

WATER MANAGEMENT AND CONSERVATION IN INDIA FOSTERING WATER JUSTICE: ARGUING FOR ADOPTING JUST SUSTAINABILITY IN WATER GOVERNANCE

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The water sector is characterised by everyday water injustices where factors like social discrimination, economic disparities, and political preferences influence the determination of water resource access, allocation, and management. The increasing anthropogenic impacts on water resources and consequent threats to sustainability add to the water injustices, often impacting the poorer, socially downtrodden communities that bear the brunt of water scarcity and cannot afford alternatives. The current water governance patterns, prioritising equality over equity, fail to address the issues of water injustices created by social, political, and economic factors in water management and sideline the ecological impacts on water resources. Moving beyond the current anthropogenic water governance patterns is pertinent in this context to balance human and environmental water needs. In this context, the paper examines adopting the ‘just sustainability’ principle in India’s water governance that can balance human water demands and ecological water needs. The just sustainability that integrates the concerns of equity, social justice, and welfare in sustainable development could lay the framework for a re-conceptualisation in water governance where the human right to water and water for the ecosystem, or the right of nature can be balanced. Adopting a just-sustainable

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pattern based on a water justice framework can address the issues of water users and the everyday water injustices (social and economic) they face, as well as mainstream the environmental harm caused by excessive and unsustainable water consumption patterns.

I. INTRODUCTION

The persistence of inequities and injustices in the water sector in India is not just a crisis but a silent one that urgently needs to be addressed. These issues disproportionately affect the underprivileged and are fostered by a complex interplay of technology, power, policy implementation, politics, and social institutions.¹ The complexity of these inequities and injustices, which spread across access, use, allocations, distribution, management, and governance of water resources, underscores the need for comprehensive solutions.

However, mainstream discourses on water law and policy are confined to understanding the rights-duties paradigm, upholding the fundamental right to clean drinking water and corresponding duties vested in the State and realising this right through executive-run administrative directions.² The rights-duties paradigm upheld by the judiciary focuses on 'equality in access and allocations over equity and inclusiveness in such access and allocations. It fails to foreground the influence of factors like technology, power, politics, and social institutions in determining water access and allocations.

Considering this situation where mainstream water governance focuses only on rights and the influence of the technical, economic, and social factors in determining water access and allocations necessitates adopting a water justice approach in water governance. Such an approach is essential to comprehensively unpack and address these injustices without restricting the discussions to the rights-duties paradigm.³ The increasing ecological harm caused to water resources by its increasing dependence on uncontrolled and unsustainable exploration and consequent overexploitation also underlines the need for adopting a water justice approach in water governance.⁴

Considering the increasing impacts of climate change on water resources and ever-expanding water demands, it is essential to unpack the inequities,

¹ UNDP, *Human Development Report 2006 — Beyond Scarcity: Power, Poverty and the Global Water Crisis* (Palgrave Macmillan 2006).

² Philippe Cullet, 'Right to Water in India – Plugging Conceptual and Practical Gaps' (2013) 17 *The International Journal of Human Rights* 56.

³ K J Joy and others, 'Re-Politicising Water Governance: Exploring Water Re-Allocations in Terms of Justice' (2014) 19 *Local Environment* 954.

⁴ Gayathri D Naik, *Water Justice and Groundwater Subsidies in India: Equitable and Sustainable Access and Regulation* (Routledge 2024).

injustices, causes, and factors that aggravate these water injustices to balance the human right to water and water for the ecosystem.

Based on this, this article explores the context of water injustices in India. It examines how incorporating the concept of just sustainability in water governance can balance the concerns of anthropogenic water demands and ecological sustainability of water resources in the era of climate change. To reflect and justify this objective, the article adopts the following structure. It first explores the context of water injustices in India, including the legal and regulatory framework contributing to aggravating them. This part brings together the ambiguity in various judiciary and executive approaches. The next part, based on understanding these factors and causes that cause water injustice, analyses the conceptual understanding of sustainability before moving to the next part, which examines the need to adopt a just, sustainable approach to water governance in India.

II. EVERYDAY WATER INJUSTICES AND WATER GOVERNANCE: DEMANDING FOCUSED ATTENTION

Increasing water scarcity, over-exploitation of water resources, and pollution are compounded by expanding water demands and unsustainable water consumption, which lead to more complex situations of deepening the crisis, competition, and conflict for resource extraction.⁵ Whether overt or covert, water scarcity and allied issues are also manipulated and deepened by anthropogenic elements, including technology, legal regulations, policies, and power interactions.⁶

Water is a source of cooperation and conflict. Water has significantly shaped social actions and relations in all civilisations and societies. With this closer and more complex interrelation between society and water resources, water reflects a 'hydro-social' nature. Water resources' socially hybrid nature can perpetuate socially influenced power imbalances in access and allocation.⁷ Several factors determine and perpetuate these power imbalances in water access and allocations. On the one hand, social and economic factors like religion, caste, gender, and financial status influence access and allocations, triggering 'everyday injustices' in the water sector. Caste-based discrimination is rampant in different parts of the country, where sections like Dalits face the brunt of inequities in water access and allocations. Gender also plays a role in perpetuating discrimination. Women are

⁵ Rutgerd Boelens, Margreet Z Zwartveen and Dik Roth, 'Legal Complexity in the Analysis of Water Rights and Water Resources Management' in *Liquid Relations: Contested Water Rights and Legal Complexity* 1 (Dik Roth and others, Rutgers University Press 2005).

⁶ Lyla Mehta, 'Contexts and Constructions of Water Scarcity' (2003) 38 *Economic and Political Weekly* 5066.

⁷ Tom Perreault, 'What Kind of Governance for What Kind of Equity? Towards a Theorization of Justice in Water Governance' (2014) 39 *Water International* 233, 235.

sidelined in the participatory decision-making process in water management.⁸ This is more complex in the case of Dalit women.⁹

Everyday injustices in water include water quantity and quality issues, water access and distribution modes, and the discourse shaping water control.¹⁰ These everyday water injustices caused and widened by these elements could take different forms, ranging from inequitable access and allocations among water users to inter-sectoral water allocations with benefits skewed towards urban areas and industries.¹¹

Examples of these injustices take diverse forms. For instance, in the State of Rajasthan, during summer seasons, there are implicit and invisible influences of caste and social and economic hierarchy in determining the beneficiaries of water supplied through tankers by the local self-government units.¹² These political, social, and economic choices also determine the beneficial areas of government-sponsored water supply schemes, as evident in the example of implementing an aided water supply scheme in Kerala.¹³ A detailed analysis of the areas where the scheme was implemented in the state of Kerala in a phased manner in the early 2000s points to the influence of power and politics in the determination of areas other than water scarcity.¹⁴

On the other hand, the law and policy framework focus on equality among water users without unpacking the influences these socioeconomic factors create in determining water beneficiaries at the local level. The mainstream water governance discourses, based primarily on human rights principles of equality, fairness, and inclusiveness, insufficiently focus on these factors that trigger and form the

⁸ Margreet Zwarteveen, 'Men, Masculinities and Water Powers in Irrigation' (2011) 1 *Water Alternatives* 111.

⁹ Swarup Dutta, Ishita Sinha and Adya Parashar, 'Dalit Women and Water: Availability, Access and Discrimination in Rural India' (2019) 11 *Contemporary Voice of Dalit* 241.

¹⁰ K J Joy and others, 'Re-Politicising Water Governance: Exploring Water Re-Allocations in Terms of Justice' (2014) 19(9) *Local Environment* 954.

¹¹ (Forms of injustices do not end with these two forms but could also take injustices in a trans-boundary context, which is beyond the discussion here.).

¹² (From interviews conducted among water users during the field visit done in districts of Jhunjhunu, Alwar and Jaipur in 2019 as the part of first author's doctoral research.).

