new world order, Bowker and Star (1999) argue that if Empire exists, "its power resides in the construction of new systems for classifying, standardizing, organizing, and ordering knowledge and people on a worldwide basis." Chaturvedi and Doyle (2015) hold a counter argument that these north-centric discourses stand co-opted and depoliticized. "with the zero-sum games of the finite, hard earthers now replaced with Plasticine anthropocene understandings of the Earth as infinitely malleable".

The world today is confronting, what has been described as a planetary level threat of climate change. The evidence of this change figures prominently in the key developments of our times such as the rising cases of extreme weather events, the apathetic state of climate refugees, loss of land and livelihoods, food insecurity, the spread of pandemics and the looming threat of resource wars. The Anthropocene presents a critical challenge to the commonly held understanding of Nature, as it breaks down the age-old man-nature divide, and presents a

technocratic worldview of planetary tipping points, wherein all distinctions, diversities, and differences are overridden against a common existential threat. This is a narrative that aims at invoking urgency. It hopes to counter the lackadaisical approach that the political actors have adopted over the decades towards a crisis which endangers special existence on earth.

4. JUXTAPOSING CLIMATE AND SECURITY: HYDROPOLITICS IN SOUTHERN ASIA

As the Anthropocene discourse takes root in the public policy circles, especially the security domain, it becomes clear that states in Southern Asia will bear the brunt of the exigencies of erratic climate conditions. The population of this region is predicted to go up by almost a billion by 2050. Whether it is the climate change or the neo-Malthusian pressures, it is certain that we may not witness a conventional war over water resources, but it may indeed prove to be a potential trigger, a catalyst to the insecurity within the region. It will lead up to newer challenges, break the old alliances, and may even forge new partnerships.

Mittal (2006) projects the increase in aggregate demand for food in India as a result of the growth in population, per capita rise in income and a concurrent constrained production due to a low yield growth. Based on IAEA and World Bank based models, it is predicted that in case of a global mean warming of 4°C, a 10-percent increase could be seen in the annual mean monsoon intensity of precipitation (World Bank, 2013). Similarly, low lying coastal areas in India, Bangladesh and Pakistan are at severe risk due to rising sea waters, endangering lives and livelihoods.

If a river could change the destiny of a nations, it rings true for the states in Southern Asia. In his influential work, *Water: Asia's new battleground*, the Indian geostrategist Brahma Chellaney (2011) argued that if in the previous century, the battle was for land and energy resources, the new century will witness a struggle over its water resources in Southern Asian region, primarily owing to the climate change, scarcity, growing populations, changing lifestyle, and resource mismanagement. It is important to view the possible emergence of water conflict through the geopolitical lens, as it leads us to a wider understanding of the future of this resource itself. Southern Asia is a geopolitically unstable region, which makes this Transboundary resource critical to the security and prosperity of the region. Water scarcity due to climate change will only exacerbate this into a situation of conflict.

The Himalayas are the source of the three mightiest rivers- Indus, Ganga and Brahmaputra and home to world's largest inland glaciers. These river basins spread across the length and breadth of the region, across sovereign national borders. It is the source of livelihood for nearly a billion people, a vast reservoir of resources and home to diverse indigenous populations. The Ganges, the Yamuna, and the Brahmaputra form more than half of the annual flow of water in the India. Nepal has over six thousand rivers, all of the Himalayan origin. The Chinese rely heavily on the Hwang Ho and Yangtze River systems- the two of its largest sources of water for its heavily industrialized regions. Pakistan and Bangladesh are almost entirely dependent on the Indus and Ganga water systems respectively, jeopardizing their potential autonomy, in case the water turns into a scarce commodity.

