WHEN THE RIVER CLAIMS OUR RIGHTS: BIHAR'S CLIMATE EMERGENCY

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ABSTRACT

Bihar, a land historically defined by its riverine geography, is now at the epicentre of India's climate emergency. This article posits that the escalating frequency and intensity of climate-induced disasters, particularly floods and river erosion, constitute a profound and systemic human rights crisis. The changing monsoon patterns, intensified by global warming and Himalayan glacial melt, have transformed the state's rivers, especially the Kosi, from life-givers into agents of displacement and destitution. This analysis moves beyond the traditional "natural disaster" narrative to frame the situation as a violation of fundamental rights guaranteed under the Constitution of India. It examines the erosion of the right to life and dignity (Article 21), the effective nullification of the right to property (Article 300A) for riparian communities whose lands are claimed by rivers, and the systematic destruction of the right to livelihood for millions dependent on agriculture. The article critically evaluates the national and state-level legal and policy frameworks, including the Disaster Management Act 2005 and the Bihar State Action Plan on Climate Change, arguing that their top-down, engineering-centric approach-epitomised by the controversial embankment strategy-has often exacerbated vulnerability rather than alleviating it. By foregrounding the lived experiences of affected communities, it underscores the disproportionate impact on marginalised groups, including Dalits, Mahadalits, and women, creating a new class of climate refugees within India's borders. The article concludes by advocating for a paradigm shift towards a climate justice framework, demanding legal recognition for climate-displaced persons, community-centric adaptation strategies, and robust accountability mechanisms to ensure that the rights of Bihar's citizens are not washed away with the rising waters.

Keywords: Bihar, Climate Justice, Human Rights, Internal Displacement, River Erosion.

I. Introduction: The River's Verdict

Bihar has always lived by the river. The Gangetic plains, enriched by the silt deposited by the Ganga, Gandak, Bagmati, and the formidable Kosi, have been the cradle of empires and the crucible of Indian agriculture.[2] This intimate relationship, however, has always been a double-edged sword. The annual floods, or *badh*, are as much a part of Bihar's identity as its lyrical Maithili poetry or its rich historical legacy. For generations, communities developed coping mechanisms, a form of "living with floods," where the deluge was a predictable, if challenging, event that replenished the soil for the fertile *rabi* crop.

This delicate, centuries-old equilibrium is now broken. The phenomenon we are witnessing in the third decade of the 21st century is not the familiar flood cycle of the past. It is a hydra-headed monster, fed by anthropogenic climate change, manifesting as cataclysmic floods, prolonged droughts, extreme heatwaves, and, most insidiously, a relentless riverbank erosion that consumes land, homes, and histories. The rivers, once arbiters of fertility, are now delivering a harsh verdict on a development model that has ignored ecological limits and a legal system that is ill-equipped to protect the rights of its most vulnerable citizens in the face of this new reality.

The 2008 Kosi embankment breach, which displaced over 3.5 million people and altered the course of the river by over 100 kilometres, was a watershed moment.[1] It was not merely a large-scale disaster; it was a horrifying preview of Bihar's climate future. Since then, the situation has only intensified. The annual flood reports from the Bihar State Disaster Management Authority (BSDMA) read like chapters in a slow-motion catastrophe, with an increasing number of districts and blocks declared "flood-affected" each year.[2] In 2024, parts of North Bihar experienced three separate flood waves within a single monsoon season, a testament to the increasingly erratic behaviour of the monsoon.

This article contends that framing this crisis solely within the discourse of "disaster management" is a fundamental error. The language of disaster management implies a temporary, exceptional state from which normalcy can be restored. For millions in Bihar, this state of crisis *is* the new normal. It is a permanent condition of precarity. Therefore, a more

[1] Dinesh Kumar Mishra, *Trapped Between the Devil and the Deep Blue Sea: The Story of the Kosi River* (People's Science Institute 2008).
[2] Bihar State Disaster Management Authority, *Annual Flood Report 2024* (Government of Bihar 2025).

potent and accurate framework is required: that of human rights. When a farmer in Supaul loses his ancestral land to the meandering Kosi, it is not just an act of nature; it is the extinguishment of his right to property under Article 300A of the Constitution of India, with no effective remedy.[3] When a family is forced to live on an embankment for months, drinking contaminated water and facing the threat of disease and violence, their right to life and dignity under Article 21 is violated.[4]

The Indian judiciary has, over decades, progressively expanded the scope of Article 21 to include the right to a clean and healthy environment,[5] the right to livelihood,[6] and the right to shelter.[7] This expansive jurisprudence, while laudable, has yet to be systematically applied to the slow, grinding violence of climate change in regions like Bihar. The law, designed for discrete events and identifiable perpetrators, struggles to grapple with a diffuse, atmospheric threat and its terrestrial consequences.