¹³ Press Trust of India, 'Japan-Aided Water Scheme Launched in Kerala' Thiruvananthapuram News, *Times of India* (Cherthala 17 August 2003) <<https://timesofindia.indiatimes.com/city/thiruvananthapuram/Japan-aided-water-scheme-launched-in-Kerala/articleshow/134758.cms>> accessed 17 November 2020.

¹⁴ See, Chapter 4, Gayathri D Naik, *Water Justice and Groundwater Subsidies in India: Equitable and Sustainable Access and Regulation* (Routledge Taylor & Francis Group 2024). (Here the author through extensive fieldwork done in Kerala points to various social and economic disparities, widened by political choices in determining beneficial areas of water supply schemes. In this example of Japan aided project, the constituencies chosen for implementation were represented by the then-ruling party. Despite the ongoing struggle in Plachimada on water scarcity and water over exploitation issues, Plachimada village in Palakkad district failed to receive attention in the initial years of implementation of this scheme.).

cause of everyday water injustices.¹⁵ For instance, the drinking water schemes in India emphasise the quality and quantity of water resources required for drinking water and lay down the responsibilities of various governments in water supply and management. Nevertheless, determining the implementing areas and beneficiaries of the scheme heavily depends on different social and economic factors and political choices.¹⁶ Similarly, the groundwater regulations in various states based on the model framework circulated by the central government fail to consider the local hydrogeological, social, and economic elements that influence groundwater over-exploitation in the respective states.¹⁷

Considering the role of water resources in the water and food security of the nation and its nature as a fundamental right to enjoy the right to life, it is essential to unpack and understand the injustices in the water sector- their form and causes. Such an unpacking is quintessential to reconceptualising water governance in India to ensure just sustainability, where social and distributive justice among water users and the protection of water resources and their ecosystem is possible.

A. HISTORIC SOCIAL DISCRIMINATIONS AND INEQUITABLE WATER ACCESS AND ALLOCATIONS

Water access and allocations in India have not always been equitable and inclusive. Social injustices determine the everyday water injustices in access and allocations.¹⁸ For instance, caste-based discrimination depriving socially and economically weaker sections of society of their fundamental human rights continues to determine water access and allocations in different parts of the country.¹⁹ Such discrimination overrides the constitutional mandate of equality, liberty, fraternity, and various constitutional and statutory measures to abolish untouchability.²⁰ The instances of untouchability and social discrimination followed in various parts of the country are violative of constitutional values and principles and are a crime against the Constitution.²¹

¹⁵ Rutgerd Boelens, Tom Perreault and Jeroen Vos, *Water Justice* (Cambridge University Press 2018).

¹⁶ Gayathri D Naik, *Water Justice and Groundwater Subsidies in India: Equitable and Sustainable Access and Regulation* (Routledge 2024). (This book discusses various aspects of these interventions from the empirical research conducted in Kerala and Rajasthan.).

¹⁷ *ibid.*

¹⁸ Upendra Baxi, 'Untouchable's Access to Water: Two Moralities of Law Enforcement?' in Upendra Baxi (ed), *Law and Poverty: Critical Essays* (N M Tripathi Private Limited 1988) 186.

¹⁹ 'Caste Discrimination in UP's Bundelkhand is Worsening the Water Woes of Dalits' <<https://thewire.in/caste/caste-discrimination-in-ups-bundelkhand-is-worsening-the-water-woes-of-dalits>> accessed 5 March 2020; 'Dalits Not Allowed to Touch Water, Tankers Servicing Upper Caste Villages in UP's Bundelkhand' *India News* <<https://www.indiatoday.in/india/story/dalits-not-allowed-to-touch-water-tankers-servicing-upper-caste-villages-in-up-bundelkhand-1560960-2019-07-03>> accessed 5 March 2020.

²⁰ Amit Thorat and Omkar Joshi, 'The Continuing Practice of Untouchability in India: Patterns and Mitigating Influences' (2015) 55 *Economic and Political Weekly* 36.

²¹ *State of Karnataka v Appa Balu Ingale* 1995 Supp (4) SCC 469; AIR 1993 SC 1126.

Discrimination in water access and allocations and the stigma of untouchability against Dalits not only violate social justice but also deny them fundamental human rights and dignity.²² Nevertheless, such instances are rampant in different forms. Reports and studies point to caste-based discriminatory practices in accessing public water utilities and insufficient access to welfare programs hindering the progress of downtrodden communities.²³

For instance, caste affiliations determine the membership of tube-well collectives and groundwater sharing, leading to inequitable resource access and use, which is unfavourable to landless farmers from lower communities.²⁴ The closer interconnections between land and water aggravate inequity in water access and allocations as land ownership patterns in India generally skew towards the upper caste. In most parts where informal groundwater markets continue to regulate groundwater access and allocations in rural areas, lower caste farmers take the form of sharecroppers and water buyers tied to the labour market for agriculture, and the landlords exhibit the nature of water sellers or water lords for these tenants. This relationship between water lords and labourers in informal water markets reflects historical influences and is a product of particular social and economic intertwining.²⁵

The impacts of social discrimination and economic disparities among water users aren't confined to these informal water markets or rural water access and allocations, but also to the access and allocations of formal water supply schemes. Research conducted in various parts of the country reiterates these arguments where the piped water supply depends on the social and economic situations of the residents.²⁶ The informal habitats and socially and economically downtrodden community habitats in several areas remain uncovered despite the introduction of targeted water supply schemes.

²² Oliver Mendelsohn, *Law and Social Transformation in India* (Oxford University Press 2014); Rakesh Tiwary, 'Explanations in Resource Inequality-Exploring Schedule Caste Position in Water Access Structure' (2006) 2 *International Journal of Rural Management* 85; Deepa Joshi, 'The Role of Water in an Unequal Social Order in India' in Anne Coles and Tina Wallace (eds), *Gender, Water and Development* (BERG 2005).

²³ Rakesh Tiwary and Sanjiv J Phansalkar, 'Dalits' Access to Water: Patterns of Deprivation and Discrimination' (2007) 3 *International Journal of Rural Management* 43.

²⁴ Anjal Prakash, *The Dark Zone: Groundwater Irrigation, Politics and Social Power in North Gujarat* (Orient Longman 2005); Navroz K Dubash, *Tubewell Capitalism: Groundwater Development and Agrarian Change in Gujarat* (Oxford University Press 2002); Navroz K Dubash, 'Ecologically and Socially Embedded Exchange: "Gujarat Model" of Water Markets' (2000) 35 *Economic and Political Weekly* 1376.

²⁵ *ibid.*

²⁶ (Socio-legal research was conducted in parts of Rajasthan and Kerala as part of the first author's PhD research. The social and economic factors determine the water supply especially in summer months when the State assures water supply through tankers. The political choices also determine the scope of implementing areas and selecting beneficiaries, though this hasn't received adequate mainstream attention in legal discourse on right to water and state's duty in water supply and management.).

Neither the rights-based approach, as pointed out in subsequent sections, nor the water supply schemes introduced by the executive emphasise the need to address the root causes of water access and allocation issues and the consequent questions of inclusiveness and equity aimed at water users. Instead, the current mainstream water governance model focuses on ensuring equality of opportunity among citizens to access and utilise formal water supply or prioritise the issues of water pollution/environmental pollution.²⁷

III. EXPLORING THE CURRENT WATER GOVERNANCE AND REGULATORY PATTERNS IN INDIA: PERPETUATING INEQUITIES AND UNSUSTAINABILITY

The current water governance and regulatory patterns in India are pluralistic and fragmented, where the constitutional division of legislative powers between the Centre and states, pollution control laws, drinking water schemes, irrigation laws, and judicial decisions reign in the regime.²⁸ In addition, property rights-based regulatory patterns govern groundwater access and allocation, overriding all constitutional principles of distributive justice and judicial decisions on the human right to water.²⁹

This pluralistic and fragmented approach to water governance opens the scope for divergent interpretations of water governance. On the one hand, the judiciary upholds a right-based approach in drinking water governance with the duty bestowed on the State.³⁰ In contrast, the approaches of the executive-run administrative directions consider water as a public good.³¹

While the judiciary recognises and upholds the right to water as a fundamental right based on constitutional principles of equality, justice and fairness, the executive follows a welfarist approach in water supply schemes. The welfarist approach of the State and its implementation depends on the technical and

²⁷ Philippe Cullet, 'Fostering the Realisation of the Right to Water: Need to Ensure Universal Free Provision and to Recognise Water as a Common Heritage' (2019) 31 *National Law School of India Review* 111.