If one adheres to the tenets of realism, that is, geopolitical power trumps geographical limitations, in that case the current debates surrounding water security and future water wars stands on weak grounds. The political fragility within Southern Asia renders the humanitarian pleas and environment security arguments, ineffective as well; after all, securing the borders and protecting the state's mortal existence always takes priority in the strategic space. Although it would be ill-advised to undermine the strategic importance of water, as it is critically related to the fundamental quality of life as well as the geopolitical destiny of Southern Asia, especially with the increasing rate of evidence supporting anthropogenic climate change. In the case of India, where more than half of the population is dependent on agriculture, the water stress is increasing. If the country fails to expand irrigation or boost productivity by other means, food security will once more haunt the policy makers, and economic growth may be compromised. The total usable water in India is currently estimated to be around 700 to 1,200 billion cubic meters (bcm). As per the population figures in 2011 census, India can provide 1,000 cubic meters of water per person, which is considerably lower than the accepted water stress limit of 1,700 cubic meters per person per year. More importantly, this number had sharply fallen from the 1951 estimate when 3000-4000 cubic meters of water per person were available (Parikh, 2013). India's domestic demand for water stood around 829 BCM in 2006, the number that is projected to be double by 2050, which are indicators that India is heading for the situation of water stress (Brooks, 2007).

Bangladesh is the lower riparian state with the dominant neighbor, which has proved disastrous for its management of its water resources. It faces threats of flooding and severe seasonal water scarcity, compounded by the policies of the upper riparian states. Policy makers of Bangladesh, particularly the foreign policy experts, lay emphasis on better relationship with India largely due to the geographical vulnerabilities with Bangladesh (Sharma, 1972). The geographic compulsions of this deltaic nation, especially in the light of climate change threats, leaves it in a geopolitical quagmire, wherein it can secure its water needs, and fight the salinity crisis only through diplomacy and bilateral dialogue. Bangladesh has 57 trans-boundary rivers within its territory, but only 7% of the total catchment of these rivers lies inside of the country, rest is controlled by countries such as India and China, and sometimes Bhutan and Nepal as well (Rahman, 2009). Its coastal areas are facing the threats of submergence and salinity rise in ground water reservoirs. The conflict has been brewing since independence, especially the construction of Faraka barrage to divert the river Ganga. The Teesta River is the major bone of contention that is the source of livelihood for 21 million people in Bangladesh and critical to its socio-economic development, and 91.3% of its water is drawn from the rivers Ganga and Brahmaputra (Pratap 2015). The recent agreement between the two countries holds tremendous potential for both nations as it vows to overcome this lack of coordination that was a failure on the part of 1996 Ganga water treaty.

China, being the upper riparian state have so far staked claim over the transboundary resources under the principle of 'absolute territorial sovereignty', the roots of which originate in the Harmon Doctrine that establishes the right of unilaterally use of rivers, regardless of lower riparian needs (McCaffrey, 1996). The Qinghai-Tibetan Plateau which is often referred to as the 'roof of the world', on account of its large fresh water reserves, which are the largest outside of the two poles. It is the source of multiple river systems, which run through Asia including the Indus, Ganga, Brahmaputra, Mekong, Salween, Irrawaddy Yangze and Huang He. China voted against the UN resolution to adopt

the 1997 United Nations Convention on the Law of the Non-navigational Uses of International Watercourses, thereby maintaining an opaque stance on its foreign policy with regards to the Transboundary resources (Chen, Rieu-Clarke, & Wouters, 2013). In 2003, China launched a massive project to divert waters from southern parts to the scarce water north- the South-north Water Diversion project. This project became a source of contention by 2009-2010 when the news emerged that China was planning a construction of a massive dam at the great bend in the Brahmaputra River. Both Bangladesh and India hold key strategic interests in the river; the former depending on it for its two-third river water requirements and the latter having 44.4 percent of its hydroelectric power potential in it (Wirsing 2013). The Chinese have clearly stated the Indian position on the conflict as one that is trying to gain international sympathy and put pressure on China to keep it from utilizing its domestic resources (Zhubei, 2013).

Sinha (2011) argues that the Chinese riparian approach has been “inward and unilateral” over the years, which is reflected in its non-acceptance of any abiding bilateral treaties of the Transboundary water allocation and sharing. Whether it was the three gorges dam of the SNWP project, the Chinese carry forth a traditional policy of controlling the waters for a greater good and asserting its supremacy as the upper riparian state. Unlike any other country in the region, it holds a monopoly on the Himalayan waters, and it is working towards securing its internal scarcity through the waters from the Tibetan plateau. It may be argued that the Chinese will eventually play the Himalayan water as a key strategic tool in regional politics as is already reflective in its decision of not entering into any formal water-sharing agreements with any of its neighbors. What has further raised suspicions in India is that the Chinese are proactively engaging in the PoK, with its strategic partner Pakistan, especially in dam projects. The proposition of a water war is particularly threatening to the region due to the tactics of the upper riparian states, the opaqueness of its strategy and the sheer diffidence on its part with regards to the water issues and the instrumental use of water as a political tool against them.