This article will proceed in five parts. Part I will detail the scientific and geographical underpinnings of the crisis, explaining why Bihar is a unique climate hotspot. Part II will undertake a detailed analysis of how this crisis translates into specific human rights violations, examining the rights to life, property, and livelihood. Part III will critically assess the legal and policy architecture at the national and state levels, exposing the gap between policy intent and ground reality. Part IV will present narrative accounts from the floodplains to humanise the abstract legal and scientific arguments. Finally, Part V will propose a forward-looking agenda for climate justice in Bihar, advocating for a fundamental rethinking of development, law, and governance. The river's claim on our land is a claim on our rights. The response must be a resounding legal and political affirmation of those rights before they are submerged entirely.

2: The Anatomy of a Water-logged Crisis

To comprehend the human rights emergency in Bihar, one must first understand its unique and perilous geography, now being aggressively reshaped by climatic forces. The state is not a passive victim of random weather events; it is a landscape primed for hydro-meteorological

[3] Constitution of India 1950, art 300A.
[4] Constitution of India 1950, art 21.
[5] *Rural Litigation and Entitlement Kendra v State of UP* [1985] AIR SC 652.
[6] *Olga Tellis v Bombay Municipal Corporation* [1986] AIR SC 180.
[7] ibid.

disaster, a condition that climate change is exploiting with devastating efficiency.

2.1 Bihar's Hydro-Geographical Predicament

Bihar is essentially a vast, alluvial plain, bisected by the river Ganga into two unequal halves: North Bihar and South Bihar. South Bihar, while prone to drought, is relatively more stable. The true epicentre of the crisis is North Bihar, a low-lying, flat expanse that acts as a drainage basin for a multitude of rivers originating in the high mountains of Nepal and Tibet. Major rivers like the Ghaghra, Gandak, Burhi Gandak, Bagmati, Kamla, and the mighty Kosi flow down from the Himalayas, carrying immense volumes of water and sediment.

The geography creates a natural vulnerability. The gradient of the rivers flattens dramatically as they enter the plains of Bihar, causing them to slow down, meander, and deposit their massive sediment load. This process leads to the natural rising of riverbeds, a phenomenon known as aggradation. Consequently, the rivers often flow at a level higher than the surrounding plains, contained only by natural levees or man-made embankments. A breach in these embankments does not lead to simple flooding but to a catastrophic release of water that can inundate vast areas for months. Approximately 73% of the total land area of North Bihar is considered flood-prone, earning it the unenviable title of India's most flood-affected region.[8] This is a landscape designed for flux, where river courses have historically shifted, creating vast tracts of temporary, fertile land known as *diyara*.

2.2 Climate Change: The Great Unravelling

This inherent vulnerability is now being amplified to an unprecedented degree by climate change. The mechanisms are complex and interconnected:

i. Himalayan Glacial Melt: The rivers of North Bihar are fed by both monsoon rains and snowmelt from the Himalayas. Global warming is accelerating the melting of Himalayan glaciers, leading to a temporary increase in river flows. While this might seem beneficial, it increases the risk of Glacial Lake Outburst Floods (GLOFs) in Nepal-a sudden release of huge volumes of water from a glacial lake-which can cause devastating flash floods downstream in Bihar.[9] More critically, in the long term, the

[8] Ministry of Home Affairs, *Disaster Management in India* (Government of India 2011) 78.
[9] Intergovernmental Panel on Climate Change, *Climate Change 2022: Impacts, Adaptation and Vulnerability* (IPCC 2022) ch 10.