²⁸ Philippe Cullet, *Water Law, Poverty, and Development: Water Sector Reforms in India* (OUP 2009) 141.

²⁹ Philippe Cullet, 'Fostering the Realisation of the Right to Water: Need to Ensure Universal Free Provision and to Recognise Water as a Common Heritage' (2019) 31 *National Law School of India Review* 111 ; Chhatrapati Singh (ed), *Water Law in India* (Sweet & Maxwell Ltd 1992) 17; Chhatrapati Singh, *Water Rights and Principles of Water Resources Management* (N M Tripathi 1991) 39 ('*Water Rights and Principles*').

³⁰ *Subhash Kumar v State of Bihar* (1991) 1 SCC 598; *Vishala Kochi Kudivella Samrakshana Samithi v State of Kerala* 2006 SCC OnLine Ker 63; (2006) 1 KLT 919.

³¹ Philippe Cullet, 'Fostering the Realisation of the Right to Water: Need to Ensure Universal Free Provision and to Recognise Water as a Common Heritage' (2019) 31 *National Law School of India Review* 111.

financial capabilities, while the rights-based approach of the judiciary considers water as an entitlement where the State is bound to respect, protect and fulfil it as a right.

These divergent approaches fail to consider the inherent inequities in the water sector, causing everyday water injustices in its access and allocations and the influence of elements like social and economic discriminations and political choices in perpetuating these inequities.

Additionally, the ambiguity in water governance driven by the two factors contributes to inadequate attention to the causes of inequities in water access and allocations. Firstly, the excessive focus on water 'quality' by the statutes and judicial decisions. While the environmental law statutes adopt a command-and-control approach to quality control by abating and mitigating pollution, the judicial contribution to pollution control is a mix of command, control, and precaution. The judiciary applies environmental law principles like polluter pay principles and a precautionary approach to water pollution.³²

Secondly, despite the rights-duties paradigm upheld by the judiciary in water governance, the absence of an explanation of its content and scope opened loopholes for broader perspectives on the 'nature' of water. The water supply schemes' approaches to water differed from a social right to a socio-economic good to a public right.

The 'scope of coverage of quality control' and the 'approaches to the nature of water' in governance add to the need to reconceptualise our water governance based on the water justice approach. This paper explores the latter, divergent approaches to 'water' to argue for the need to reconceptualise water governance on a water justice approach.

A. EMPHASISING ON RIGHTS-BASED APPROACH: JUDICIAL ASSERTIONS

The Supreme Court's interpretation of the right to the environment as an essentiality for the enjoyment of the right to life - "*A hygienic environment is an integral facet of the right to a healthy life, and it would be impossible to live with human dignity without a humane and healthy environment.*"³³ It led the way to balance economic development and environmental protection, and it read several other human rights, like water and air, as essentialities for the enjoyment of the right to life.³⁴

³² *Vellore Citizens' Welfare Forum v Union of India* (1996) 5 SCC 647; C M Abraham and Armin Rosencranz, 'An Evaluation of Pollution Control Legislation in India' (1986) 11 *Columbia Journal of Environmental Law* 101.

³³ *Virender Gaur v State of Haryana* (1995) 2 SCC 577.

³⁴ *Subhash Kumar v State of Bihar* (1991) 1 SCC 598.

Water governance in India has received exemplary contributions from judicial interventions. The judicial contribution to the environmental governance in the country strengthened the development of a strong water governance framework with more state control over water governance and upholding a rights-based approach. From recognising a rights-based approach in drinking water³⁵ to the application of several environmental law principles in its regulation and management,³⁶ The contribution now reflects adopting an eco-centric form of water governance where rivers are recognised as legal subjects.³⁷

1. *More State's Duty Focused: Rights-based Water Governance Envisaged by Courts*

The constructive contribution of an active judiciary to the human rights jurisprudence saw the non-justiciable directives to the State included in Part IV receiving harmonious interpretation with Part III, recognising its significance and integral role in the realisation of several fundamental rights.³⁸ Part IV of the Constitution of India includes several socio-economic rights envisaged to act as aspirational goals for implementing equitable and fair resource distribution in the country, mandating the state to direct its policies towards securing that 'the ownership and control of material resources of the community are so distributed as best to subserve the common good.'³⁹

The harmonious interpretation of Part III and Part IV was an attempt to foreground the hitherto sidelined social rights with a significant role in the welfare state. Such interpretations are also signs of courts' willingness to move beyond the *status quo* on international human rights jurisprudence in recognition of the essential role of social rights in the enjoyment of civil and political rights.⁴⁰

In environmental jurisprudence, this harmonious approach to Part III rights and Part IV Directive Principles of State Policy ('DPSP') saw two developments: recognition of several key social rights as fundamental rights and more

³⁵ Philippe Cullet, 'Right to Water in India – Plugging Conceptual and Practical Gaps' (2013) 17 *The International Journal of Human Rights* 56.

³⁶ *Vellore Citizens' Welfare Forum v Union of India* (1996) 5 SCC 647; Nupur Chowdhury, 'Sustainable Development as Environmental Justice Exploring Judicial Discourse in India' (2016) 51 *Economic & Political Weekly* 84.

³⁷ Katie O'Bryan, 'Legal Rights for Rivers' (2022) 50 *Georgia Journal of International & Comparative Law* 769.

³⁸ S P Sathe, *Judicial Activism in India* (2nd edn, Oxford University Press 2003); S P Sathe, 'Judicial Activism: The Indian Experience' (2001) 6 *Wash U J L & Pol'y* 29; *Minerva Mills Ltd. v Union of India* (1980) 3 SCC 625.

³⁹ Constitution of India, art 39(b).

⁴⁰ David Bilchitz, *Poverty and Fundamental Rights: The Justification and Enforcement of Socio-Economic Rights* (Oxford University Press 2008) 2.

state control and role in ensuring these rights, especially by applying public trust doctrine.⁴¹

The rights-based approach adopted by the judiciary was extensively used to ensure state responsibility and accountability, evolving from the DPSPs and the right to life under Art 21 of the Constitution.⁴² In the realisation of the water right⁴³ Including assuring and regulating water supply, helping the citizens realise the right to healthy water, and preventing health hazards from unsafe water.⁴⁴ The courts recognised and applied the rights-duty interface in water; however, it could not find its place in any legislative or executive measures. The absence of recognition of water as an entitlement in water supply schemes is the causing factor of several everyday water injustices among water users.⁴⁵

The judiciary asserted more state role and control in water governance by applying several international environmental law principles to address the increasing pollution concerns and consequent impacts on human rights.⁴⁶ The development of environmental jurisprudence in India refutes the regulatory private law approach of common law, transcends all forms of conceptualisations, and accommodates mutually exclusive concepts and ideologies.⁴⁷

The trajectory of cases that dealt with environmental issues in India and the court's approach reflects a transition to 'constitutional inclusion' with more constitutional law remedies from statutory or private law remedies.⁴⁸ On several occasions, the courts remained the State as the trustee of all natural resources which are by nature meant for public use and enjoyment. The State is under a legal duty to protect natural resources and cannot convert those resources into private ownership.⁴⁹

The trusteeship of the state, the public trust doctrine applied in water governance, reflects a rights and duties paradigm that helps the citizens to make the state accountable for its responsibilities and actions that help them realise their fundamental right to water. Nevertheless, despite the judicial interpretation of

⁴¹ Gayathri D Naik, 'The Right to a Clean Environment in India: Gender Perspective' (2020) 21 Vermont Journal of Environmental Law 371; *Vishala Kochi Kudivella Samrakshana Samithi v State of Kerala* 2006 SCC OnLine Ker 63.