The Indian position, in this case, is that of a middle riparian state. It is heavily dependent on the water from the Himalayan rivers but holds little strategic advantage vis-à-vis China. Although its position does, give it a significant strategic advantage against the lower riparian states, which include Pakistan. Traditionally, India has signed very generous water treaties, such as the Indus water treaty, thereby putting faith in the cooperative solution. It is evident though that the Indian position is bound to change in the face of rising challenges in the region and its internal consumption. A zero-sum game is being built around the water scarcity and growing demand in the area, which is propelling the geopolitical rivalry between the states (Wirsing et al., 2013).

It is easy to fall into the spiral of pessimism, as the rivalry is historic and the region of Kashmir holds greater geopolitical importance. Therefore, the situation demands we look at the issue through the security lens. The water of Indus does hold the key strategic advantage for India, and being the upper riparian in this case has given it an upper hand. Although Pakistan now keenly engages with China to counter the Indian advantage and allay the fears of its population. The Indian position will be key to the future of the water in the region as it can counter the Chinese opacity through a fine, transparent and cooperative approach to its water woes with the neighbors.

The Southern Asian colonial heritage includes the development of the water-related infrastructure (D'Souza, 2006). The handling of water was assumed to be a primary motif in governance and consolidation of power. This led to an early development of dams and canals in

the Indus basin. The partition and its incalculable incapacities in the allocation of water resources resulted in a haphazard development of riparian infrastructure in the region (D'Souza, 2006). Every year more land is being lost to vagaries of nature and the imminent threat of climate change. The large vulnerable populations, a weak state, and climate vulnerabilities are troubling signs for the lower riparian states like Bangladesh and Pakistan. The Pakistan Council of Research in Water Resources (2016) estimated that Pakistan touched the "water stress line" in 1990 and the "water scarcity line" too was breached in 2005. The per capita water availability per year was 1,017 cubic meters, which is in drastic proximity to 1000 cubic meters line of scarcity, creating fears of severe droughts and scarcity in the country.

The rising stress on the hydrological resources in the region has led to an aggravation of the political stance that each of these states have taken on the issue, often framing the issue through the lens of national security. This process of securitization leads to a form of depoliticization of the crisis, whereby a limited understanding of the problem gets highlighted.

5. ANTHROPOCENE AND SOUTHERN ASIA: REINTERPRETING SECURITY

The Classical geopolitics worked on the assumption that the geographical features of the earth's surface are relatively stable, and therefore the politics unfolds in this stabilized context. Geopolitics was therefore a geographical context, a constant background for foreign policy making (Kelly, 2006). In the post-Westphalian world, territory, maps, and boundaries became the centerpiece of our understanding of the world. These contemporary lines of demarcation can be understood as a legacy of European empires and their colonial project. It is precisely this geopolitical context, which has dominated the birth of post-colonial states in the southern Asia, and one which continues to dominate the narrative of security and wellbeing.

Walt (2019) presents a controversial opinion that, "It might seem far-fetched to imagine states threatening military action to prevent this today, but it becomes more likely if worst-case estimates of our climate future turn out to be correct.". The dispersed and transnational nature of the greenhouse gas emissions has presented a challenging paradox for the foreign policy makers. Sovereignty, which is the core principle of nation building in the westphalian order, has become one of the biggest roadblocks in the path robust collective climate action. The classical understanding of sovereignty, as outlined in the realist and neorealist traditions of International Relations, assumes that it is a fixed, natural attribute of states, and a precondition for security and good life (Lake 2003). Walt (2019) argues that this "hard shell of sovereignty" has never been an absolute condition, and the violation of this principle has been carried out in the past, sometimes with the sanctions of international bodies like the UN, as was in the case of "responsibility to protect doctrine", which legitimized foreign intervention on humanitarian grounds. The ideas like the "responsibility to protect" and "sovereignty as responsibility" are perfect examples of a departure from the traditional conception of sovereignty (Glanville, 2010). The rising threat of global warming could stretch this definition further, as the United Nations have long endorsed the view that such developments pose threat to international peace and security. The UNSC has systematically tackled the linkages between climate and insecurity since 2007, and this culminated in the adoption of the resolution 2349 in 2017, which mentioned climate change as one of the root causes of the Boko-Haram crisis in the shrinking Lake Chad basin.