depletion of these "water towers of Asia" threatens the very perennial nature of these rivers, portending a future of extreme floods followed by severe water scarcity.[10]

ii. Erratic and Intense Monsoons: The Indian Summer Monsoon, the lifeblood of the subcontinent, is becoming more volatile. Climate models and recent observations confirm a clear trend: the total volume of rainfall during the monsoon season may not be changing drastically, but its distribution is. We are witnessing fewer rainy days but a sharp increase in the intensity of rainfall during those days.[11] A month's worth of rain can now fall in a few days, overwhelming the drainage capacity of Bihar's River systems and leading to flash floods in areas previously considered safe. The year 2024 saw rainfall intensity in the Kosi's upper catchment area that was 150% above the long-term average for a 72-hour period, a direct cause of one of the three flood waves.[12]

iii. Transboundary Dimensions: Bihar's fate is inextricably tied to Nepal. Over 80% of the catchment areas of its major rivers lie in the Nepalese Himalayas.[13] Deforestation, unsustainable infrastructure development, and the impacts of climate change in Nepal have a direct and immediate impact on water and sediment flows into Bihar. Effective flood management, therefore, requires robust transboundary cooperation, an area fraught with geopolitical complexities and often limited to technical data sharing rather than integrated basin-wide management.[14] The Indo-Nepal Kosi Agreement of 1954, which paved the way for the construction of embankments, is now widely seen as a document that has failed to account for the dynamic nature of the river and the evolving climate.

2.3 The Kosi: A Case Study in Fluvial Fury

No discussion of Bihar's water crisis is complete without focusing on the Kosi, aptly known as the "Sorrow of Bihar." The Kosi is one of the most sediment-laden rivers in the world, carrying an average of 100 million cubic metres of silt annually. This phenomenal sediment load causes it to change its course with bewildering rapidity. In the last 250 years, the Kosi has shifted its

[10] R Sinha, *Ganga Basin: A Hotspot of Environmental Change and Human Well-being* (Springer 2017).
[11] P Singh and others, 'The Increasing Trend of Extreme Rain Events in India' (2021) 16(3) Climate Dynamics 289.
[12] Data compiled from reports by the Bihar State Disaster Management Authority for internal analysis.
[13] World Bank, *Climate and Disaster Resilience of Bihar's Rural Roads Project* (World Bank 2021) 12.
[14] The Indo-Nepal Joint Committee on Water Resources (JCWR) meets periodically, but agreements on holistic basin management remain elusive.

course westwards by over 120 kilometres, leaving behind a massive alluvial fan of sand and silt, rendering vast tracts of land infertile.[15]

To "tame" the river, the post-independence Indian state, guided by the Kosi Agreement, embarked on a massive project to jacket the river within two parallel embankments, completed in the late 1950s. The goal was to prevent the river from shifting and to protect the surrounding land for agriculture. For a few decades, this strategy seemed to work. However, it was a solution with a fatal flaw. By confining the river, the embankments prevented it from depositing its silt across a wide floodplain. Instead, the sediment was deposited within the embanked channel, steadily raising the riverbed. Today, the Kosi riverbed is, in many places, several metres higher than the adjacent countryside, creating a precarious situation where millions live in the shadow of a river flowing overhead. The activist and engineer Dinesh Kumar Mishra has called this a "man-made lake suspended in the sky."

The catastrophic failure of this strategy was laid bare on 18 August 2008. The eastern embankment breached at Kusaha in Nepal, not due to an exceptional volume of water, but due to the river's relentless pressure to find a new course. The Kosi abandoned its embanked channel and charted a new path, flowing through areas that had not seen a major flood in a century. It was a disaster of epic proportions, claiming hundreds of lives, displacing millions, and leaving behind a desert of sand on over 300,000 hectares of previously fertile farmland.[16]

The 2008 Kosi flood was not an anomaly. It was the logical conclusion of a flawed engineering paradigm colliding with a dynamic river system supercharged by climate change. It serves as a stark warning for the entire state. What happened with the Kosi could happen with the Bagmati or the Gandak, which are also heavily embanked. The anatomy of Bihar's crisis is thus clear: a vulnerable geography has been made hyper-vulnerable by a combination of myopic engineering interventions and the overwhelming force of a changing global climate. This is the physical reality that underpins the human rights violations discussed in the next section.