⁴² *P R Subas Chandran v State of A.P.* 2001 SCC OnLine AP 746; (2001) 5 ALD 771.

⁴³ *Vishala Kochi Kudivella Samrakshana Samithi v State of Kerala* 2006 SCC OnLine Ker 63.

⁴⁴ *D Viswanatha Reddy and Co v State of A.P.* 2002 SCC OnLine AP 444; (2002) 4 ALD 161.

⁴⁵ Philippe Cullet, 'Is Water Policy the New Water Law? Rethinking the Place of Law in Water Sector Reforms' (2012) 43 *IDS Bulletin* 69.

⁴⁶ Michael R Anderson, 'International Environmental Law in Indian Courts' (1998) 7(1) *Review of European Community & International Environmental Law* 21, 27.

⁴⁷ C M Abraham, *Environmental Jurisprudence in India* (Kluwer International 1999) 3.

⁴⁸ Jeff King, *Judging Social Rights* (Cambridge University Press 2012).

⁴⁹ *M C Mehta v Kamal Nath* (1997) 1 SCC 388; Jona Razzaque, 'Application of Public Trust Doctrine in Indian Environmental Cases' (2001) 13 *Journal of Environmental Law* 221.

a rights-duties paradigm in water governance implemented, making the state accountable through the public trust doctrine sometimes fails to address the social and economic injustices in the water sector. For instance, Public Trust Doctrine ('PTD') could not change the *status quo* in groundwater regulation with its land-water nexus, impairing the realisation of the right to water for landless communities.⁵⁰ This ambiguity in its application to water resources, particularly the groundwater resources, which support more than 3/4th of the country's water needs, also contributes to the issues of equity and inclusiveness in water access and allocations created by social and economic elements.⁵¹ The groundwater sector continues to be regulated by the common law framework of the land-water nexus developed through judicial decisions in 19th century Britain.⁵² This land-water nexus that reflects the property owner's rights over groundwater resources beneath his land perpetuates inequities between the landowner and the landless.⁵³ Despite attempts to regulate groundwater development and management through statute and the judiciary's application of PTD to all water resources, the land-water nexus continues, perpetuating concerns of inequities.

B. BEYOND RIGHTS-BASED APPROACH: NEOLIBERALIST ASSERTIONS IN EXECUTIVE DIRECTIONS

Different perceptions and approaches to the governance of a natural resource are the root cause of all inequities and injustices among its users. In the water sector, other perceptions and concepts are used in India to manage, regulate, and govern water resources.

The rights-based approach to water governance, where the State possesses the duty to ensure drinking water for all and to protect water resources as a trustee under PTD, projected and promoted by the judiciary, has not received any attention or recognition from the two other organs of the State. Neither the legislature nor the executive recognised this rights-based approach in water governance, leading to diverse perceptions of water management.⁵⁴ This opened the

⁵⁰ Gayathri D Naik, *Water Justice and Groundwater Subsidies in India: Equitable and Sustainable Access and Regulation* (Routledge 2024).

⁵¹ Swarup Dutta, Ishita Sinha and Adya Parashar, 'Dalit Women and Water: Availability, Access and Discrimination in Rural India' (2018) 4 *Journal of Social Inclusion Studies* 62; 'Caste Discrimination in UP's Bundelkhand is Worsening the Water Woes of Dalits' <<https://thewire.in/caste/caste-discrimination-in-ups-bundelkhand-is-worsening-the-water-woes-of-dalits>> accessed 5 March 2020.

⁵² *Acton v Blundell* (1843) 12 M & W 324; *Chasemore v Richards* (1859) 7 HLC 349.

⁵³ Philippe Cullet, 'Groundwater Law in India: Towards a Framework Ensuring Equitable Access and Aquifer Protection' (2014) 26 *Journal of Environmental Law* 55.

⁵⁴ Philippe Cullet, 'Fostering the Realisation of the Right to Water: Need to Ensure Universal Free Provision and to Recognise Water as a Common Heritage' (2019) 31 *National Law School of India Review* 111; Philippe Cullet, 'Is Water Policy the New Water Law? Rethinking the Place of Law in Water Sector Reforms' (2012) 43 *IDS Bulletin* 69.

venue for the executive's adoption of divergent approaches on a non-right basis, which considers water as a good rather than a right.

Water governance in India is also informed and influenced by two other approaches: firstly, water as a private property right attached to land rights followed in current groundwater governance.⁵⁵ Secondly, water as a public good is characterised by various water supply schemes under the influence of global developments in the water sector.⁵⁶

These two approaches significantly influence equity and inclusiveness in realising the right to water in India. The private property rights regulating groundwater access and allocations complicate the social and economic factors that influence inequities in the water sector. The ambiguity in applying the public trust doctrine to this water resource controlled and managed by the land-water nexus further aggravates the private control issues in water allocations.

The executive-run administrative directions follow the second approach in water supply schemes. With water considered a good, under the influence of neo-liberalist policies and developments, concerns about equity and inclusiveness arise as the role of the State moves from supplier to facilitator. As highlighted here, any change in the State's role to a narrow ambit can deleteriously affect water users, particularly those from socially and economically backward communities. This impact, however, fails to get adequate attention from the mainstream legal discourse on water governance.

2. *Water Linked to Private Property Right: Reflections from Land-Water Nexus in Groundwater*

As pointed out above, the rights-based approach in the water sector and its realisation is restricted by property-based regulations in groundwater and the influence of neoliberalist policies on water supply schemes. The common law era land-water nexus continues to determine groundwater access and allocations in the country.⁵⁷ The regulatory framework and its nature and content are highly significant in the context of groundwater, which supports most of the country's water needs, contributing to its socio-economic development and ensuring water and food security.⁵⁸ With more than 80% of drinking water needs supported in rural areas and a considerable section of the urban population depending on this

⁵⁵ Philippe Cullet, 'Groundwater Law in India: Towards a Framework Ensuring Equitable Access and Aquifer Protection' (2014) 26 *Journal of Environmental Law* 55.

⁵⁶ (Compare the water supply schemes from Accelerated Rural Drinking Water Supply Programme to current Jal Jeevan Mission.).

⁵⁷ Easements Act 1882, s 7, Illustration (g).

⁵⁸ Rajmohan Panda, 'A Growing Concern: How Soon Will India Run Out of Water?' 1 *Journal of Global Health* 135.

resource, groundwater also forms the backbone of the country's drinking water sector.⁵⁹

The land-water-based regulatory framework that considers groundwater a chattel attached to land was developed in industrial-era England through various ordinary law judgements when there was limited knowledge of the hydrological link between surface water and groundwater.⁶⁰ This legal framework dominates groundwater regulation in India, recognising the landowners' absolute "*right to collect and dispose within his limits of all water under the land which does not pass in a defined channel*"⁶¹ despite many disagreeing with the nature of groundwater as an easement right.⁶²

It recognised the landowner's right over water resources beneath his land and his right to use it, implying that those who enjoyed community rights over the land and the land less were left out.⁶³ However, this property rights-linked regulatory framework is inequitable, with land rights distribution not being equitable and just.

Adding to these inequitable and unsustainable regulatory patterns, the interventions of social factors like caste, gender, religion, economic disparities, and political choices in determining implementing areas and beneficiaries of water supply schemes aggravate the equity crisis in the water sector.⁶⁴ In many parts of India where state water supply exists, there are incidents where lower-caste and poor sections still lack access to formal water supply. Questions of equal access to water allocations arise when these water supply schemes are mainly derived from groundwater sources.