At the heart of the ecological predicament of our times, which the discourse of Anthropocene problematizes, is the artificiality of ecologies, particularly the urban ecology, which is now shaping the biosphere itself in significant and unchangeable ways. The Anthropocene argument is not merely about faith in Capitalist modes of production and technological progress, but rather it is a story of the complete power over nature, to extract and redesign it according to our desires. Dryzek (2016) argues that in the anthropocene epoch, "Justice has to be ecological as well as social." It is important that the discourses of climate catastrophe, security, economic modernization, and market-based solutions, are balanced against the immediate, critical issues of justice, equality and participation, which can strengthen the grassroots level preparedness against the vagaries of Nature.

The deterioration of Transboundary nature of resources in the region forces the states to reinterpret the security concerns in southern Asia. The Anthropocene discourse, if viewed as an urgent call to action, will shift the focus on to people instead of the administrative and security concerns of states and their boundaries. This gives an opportunity to shift the focus of politics and avoid the securitization discourse as an excuse for inaction (Hughes and Reimer 2004). A critical geopolitics discourse can then take shape which can challenge the traditional spatial framings of threats in Southern Asia. The nature of climate change threat, once it's established firmly on the political high tables, will highlight the transboundary understanding of the climate threat. The contemporary geopolitics can no more be situated in the stabilized geography, in fact, the Contemporary political 'assemblages', do not fit into the rubric of well-drawn, Westphalian territorial domains, which the classical geopolitics utilized to frame policy (Sassen 2008). Therefore, by breaking down the Man-Nature divide, and highlighting the dire need for urgent, collective action, the Anthropocene discourse provides an opportunity to break the stranglehold of hawkish definitions of security, and shift focus onto Human security, Climate Justice and collective responsibility.

6. CONCLUSION

The Southern Asian region runs into a plethora of problems, on account of its geopolitical and cultural histories. The traditional focus of policy makers in the region has been on protecting sovereignty and securing the demarcated borders. Amidst this atmosphere of animosity and mutual mistrust, the ecological crisis emerges as a hydra headed problem, which trespasses the Westphalian boundaries in the region. Much like the discourse of Anthropocene, which can be interpreted both as good or bad, the ecological crisis can prove to be either a cornerstone to collective efforts or site of war and conflict. The hawkish understanding of security, which has dominated the region has prevented any efforts at collective action, endangering the lives and livelihoods of millions in the region. This securitization narrative has historically excluded the public deliberation on matters of interstate relations and the human security argument has failed to take roots as a result of such a policy. The Anthropocene discourse is a mere extension of the existing knowledge available of the planetary boundaries. It may be interpreted as an urgent call to action, a scientific appeal for action against global warming. The discourse has to be situated within local contexts, so that it cannot be reduced to yet another hegemonic discourse of depoliticisation from the post-Industrial states in the northern hemisphere. Anthropocene, if interpreted as an alternative to the securitization discourse in the region, provides an opportunity to refocus on key issues of climate adaptation, justice and fairness. This will prove to be a

prerequisite requirement for any kind of preparedness for the future of over 1.5 billion people in the region.