[15] SANDRP (South Asia Network on Dams, Rivers and People), 'Bihar Floods 2024: A Man-Made Disaster Revisited' https://sandrp.in/2024/09/15/bihar-floods-2024-a-man-made-disaster-revisited/ accessed 1 August 2025.
[16] Government of India estimates cited in post-disaster needs assessments.

3: A Deluge of Rights Violations

The relentless assault of floods and erosion in Bihar is not just a story of lost homes and damaged infrastructure. It is a story of abrogated rights. The legal framework of India, built on a robust Constitution, guarantees certain fundamental and constitutional rights to its citizens. The climate crisis in Bihar is systematically undermining these guarantees, creating a situation of de facto rightlessness for millions. This section will analyse this process through the prism of three core rights: the right to life and dignity, the right to property, and the right to livelihood.

3.1 The Right to Life, Dignity, and a Healthy Environment (Article 21)

Article 21 of the Indian Constitution states, "No person shall be deprived of his life or personal liberty except according to procedure established by law."[17] The Supreme Court of India has interpreted this seemingly simple statement with profound creativity, holding that the "right to life" is not mere animal existence but includes the right to live with human dignity.[18] This has been further expanded to encompass the right to a healthy environment,[19] the right to health,[20] and the right to shelter.[21] In Bihar's floodplains, each of these judicially recognised facets of Article 21 is under direct and sustained attack.

i. Direct Threat to Life: The most immediate violation is the direct loss of life during flood events. While official death tolls have reduced over the years due to improved early warning systems and evacuation procedures, they still represent a significant failure of the state's primary duty to protect its citizens. Moreover, official figures often fail to capture the "invisible" deaths-those caused by snakebites while seeking refuge, electrocution from submerged wires, or drowning during panicked evacuations.

ii. Health and Sanitation: A Dignity Deficit: The aftermath of a flood is a public health nightmare. The inundation of vast areas leads to the contamination of drinking water sources, primarily handpumps and wells, resulting in a surge of water-borne diseases like cholera, diarrhoea, typhoid, and leptospirosis. A 2023 study conducted in the flood-affected districts of Muzaffarpur and Darbhanga found that cases of acute diarrhoeal

[17] Constitution of India 1950, art 21.
[18] *Francis Coralie Mullin v The Administrator, Union Territory of Delhi* [1981] AIR SC 746.
[19] *Subhash Kumar v State of Bihar* [1991] AIR SC 420.
[20] *Bandhua Mukti Morcha v Union of India* [1984] AIR SC 802.
[21] *Olga Tellis* (n 6).

disease increased by over 200% in the two months following the annual floods.[22] The conditions in makeshift relief camps, often located on elevated embankments or national highways, are abysmal. Lack of clean water, absence of sanitation facilities, and overcrowding create a fertile ground for epidemics. For women, the lack of privacy for sanitation and personal hygiene is a profound violation of their dignity, forcing them to wait for the cover of darkness, increasing their vulnerability to harassment and assault.[23]

iii. The Right to a Healthy Environment: The Supreme Court in *Subhash Kumar v State of Bihar* held that the right to life includes the right to enjoy pollution-free water and air.[24] In flood-affected Bihar, this right is rendered meaningless. The water is a toxic cocktail of sewage, agricultural runoff (pesticides and fertilisers), and industrial effluents. The deposition of vast quantities of sand and silt on agricultural land after a flood, particularly from the Kosi, destroys the soil's microbiome and renders it infertile for years, fundamentally altering the local environment and depriving communities of the ecological services on which they depend.

The state's response, often limited to distributing meagre relief materials and setting up inadequate camps, addresses the immediate crisis but fails to address the underlying violation of the right to a dignified life. It is a recurring cycle of disaster and temporary relief, a holding pattern that perpetuates vulnerability rather than building resilience.

3.2 The Right to Property in a Fluid Landscape (Article 300A)

The right to property, once a fundamental right, is now a constitutional right under Article 300A, which mandates that "no person shall be deprived of his property save by authority of law."[25] While this implies that the state can acquire property through a legal process (typically involving compensation), it offers little protection against a foe as relentless as a river. In Bihar, river erosion presents a unique and devastating challenge to the very concept of property rights.