The property rights linked to groundwater access and allocations also challenge water use in irrigation water use. With property rights skewed towards

⁵⁹ Himanshu Kulkarni and P S Vijay Shankar, 'Groundwater Resources in India: An Arena for Diverse Competition' (2014) 19 *Local Environment* 990.

⁶⁰ Philippe Cullet, *Water Law, Poverty, and Development: Water Sector Reforms in India* (Oxford University Press 2009) 47.

⁶¹ Easements Act 1882, s 7, Illustration (g); N S Soman, 'Legal Regime of Underground Water Resources' (2008) *Cochin University Law Review* 147.

⁶² M S Vani, 'Groundwater Law in India: A New Approach' in Ramaswamy R Iyer (ed), *Water and the Laws in India* (Sage 2009) 435.

⁶³ Sujith Koonan, 'Revamping the Groundwater Legal Regime in India: Towards Ensuring Equity and Sustainability' (2016) 12(2) *Socio-Legal Review* 45, 46; M S Vani, 'Groundwater Law in India: A New Approach' in Ramaswamy Iyer (ed) *Water and the Laws in India* (Sage 2009) 436, 442; Philippe Cullet, 'Groundwater Law in India: Towards a Framework Ensuring Equitable Access and Aquifer Protection' (2014) 26(1) *Journal of Environmental Law* 55, 56; Philippe Cullet, *Water Law, Poverty, and Development: Water Sector Reforms in India* (OUP 2009) 127; Chhatrapati Singh (ed), *Water Law in India* (Sweet & Maxwell 1992) 17; Chhatrapati Singh, *Water Rights and Principles of Water Resources Management* (N M Tripathi Pvt Ltd 1991) 39.

⁶⁴ Gayathri D Naik, *Water Justice and Groundwater Subsidies in India: Equitable and Sustainable Access and Regulation* (Routledge Taylor & Francis Group 2024).

upper castes and men in India, the land-water nexus in groundwater access and allocations impairs the right to water and water for food for several sections of people.⁶⁵ In most cases, wealthy landlords could turn to water lords enjoying immunity from the law as groundwater extraction and its consequences on your neighbour constitute only *damnum sine injuria*.⁶⁶ Political, economic, and social interventions in water access and distribution impede water security in the drinking water sector and irrigation for many small and marginal-scale farmers, women farmers, and landless tenants.⁶⁷

The property rights intersection in groundwater access, thus, reduces the scope of access and allocations to the land-owning communities only. The influence of property rights in groundwater regulation denies landless people the option to access these water resources. The property rights determined by caste, gender, and religion in different parts are inequitable to landless SC, STs, and women.⁶⁸ This restricted scope of water access is further complicated by the influence of neoliberalism in water governance, which has two implications: water as a good and the shifting of the state from a supplier to a facilitator.

3. *Water as a Public Good*

There is a conspicuous absence of a rights-based approach in the current water supply schemes where the State's welfarist, paternalistic approach gets reflected more than a duty-oriented approach envisaged by the judicial decisions.⁶⁹ The nature of water in water supply schemes changed from a basic need in the first water supply scheme, the Accelerated Rural Drinking Water Supply Scheme, to a 'social right' in Rajiv Gandhi National Drinking Water Mission ('RGNDWM') in 1999.⁷⁰ With the influence of more neo-liberalist approaches in the water sector and water governance, the nature of water shifted to 'socio-economic good.'⁷¹ or a 'public good'⁷² from a social right recognised in the

⁶⁵ Gayathri D Naik, *Water Justice and Groundwater Subsidies in India: Equitable and Sustainable Access and Regulation* (Routledge 2024).

⁶⁶ Chhatrapati Singh, *Water Rights and Principles of Water Resources Management* (N M Tripathi 1991) 39.

⁶⁷ High Level Panel of Experts, *Water for Food Security and Nutrition: A Report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security* (FAO 2015) 13.

⁶⁸ Deepa Joshi, 'Caste, Gender and the Rhetoric of Reform in India's Drinking Water Sector' (2011) 46 *Economic and Political Weekly* 56; Farhat Naz, 'Water, Water Lords, and Caste: A Village Study from Gujarat, India' (2015) 26 *Capitalism Nature Socialism* 89.

⁶⁹ (A closer analysis of the drinking water schemes implemented in India point to this absence of a rights-based language).

⁷⁰ Department of Drinking Water Supply, 'Accelerated Rural Water Supply Programme Guidelines (1999-2000)' (Government of India 1999).

⁷¹ Department of Drinking Water Supply, 'Guidelines on Swajaldhara, 2002'.

⁷² Department of Drinking Water & Sanitation, 'Guidelines on National Rural Drinking Water Programme', Rajiv Gandhi Drinking Water Mission (Government of India 2013).

Accelerated Rural Drinking Water Supply Scheme. Water is never treated as an entitlement.

The terminology connotes the approaches of the State to water in two aspects: the nature of water and its role in assuring it. With water considered a good rather than a right, the rights-duties paradigm promoted by the judiciary will never find its way into executive-run water supply schemes. The ability to pay for water determines its access and allocations, leading to exclusions of many sections⁷³ and aggravating the complexities of existing injustices.

Each terminology is also associated with changes in approaches and the role of the State in water supply. From a direct supplier to a facilitator, the State's role has changed ever since the introduction of the first water supply scheme, with the increasing role and influence of several international developments like the Dublin Statement 1994⁷⁴ and interference of actors like the World Bank. The changes in this terminology and the approach of the state to water as a 'good' also creates reverberations about the nature of water supply, determinants of access and allocations, equity and inclusiveness among water users, and the sustainability of water resources.

The neoliberalist policies in the water sector visualise the state as a facilitator rather than a water supply supplier. There is less of a State role when water is a public good or property right. While the state steps in the shoes of the facilitator, its role in water supply is limited.⁷⁵ In previous schemes, which had more of a state role in supplying water, a more participatory approach is adopted in the new schemes. The ability to pay determines beneficiaries, and with less of the state's role, the scope of subsidies for the poorer sections is limited.⁷⁶

These divergent approaches by the judiciary and executive branch have led to ambiguity and complexities in water governance, where equity and inclusiveness issues remain sidelined. The current regulatory framework, with a pluralistic approach and the property rights linked to groundwater regulations, increases the gravity of the problems in water governance, where the sustainability of sources fails to get adequate attention due to its anthropogenic bias. For this, a

⁷³ Preeti Sampat, 'Swajaldhara or "Pay"-Jal-Dhara: Right to Drinking Water in Rajasthan' (2007) 42 *Economic and Political Weekly* 102; A J James, 'From Sector Reform to Swajaldhara — Scaling Up in India' (2004) 23 *Waterlines* 11.

⁷⁴ World Meteorological Organisation, *The Dublin Statement*, International Conference on Water and the Environment: Development issues for the 21st Century (26-31 January 1992, Dublin, Ireland).

⁷⁵ Department of Drinking Water Supply, 'Accelerated Rural Water Supply Programme Guidelines (1999-2000)' (Government of India 1999).

⁷⁶ Gayathri D Naik, *Water Justice and Groundwater Subsidies in India: Equitable and Sustainable Access and Regulation* (Routledge 2024).

reconceptualisation of water governance is essential, and adopting a framework of water justice based on sustainability is feasible.

IV. ARGUING FOR RECONCEPTUALIZATION OF WATER GOVERNANCE: JUST SUSTAINABILITY APPROACH FOR BALANCING ANTHROPOCENTRIC AND ECO-CENTRIC WATER DEMANDS

A just and sustainable approach to water governance is essential to balance the ever-increasing demands of human needs and water resources protection. Adopting a just and sustainable approach, drawing inspiration from the 'just sustainability approach,' could assure social and distributive justice among water users, addressing the inequities in water access and allocations. This approach can also be a way to promote sustainable water utilisation to ensure water resource conservation and uphold the water demands of the ecosystem.