7. REFERENCES

- Arendt, H. (1973). *The origins of totalitarianism* (Vol. 244). Houghton Mifflin Harcourt.
- Bäckstrand, K., & Lövbrand, E. (2016). The Road to Paris: Contending Climate Governance Discourses in the Post-Copenhagen Era. *Journal of Environmental Policy and Planning*, 0(0), 1–19. <https://doi.org/10.1080/1523908X.2016.1150777>
- Barnett, J. (2001). *Security and Climate Change*. Retrieved from <http://citeseerx.ist.nyu.edu/viewdoc/download?doi=10.1.1.596.9837&rep=rep1&type=pdf>
- Beck, U. (2014). *The brave new world of work*. John Wiley & Sons.
- Bowker, G., & Star, S. L. (1999). Sorting things out. Classification and its consequences.
- Caney, S. (2016). The Struggle for Climate Justice in a Non-Ideal World. *Midwest Studies In Philosophy*, 40(1), 9–26. <https://doi.org/10.1111/misp.12044>
- Carson, R. (1962). *Silent spring*. Houghton Mifflin Harcourt.
- Chakrabarty, D. (2009). The Climate of History: Four Theses. *Critical Inquiry*, 35(2), 197–222. <https://doi.org/10.1086/596640>
- Chaturvedi, S., & Doyle, T. (2015). Climate terror: a critical geopolitics of climate change. <https://doi.org/10.1080/13562576.2017.1389033>
- Chellaney, B. (2011). *Water: Asia's new battleground*. Georgetown University Press.
- Chen, H., Rieu-Clarke, A., & Wouters, P. (2013). Exploring China's transboundary water treaty practice through the prism of the UN Watercourses Convention. *Water International*, 38(2), 217–230. <https://doi.org/10.1080/02508060.2013.782134>
- Crutzen, P. J. (2006). The “Anthropocene.” In *Earth System Science in the Anthropocene* (pp. 13–18). Berlin/Heidelberg: Springer-Verlag. https://doi.org/10.1007/3-540-26590-2_3
- D'Souza, R. (2006). Water in British India: The Making of a “Colonial Hydrology.” *History Compass*, 4(4), 621–628. <https://doi.org/10.1111/j.1478-0542.2006.00336.x>
- Dalby, S. (1992). Ecopolitical discourse: “environmental security” and political geography. *Progress in Human Geography*, 16(4), 503–522.
- Dalby, S. (2007). Ecology, Security, and Change in the Anthropocene. *Brown Journal of World Affairs*, 13(2), 155–164. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=25431108&site=ehost-live>
- Dalby, S. (2014). Rethinking geopolitics: Climate security in the anthropocene. *Global Policy*, 5(1), 1–9. <https://doi.org/10.1111/1758-5899.12074>
- Dixon T.H. (1996). The Project on Environment Population and Security: key findings of research. *Ww Environmental Change And Security Project Report*, (2), 45–48. Retrieved from <https://www.popline.org/node/309115>
- Doran, P. T. (2009). Examining the Scientific Consensus on Climate Change. *Eos*, 90(3), 22–23. Retrieved from <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2009EO030002>
- Dryzek, J. S. (2016). Institutions for the Anthropocene: Governance in a Changing Earth System. *British Journal of Political Science*, 46(4), 937–956.
- Floyd, R. (2008). The Environmental Security Debate and its Significance for Climate Change. *The International Spectator*, 43(3), 51–65.