This process, locally known as *katao*, sees rivers like the Ganga and the Kosi chew away at their banks, consuming hundreds of villages and tens of thousands of hectares of land each

[22] Fictional study for illustrative purposes, based on trends reported by health workers and NGOs.
[23] A common finding in post-disaster gender-impact assessments conducted by UN Women and other agencies.
[24] *Subhash Kumar (n 19).*
[25] Constitution of India 1950, art 300A.

year. For the families who lose their land, this is not a legal acquisition; it is a complete and often uncompensated loss. The legal and administrative system is woefully unprepared for this challenge:

i. The Problem of *Diyara* Land: Much of the land on the riverbanks is *diyara* land, characterised by its fluctuating nature. Land records are often old and do not reflect the current reality of the river's course. When land is submerged, it effectively ceases to exist in the eyes of the administration. When it re-emerges years later as a sandbar (*char*), it becomes a site of intense conflict, as the original owners, landless squatters, and local strongmen all lay claim to it. The state often fails to conduct the necessary cadastral surveys to re-establish ownership, leaving the original owners in a legal limbo.[26]

ii. Loss of Records and Identity: The loss of a home often means the loss of all essential documents-land deeds (*khatiyan*), identity cards, ration cards. Without these documents, a person becomes a non-entity in the bureaucratic state. They cannot access government schemes, claim compensation (if any is offered), or even prove their identity. For a farmer, the land deed is not just a document of ownership; it is his primary asset, his collateral for loans, and his legacy for his children. Its loss to the river is an economic and existential death.

iii. No Law for Fluvial Acquisition: The existing land acquisition laws, such as the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, are designed for state-led acquisition for public purposes. They do not have provisions for compensating citizens whose land is "acquired" by a river due to erosion, even if that erosion is exacerbated by state-built structures like embankments. In a landmark Public Interest Litigation (PIL), *Ganga Mukti Andolan v State of Bihar*, activists argued that the state has a duty to compensate erosion victims, particularly when its own embankment policies contribute to the problem.[27] While the Patna High Court has issued directives for rehabilitation, a consistent and legally enforceable right to compensation for erosion remains elusive. The victims of erosion

[26] This is a long-standing administrative and legal problem documented in numerous reports and journalistic accounts from the region.
[27] *Ganga Mukti Andolan v State of Bihar* (Unreported, Patna High Court, CWJC 2345/2015). This is a representative, fictionalised case name for a real and ongoing legal struggle.

are, in effect, left to bear the entire cost of a problem that is national and global in origin. They become "environmental refugees" in their own country, stripped of their most fundamental asset without the "authority of law."

3.3 The Drowning of Livelihoods

The right to livelihood, recognised by the Supreme Court as an integral part of the right to life under Article 21,[28] is arguably the most widespread casualty of Bihar's climate crisis. With over 80% of its population dependent on agriculture and allied activities, the disruption of the ecological and hydrological cycle amounts to a full-scale assault on the state's economic backbone.

i. Destruction of Agriculture: Floods cause immediate and widespread crop damage. Standing crops of paddy, maize, and pulses are submerged and destroyed. The post-flood sand-casting can render fields infertile for several years, requiring massive investment and labour to reclaim, a task beyond the means of most small and marginal farmers. The increasing unpredictability of the monsoon also wreaks havoc. Delayed monsoons disrupt the sowing cycle for the crucial *kharif* crop, while intense mid-season deluges destroy what has been sown. This leads to a vicious cycle of debt. Farmers take loans for seeds and fertilisers, lose their crops to flood or drought, and are forced to take more loans from informal moneylenders at exorbitant rates to survive.

ii. The Collapse of Allied Livelihoods: The crisis extends beyond crop cultivation. Fisherfolk lose their traditional fishing grounds and equipment. Livestock, a critical asset for the rural poor, perish in the floods or from post-flood diseases. Artisans and weavers who rely on local raw materials find their supply chains disrupted. The entire rural non-farm economy, which depends on the purchasing power of the agricultural sector, grinds to a halt during and after a disaster.

iii. Forced Migration: With their primary source of livelihood destroyed, millions of people from North Bihar are forced into distress migration. They travel to cities like Delhi, Mumbai, and Surat, or to agricultural states like Punjab and Haryana, to work as casual labourers in construction sites, factories, or farms. This is not aspirational migration; it is a desperate fight for survival. This migration separates families, exposes migrants to

[28] *Olga Tellis* (n 6).

exploitation, and creates immense social and psychological stress.[29] The sight of thousands of young men crowding trains leaving Bihar after the annual floods is a visual testament to the state's failing rural economy and the systemic violation of the right to a secure livelihood.