The anthropogenic bias in the current water governance, where human rights get prioritised over environmental water demands, reflects a complexity of the human rights versus nature's rights paradigm, warranting the need to move towards a just, sustainable water governance.

The existing framework adopted for water conservation highlighted through the public trust doctrine applied since the landmark decision of *M.C. Mehta v Kamal Nath*⁷⁷ brings more State control over access, allocation, management, and governance, moving away from private control over these essential resources. The PTD shifts the control over these resources from the private realm to State control, which holds it as a trustee for its citizens—present and future generations.⁷⁸ More State control could ease the inequities caused by social and economic discrimination in water access and allocations and reduce private rights control over a common pool resource.⁷⁹

Nevertheless, due to its inherent bias towards human rights, the PTD is also insufficient to balance this human-nature water demand. Though the control over water resources under the public trust doctrine shifts from individual to state, the property rights nexus with water remains intact. For instance, applying public trust to groundwater governance could bring State assertion over water management. Still, the land-water nexus in water access remains the same, with the control now moved to the State from the earlier individual control.

⁷⁷ *M C Mehta v Kamal Nath* (1997) 1 SCC 388.

⁷⁸ Jona Razzaque, 'Application of Public Trust Doctrine in Indian Environmental Cases' (2001) 13 *Journal of Environmental Law* 221.

⁷⁹ Gayathri D Naik, 'Groundwater Regulation in India: Applicability of Public Trust Doctrine and Right to Participation in Decision Making to Achieve Right to Water' in *The Asian Yearbook of Human Rights and Humanitarian Law* 327 (Javaid Rehman and Ayesha Shahid (eds), Brill Nijhoff 2018) 327.

PTD can bring more State control, assuring sustainable water access and allocation for the human right to water by mitigating inequities and injustices created by private control over water resources. Still, it doesn't mainstream the injustices caused to ecosystem and water source sustainability. Hence, it is essential to move beyond these current water governance patterns to adopt a framework that addresses both inequity and inclusiveness among water users and the source sustainability of water resources. Considering climate change's impacts on water sources and its reverberations on the human right to water, adopting such a framework that mainstreams environmental concerns and addresses human factors that widen inequities in realising the human right to water is the need of the hour.

This paper argues that adopting the concept of just sustainability as a guiding principle in the water governance framework could address the concerns of equity and inclusiveness among water users by balancing the environmental sustainability issues. The equity issues among users should be mainstreamed along with sustainability in environmental protection, as both equity and sustainability are essential in resource management and conservation.⁸⁰

A. JUST SUSTAINABILITY: BRINGING TOGETHER SUSTAINABILITY IN WATER CONSERVATION AND ENVIRONMENTAL JUSTICE AMONG WATER USERS

Ensuring equity and inclusiveness among water users and preserving water resources to ensure ecosystem water demands are always challenges, with questions and debates of anthropocentrism and eco-centrism involved. This paper argues for just sustainability-based water governance in this context.

Environmental governance discourse in India applies principles like polluter pays, the precautionary principle, sustainable development, and public trust doctrine to ensure accountable state actions in development and ecological preservation.⁸¹ These principles applied to combat water quality and quantity depletion emphasise sustainable development of natural resources by entrusting the state as the trustee of all water resources to remove all unsustainable encroachments and exploitations.⁸²

⁸⁰ Duncan McLaren, 'Environmental Space, Equity and the Ecological Debt' in Julian Agyeman, Robert Doyle Bullard and Bob Evans (eds), *Just Sustainabilities: Development in an Unequal World* (Routledge 2003) 19.

⁸¹ Lavanya Rajamani, 'The Right to Environmental Protection in India: Many a Slip between the Cup and the Lip?' (2007) 16 *Review of European Community and International Environmental Law* 274.

⁸² *Vellore Citizens' Welfare Forum v Union of India* (1996) 5 SCC 647; *M C Mehta v Kamal Nath* (1997) 1 SCC 388.

However, the scope of water justice in water governance, despite these environmental/water management principles, is limited on two counts. Firstly, though these principles aim to reduce the anthropogenic impacts on water resources, the inherent bias in their objective and rationale to protect water resources for human water needs limits their scope in assuring ecological sustainability. Secondly, these principles cannot ensure equity and inclusiveness, highlighting environmental justice among water users, as these principles don't cover social and distributive justice.

Scholars have highlighted that ecological protection, promoted through concepts of sustainable development, cannot be complete unless it addresses the problems of equity and justice in accessing ecological resources.⁸³ Sustainable development aims to ensure environmental protection and highlights the need to conserve resources for the benefit of future generations. Still, it fails to consider equity among the current generation, created by inequitable distribution of benefits and burdens in access and allocation of natural resources.⁸⁴ As discussed in the paper, social injustices and economic disparities among water users should inevitably be addressed equally while adopting measures for water conservation.⁸⁵

The notion of the intrinsic value of the environment is beyond explanation. Population growth and their subsequent expanding needs, the threat of climate change, consequent environmental damage, and recognition of the significance of the environment in ecosystem sustenance resuscitate the debate on environmental protection, sustainable development, and environmental justice among resource users.

The concept of environmental justice in resource management aims to mitigate this unjust distribution of ecological harm among vulnerable communities and ensure equitable access to environmental goods beyond class and race distinctions.⁸⁶ The environmental justice championing the 'disproportionate burden of environmental and health risks born by people of colour in places where they live, work, and play' argues for equitable benefit and burden sharing in natural resource access and allocations.⁸⁷

By bringing this environmental justice element to sustainable development-based water resource management, social justice concerns could also be

⁸³ Julian Agyeman, Robert D Bullard and Bob Evans, 'Exploring the Nexus: Bringing Together Sustainability, Environmental Justice and Equity' (2002) 6 *Space and Polity* 77.

⁸⁴ Julian Agyeman, 'Toward a "Just" Sustainability?' (2008) 22 *Continuum* 751, 752.

⁸⁵ Kulbhushan Balooni and L Venkatachalam, 'Managing Water for Sustainable Development: An Indian Perspective' (2016) 5 *IIM Kozhikode Society & Management Review* 7.

⁸⁶ Bunyan Bryant, *Environmental Justice: Issues, Policies, and Solutions* (Island Press 1995) 6.

⁸⁷ Robert D Bullard, 'Environmental Justice for All: It's the Right Thing to Do' (1994) 9 *Journal of Environmental Law and Litigation* 281; Robert D Bullard, 'Solid Waste Sites and the Black Houston Community' (1983) 53 *Sociological Inquiry* 273.

mitigated. By adopting those cultural norms and values, rules, regulations, behaviours, policies, and decisions to support sustainable communities, where people can interact with confidence that their environment is safe, nurturing, and productive, and people can realise their highest potential, without experiencing the “isms”, justice is served to beneficiaries of natural resources.⁸⁸

The twin aspects—sustainability, which mainstreams environmental protection and environmental justice, and social injustices in environmental resource access and allocations—are brought together in the idea of *just sustainability*. A governance approach which balances social justice issues and environmental/water resources sustainability is what we need in water governance in India to ensure the human right to water for all while preserving water resources conservation.

Julian Agyeman points out that just sustainability is “*the need to ensure a better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems.*”⁸⁹ Just sustainability implies a situation where sustainability adopts a distributive justice function where justice and equity are mainstreamed within the planetary limits.

4. *Just Sustainability: Reflections of ‘Redistributive Justice’ in Sustainability, Limited by Ecosystem Concerns*

The concerns of equity and inclusiveness occur when the benefits of environmental policy and the cost of environmental risk are not equitably shared.⁹⁰ Distributive justice in the environment refers to the equitable distribution of environmental risks and impacts among all sections of society.⁹¹ In natural resource management, fairness and justice in the access and allocation of resources is essential for distributive justice.⁹²

The twin aspects — justice and fairness through substantial and procedural elements — overcome the traditional exclusion, or under repetition of the affected in environmental matters, would produce more significant equity in accessing natural resources.⁹³ This distribution could be between states or individuals, as

⁸⁸ Bunyan Bryant, *Environmental Justice: Issues, Policies, and Solutions* (Island Press 1995) 6.