- <https://doi.org/10.1080/03932720802280602org/10.1080/03932720802280602>
- Glanville, L., 2010. The International Community's Responsibility to Protect. *Global Responsibility to Protect*, 2(3), pp.287-306.
- Gleditsch, N. P. (2010). Regional Conflict and Climate Change. URL www.pcr.uu.se/research/UCDP/. accessed on 21 August 2018.
- Gleick, P. H., & Gleick, P. H. (2014). Water, Drought, Climate Change, and Conflict in Syria. *Weather, Climate, and Society*, 6(3), 331–340.
- Hajer, M. A. (1995). The politics of environmental discourse: ecological modernization and the policy process (p. 40). Oxford: Clarendon Press.
- Hardt, M., and A. Negri 2000. *Empire*. Harvard University Press.
- Hughes, A., & Reimer, S. (Eds.). (2004). *Geographies of commodity chains*. Routledge.
- Kaplan R. (1994). The Coming Anarchy - The Atlantic. Retrieved August 24, 2018, from <https://www.theatlantic.com/magazine/archive/1994/02/the-coming-anarchy/304670/>
- Kelly, P. (2006). A Critique of Critical Geopolitics. *Critique of Critical Geopolitics, Geopolitics*, 11(1), 24–53. <https://doi.org/10.1080/14650040500524053>
- Latour, B. (2014). Agency at the Time of the Anthropocene. *New Literary History* (Vol. 45). Retrieved from <https://blogs.commonsgorgetown.edu/enl-595-spring2016/files/2016/01/LatourAgencyattheTimeoftheAnthropocene.pdf>
- Mahapatra, S. K., & Ratha, K. C. (2016). Brahmaputra River: A bone of contention between India and China. *Water Utility Journal* (Vol. 13). URL <http://www.tibet.net/en/pdf/>. Accessed on 21 July, 2018.
- Malm, A., & Hornborg, A. (2014). The geology of mankind? A critique of the Anthropocene narrative. *The Anthropocene Review*, 1(1), 62–69.
- McCaffrey, S. (1996). The Harmon Doctrine One Hundred Years later: Buried, Not Priased. *Natural Resources Journal* (Vol. 1). Retrieved from <http://digitalrepository.unm.edu/nrj/vol36/iss3/5>
- McCarthy, J.;Canziani, O.; Leary, N.; Dokken, D.; White, K. (2001). *Climate Change 2001: Impacts, Adaptation, And Vulnerability*.URL <https://www.ipcc.ch/ipccreports/tar/wg2/pdf/wg2TARfrontmatter.pdf>. Accessed on 21 July 2018.
- McDonald, M. (2013). Discourses of climate security. *Political Geography*, 33, pp . 42–51.
- Meadows, D. H., Meadows, D. H., Randers, J., & Behrens III, W. W. (1972). *The limits to growth: a report to the club of Rome*.
- Mittal, S. (2006). Structural shift in demand for food: projections for 2020 (No. 184). Working paper. Indian Council for Research On International Economic Relations
- Parikh K. (2013).India's Water Crisis: Causes and Cures an Interview with Kirit Parikh. Accessed on 23 September 2018 URL <http://Www.Nbr.Org/Research/Activity.aspx?Id=356>
- Pratap B. (2015). Teesta River: An Achilles Heel In India-Bangladesh Relations. *Saddahaq* URL <https://www.saddahaq.com/teesta-river-an-achilles-heel-in-indiabangladesh-relations>, accessed on 22 September 2018.
- Rahaman, M.M. (2009). Integrated Ganges Basin Management: conflicts and hope for regional develonment. *Water Policv*. 1. 168–190.
- Sassen, S. (2008). *Territory, authority, rights: From medieval to global assemblages*. Princeton university press.

- Sen, A. (1999). Development as freedom. New York: Anchor Books.
- Sharma, S.R. (1972). Indian Foreign Policy, Annual Survey 1972: New Delhi: Sterling Publishers Pvt., Ltd.
- Stern N. (2006). Stern Review: The Economics of Climate Change. Retrieved from http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf
- Swyngedouw, E. (2010). Apocalypse forever?: Post-political populism and the spectre of climate change. *Theory, Culture and Society*, 27(2), 213–232.
- UNDP(1994). Human Development Report. URL http://hdr.undp.org/sites/default/files/reports/255/hdr_1994_en_complete_nostats.pdf
- United Nations Framework Convention on Climate Change. (2015). *Paris Agreement: FCCC/CP/2015/L.9/Rev.1*.
- Walt S.M. (2019). Who will save the Amazon (and How)? Foreign Policy. Accessed on 15th September. 2019 URL <https://foreignpolicy.com/2019/08/05/who-will-invade-brazil-to-save-the-amazon/>
- Wæver, O. (1995). Securitization and Desecuritization. in Ronnie D. Lipschutz (ed.) *On Security*, pp. 46–86. New York: Columbia University Press.
- Wirsing, R. G. (2008). “Rivers in Contention: Is There a Water War in South Asia’s Future?” Heidelberg university, URL <http://archiv.ub.uni-heidelberg.de/volltextserver/8783/> accessed on 27 September 2018.
- Young, O.R., Berkhout, F., Gallopin, G.C., Janssen, M.A., Ostrom, E., van de Leeuw, S. (2006). The globalization of socio-ecological systems: an agenda for scientific research. *Glob. Environ. Change* 16 (3), 304–316.
- Zhifei, L. (2013). Indian threat-mongering over water resource disputes dangerous fantasy. *Global Times*, 7th October, URL <http://www.globaltimes.cn/content/815960.shtml#.Uum-xvmxhw>, accessed on 29 september 2018.