⁸⁹ Julian Agyeman, Robert D Bullard and Bob Evans (eds), *Just Sustainabilities: Development in an Unequal World* (Routledge 2003) 5.

⁹⁰ David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature: Theories, Movements, and Nature* (OUP 2007) 56.

⁹¹ Shrader-Frechette, *Environmental Justice: Creating Equality, Reclaiming Democracy* (OUP 2002) 25.

⁹² Ellen Hey, ‘Distributive Justice and Procedural Fairness in Global Water Law’ in Jonas Ebbesson and Phoebe Okowa (eds), *Environmental Law and Justice in Context* (CUP 2009) 351.

⁹³ Dinah Shelton, ‘Intergenerational Equity’ in Daniel Bodansky, Jutta Brunnee and Ellen Hey (eds), *The Oxford Handbook of International Environmental Law* (OUP 2008) 640; Philippe Cullet, *Differential Treatment in International Environmental Law* (Ashgate 2003); Thomas Franck, *Fairness in International Law and Institutions* (OUP 1995) 7; Micheal Akehurst, ‘Equity and General Principles of Law’ (1976) 25 *International and Comparative Law Quarterly* 801.

environmental justice also focuses on unwarranted burdens imposed on states or communities, not parties to creating ecological risk.⁹⁴ For instance, climate change and its effects on developing and least developed countries impose undue risk and burden on these countries for greenhouse emissions and consequent increase in global warming by developed countries.

Traditional distributive justice theories focus on equality or liberty by equitable distribution of primary goods, wealth, income, or entitlements.⁹⁵ Distributive justice in climate change issues traverses beyond these traditional theories, confined only to goods or entitlements in one state and among present generations. In contrast, the effects of climate change and environmental harm are transboundary and beyond generations.⁹⁶

The concept of just sustainability reinforces this redistribution element of environmental justice but with a rider—within the boundaries of supporting the ecosystem. Here, with these twin aspects—redistribution and ecosystem boundaries—the concept of just sustainability brings together environmental quality and human equality in resource governance.⁹⁷ It helps to deliver a new phase to sustainability where environmental conservation gets balanced with economic and social dynamics demanding equitable and inclusive resource allocations.

Foregrounding the concerns of the sustainability of the environment and natural resources is the rationale of sustainable development, which is where conservation and economic development get balanced. Yet the mainstreaming of social inequity and injustices the present communities face, especially the socially and economically downtrodden in equitable and inclusive access and allocations, remains inadequate. This gap could be filled with this concept of just sustainability, which prioritises equally this issue and environmental conservation in resource governance.

⁹⁴ Francis O Adeola, 'Cross-National Environmental Injustice and Human Rights Issues' (2000) 43 *American Behavioural Scientist* 686, 688; André Nollkaemper, 'Sovereignty and Environmental Justice in International Law' in Jonas Ebbesson and Phoebe Okowa (eds), *Environmental Law and Justice in Context* (CUP 2009) 253, 258.

⁹⁵ See John Rawls, *A Theory of Justice* (OUP 1971); Robert Nozick, *Anarchy, State and Utopia* (Basic 1974).

⁹⁶ Jutta Brunnée 'Climate Change, Global Environmental Justice and International Environmental Law' 316; Simon Caney, 'Cosmopolitan Justice, Responsibility, and Global Climate Change' (2005) 18 *Leiden Journal of International Law* 747; Lavanya Rajamani, 'The Principle of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime' (2000) 9 *Review of European Community and International Environmental Law* 120; Erika Melkas, 'Sovereignty and Equity within the Framework of the Climate Regime' (2002) 11 *Review of European Comparative and International Environmental Law* 115. (For discussions of justice among nations in climate change).

⁹⁷ Julian Agyeman, *Introducing Just Sustainabilities: Policy, Planning, and Practice* (Zed Books Ltd 2013).

B. NEED TO RECONCEPTUALISE WATER GOVERNANCE IN INDIA: THROUGH A JUST SUSTAINABLE MODEL ASSURING WATER AND CLIMATE JUSTICE

Water injustices in India manifest in two forms: material and social.⁹⁸ The material injustices could arise from inadequacy of quality and quantity of water supplied, accessed, and allocated. The social injustices in the water sector spring from the social injustices determining the benefits of water supply, accessing public water bodies, and determining water allocations.

The spectrum of issues in the water sector is vast, ranging from water scarcity, overexploitation, and pollution to the resulting consequences on the quality and quantity of water availability. These crises, competitions, and conflicts are often exacerbated by the interfaces of technological advancement and financial availability in exploring new sources and legal regulations that control water access, allocations, and management. The debates of privatisation, marketisation, and commodification of common pool resources further complicate the situation, widening the gap between the haves and have-nots.⁹⁹

These injustices that pervade the spheres of access, use, allocations, distribution, management, and control of water resources and are influenced by several socioeconomic, political, and technological factors get complicated in the case of transboundary water governance between different riparian states and nations.¹⁰⁰ It necessitates the immediate attention of scholars across multiple disciplines to find solutions for man-induced water issues like scarcity that severely affect source sustainability. Intense resource exploitation by water users in one region leads to quality and quantity degradation, consequent competition over scarce natural resources, and increased interventions of market and IFI in water policy frameworks that significantly influence access, allocations, and rights in water.¹⁰¹

⁹⁸ Lyla Mehta, 'Contexts and Constructions of Water Scarcity' (2003) 38 *Economic and Political Weekly* 5066; Lyla Mehta, 'Why Invisible Power and Structural Violence Persist in the Water Domain' (2016) 47 *IDS Bulletin* <<http://bulletin.ids.ac.uk/idsbo/article/view/2792>> accessed 25 March 2020.

⁹⁹ Khulekani Moyo, 'Privatisation of the Commons: Water as a Right; Water as a Commodity' *Law and Poverty Special Edition* (2011) 22 *Stellenbosch Law Review* 804; Karen Bakker, 'The "Commons" Versus the "Commodity": Alter-Globalization, Anti-Privatization and the Human Right to Water in the Global South' (2007) 39 *Antipode* 430; Kathleen O'reilly, '"They are Not of This House": The Gendered Costs of Drinking Water's Commodification' (2011) 46 *Economic and Political Weekly* 49.

¹⁰⁰ Gabriel Eckstein, *The International Law of Transboundary Groundwater Resources* (Routledge 2017). (For discussion on issues of transboundary groundwater and aquifers).

¹⁰¹ Rutgerd Boelens, Jeroen Vos and Tom Perreault, 'Introduction: The Multiple Challenges and Layers of Water Justice Struggles' in Rutgerd Boelens, Tom Perreault and Jeroen Vos (eds), *Water Justice* (CUP 2018) 3.

As discussed and highlighted in previous sections, water is a socially embedded and intertwined resource influenced by social relationships and customs worldwide. In India, the influence of social and economic factors on water governance and management results in indiscriminate access and allocation mechanisms. Social discrimination also extends to access and allocation of water resources, depriving the socially downtrodden of the benefits of a common pool resource.¹⁰² For instance, the much-acclaimed participatory model-based decentralised water management scheme introduced in Kerala with support from the World Bank — Jala Nidhi — had less participation from Dalit communities and households due to their social inabilities.¹⁰³

The influence of socio-economic, political, and legal processes shape and determine not only the exclusion and inclusion of people in access and control over water use and allocations, but also the unequal distribution of vulnerabilities of such decisions among communities. These factors and influences create newly determined power patterns in water management.¹⁰⁴

Recognising the impact of anthropocentric water use on ecological sustainability, adopting a water justice framework that balances anthropocentric and eco-centric water rights is not just a theoretical possibility but a tangible path towards positive change.¹⁰⁵ This framework in water governance brings new perspectives to water law and regulations by incorporating a more nuanced approach based on environmental law principles that reflect and promote ecological sustainability and social justice among the current generation of water users.

In the context of the water spectrum of injustices spanning the water sector from everyday water access and allocations to the policy-making process, the paper argues that reconceptualising water governance by adopting just sustainability can assure water justice. The increasing impact of climate change on water resources, sustainability, and water supply also underlines the necessity of a broader analysis of injustices in human water and towards nature and the adoption of a customised water justice framework informed by climate justice in current anthropogenic biased water governance.¹⁰⁶

¹⁰² Rakesh Tiwary and Sanjiv J Phansalkar, 'Dalits' Access to Water: Patterns of Deprivation and Discrimination' (2007) 3 *International Journal of Rural Management* 43.

¹⁰³ Madhav Govind and Abhilash Babu, 'Community Participation or Manufactured Consent? Strategies for Implementation of Drinking Water Project "Jalanidhi" in Kerala (India)' (2017) 13 *International Journal of Rural Management* 1.

¹⁰⁴ K J Joy and others, 'Re-Politicising Water Governance: Exploring Water Re-Allocations in Terms of Justice' (2014) 19 *Local Environment* 954.

¹⁰⁵ Özge Yaka, 'Rethinking Justice: Struggles for Environmental Commons and the Notion of Socio-Ecological Justice' (2019) 51 *Antipode* 353.

¹⁰⁶ Upendra Baxi, 'Intergenerational Justice, Water Rights, and Climate Change' in Philippe Cullet and Sujith Koonan (eds), *Research Handbook on Law, Environment and the Global South* (Routledge 2019); R K Mall and others, 'Water Resources and Climate Change: An Indian Perspective' (2006) 90 *Current Science* 17.

C. ADOPTING THE WATER JUSTICE APPROACH IN WATER GOVERNANCE TO ASSURE JUST SUSTAINABILITY

Reconceptualising water governance through the sustainability model can assure water justice by addressing everyday water injustices among water users and various water uses. The existing regulatory framework in the water sector, including the groundwater legal framework, must be revamped and reconceptualised. This paper proposes adopting a water justice framework based on three pillars in water governance to implement a just sustainability model/approach in the water sector.

The water justice framework proposed here is based on three pillars: distributive justice, social justice, and ecological justice. This is similar to environmental justice, which is based on distributive, corrective, and procedural justice, as proposed by Scholsberg.¹⁰⁷ The water sector is dominated by issues of access and allocations among water users and users, raising concerns of distributive and social injustices.

A system based on distributive justice that brings fairness in benefit and burden sharing¹⁰⁸ It is essential in water governance in India to fill the gaps of inequity and concerns of inclusiveness in water coverage. Despite all efforts for universal water supply coverage through various water supply schemes, statistics show inequity among areas covered by formal water supply. According to NSSO data, in rural areas, only 51.4% of rural households and 72% of urban households have access to improved drinking water sources available throughout the year on the premises.¹⁰⁹

Distributive justice aims to achieve an equilibrium in society's socio-economic structure by integrating its members' conflicting interests and claims.¹¹⁰ Currently, the water supply schemes focus on water scarcity or water-necessity areas, which sometimes sideline the needs and aspirations of informal settlements, peri-urban spaces, and distant habitats.

Distributive justice holds value only if recognition of harm suffered by communities and water users is unleashed, demanding a more elaborate expansion of attempts to recognise various cultural, social, symbolic, and institutional conditions linked to and contributing to these injustices. As pointed out

¹⁰⁷ David Schlosberg, 'Theorising Environmental Justice: The Expanding Sphere of a Discourse' (2013) 22 *Environmental Politics* 37.

¹⁰⁸ David Miller, *Principles of Social Justice* (HUP 1999) 2.

¹⁰⁹ Ministry of Statistics and Programme Implementation, *NSS Report No. 584: Drinking Water, Sanitation, Hygiene and Housing Condition in India, NSS 76th Round (July-December 2018)* (Government of India 2019).

¹¹⁰ Sudesh Kumar Sharma, *Distributive Justice under Indian Constitution: With Reference to Right to Equality and Property* (Deep and Deep Publications 1989) 45.

and discussed in previous subsections, discrimination based on caste, religion, and gender in water access is rampant in many ways; adopting water governance informed by social justice dimensions is necessary to ensure equity and inclusiveness. Distributive justice, therefore, should also be combined with social justice elements in India. Water governance patterns to ensure just sustainability should address this distributive inequity in water coverage and social injustices water users face due to historical discrimination.

Right-to-water discourse with the rights-duties paradigm developed by judicial decisions reiterates the need for equitable and inclusive water access, allocations, and governance in the light of constitutional provisions. Nevertheless, this rights-based approach is absent in the existing water policies and schemes, which reflect a welfare-based approach and, in some cases, the influence of neo-liberalist market-driven influences. In such a context, with diversity in executive-judiciary determination on the nature of water governance, leading to instances of everyday examples of inequitable and non-inclusive water access and allocations.

A water justice approach in water governance based on distributive and social justice can help realise the constitutional objectives of equity and fairness in access to resources. The constitution envisages through Art 39(b) that the State shall “*direct its policy towards securing that the ownership and control of the material resources of the community are so distributed as best to subserve the common good.*”¹¹¹

Emphasising social and distributive justice in water governance can balance the water needs of human society. Nevertheless, to move towards a just sustainability model in the water sector, it is inevitable to focus on the ecological justice element along with these pillars. Overemphasis on water access and allocations among water users has resulted in the overexploitation of water resources, resulting in both quality and quantity depletion. Supply sustainability to cover more water users and uses has sidelined the source sustainability.

The rights of non-human species and resources, including water resources, are equally significant. The twin principles proposed by Low and Gleeson support this argument. They argue that every natural entity is entitled to enjoy the fullness of its form of life and that all these life forms are mutually dependent and dependent on non-life forms.¹¹² The principles of the right to life and dependency highlighted here argue for incorporating the rights of non-human species and resources in the governance framework.

The ecological justice incorporated in water governance balances the needs of human beings and water bodies/resources and points to the responsibilities

¹¹¹ Constitution of India, art 39(b).

¹¹² Nicholas Low and Brendan Gleeson, *Justice, Society, and Nature: An Exploration of Political Ecology* (Routledge 1998) 157.

of human beings towards resource protection. The anthropocentric bias in current water governance and water supply models could be rectified with this ecological justice element and lead the way to a 'just sustainability model' in water governance where equity among water users and justice towards water resources could be realised. This bias is equally reflected in pollution control laws, following a command-and-control approach. This paper argues that existing water laws and policies based on 'human needs' should give space to a balanced, harmonised approach where human rights are synchronised with their responsibility of conserving and protecting water resources.

V. CONCLUSION

The concerns, questions, and issues of equity and inclusiveness pervade India's water access, allocation, management, and governance. The influence of social, cultural, economic, and political factors and choices determines inclusiveness in water access and allocations, leading to everyday water injustices among various water users and different water uses. This inequitable water sector mechanism continues despite the existing law and policy framework. The current regulatory framework, based on 'equality' rather than 'equity,' often sidelines the issues of social injustices and distributive inequity faced by socially and economically downtrodden sections and areas. While focusing on ensuring sustainable water supply, it also sidelines the concerns of source depletion/source sustainability of water resources. This twin aspect — social and distributive concerns and the source of sustainability concerns — points to the need to adopt a just sustainability model in water governance based on a water justice framework. This paper argues that adopting a just sustainability-based water governance can balance human water needs and resource sustainability by foregrounding the issues of equity, justice, and fairness among water users and our human responsibility to water resource protection.