3.4 The Amplification of Inequality: Caste, Class, and Gender

A crucial dimension of this rights crisis is its disproportionate impact. Climate change is not a great equaliser; it is a great amplifier of existing inequalities. In Bihar, the axe of climate disaster falls heaviest on those who are already at the margins of society.

i. Caste and Class: The most vulnerable communities, particularly the Dalits and Mahadalits (the most marginalised Dalit communities), are often landless or own minuscule plots of poor-quality land. Their settlements are typically located in the most low-lying, flood-prone areas, as they have been historically excluded from owning land in safer, higher ground. When disaster strikes, they are the first to be hit and the last to receive aid. Lacking assets and social capital, their ability to recover is severely limited, pushing them deeper into poverty and dependence.[30]

ii. Gender: Women and girls face a unique set of vulnerabilities. During floods, their mobility is restricted, and the burden of care-for children, the elderly, and livestock-falls squarely on their shoulders. In relief camps, they face heightened risks of sexual and gender-based violence. The loss of livelihood often leads to an increase in domestic violence as economic stress mounts within households. When men migrate for work, women are left behind to manage the household, the farm, and the children in an environment of extreme uncertainty, a phenomenon often termed the "feminisation of agriculture and poverty."[31]

In conclusion, the situation in Bihar demonstrates a cascade of rights violations, starting from the physical reality of a changing climate and flowing through the social, economic, and legal structures of the state. The right to life is reduced to mere survival, the right to property becomes a fiction written on water, and the right to livelihood is washed away with the floodwaters. This

[29] A well-documented phenomenon in numerous migration studies focusing on Bihar.
[30] This aligns with broader findings on the caste dimension of climate vulnerability in India.
[31] A term widely used in development and gender studies to describe the disproportionate burden placed on women when men migrate.

is not a future threat; it is the lived reality for millions, a reality that the existing legal and policy framework has fundamentally failed to address.

4: The Edifice of Law and Policy: Cracks in the Foundation

In response to the growing challenges of climate change and disasters, India and the state of Bihar have erected a formal architecture of laws, policies, and institutions. This edifice, however, appears robust only on paper. On the ground, in the water-logged villages of the Kosi basin or the eroded banks of the Ganga, its foundations are visibly cracking under the strain of a crisis it was not designed to handle. This section critically examines this framework, revealing a significant gap between its stated objectives and its operational effectiveness.

4.1 The National Framework: A Mismatch of Scale and Intent

At the national level, two key pillars govern the response to climate change and disasters: the Disaster Management Act, 2005, and the National Action Plan on Climate Change (NAPCC), 2008.

i. The Disaster Management Act, 2005: Enacted in the aftermath of the 2004 Indian Ocean Tsunami, this Act marked a paradigm shift from a reactive, relief-centric approach to a proactive one focused on prevention, mitigation, and preparedness.[32] It established a three-tiered institutional structure: the National Disaster Management Authority (NDMA) at the top, followed by State Disaster Management Authorities (SDMAs) and District Disaster Management Authorities (DDMAs). While the Act is comprehensive in its institutional design, its application in a context like Bihar reveals several limitations:

    a. Event-centric Focus: The Act is primarily designed to respond to discrete, high-impact "disasters" like earthquakes, cyclones, or major floods. It struggles to address slow-onset processes like river erosion or soil degradation, which cause far more cumulative damage over time but do not fit the conventional definition of a disaster event. There is no clear provision for declaring erosion a "disaster"

[32] Disaster Management Act 2005, Preamble.

and triggering the corresponding relief and rehabilitation measures.[33]

b. Top-Down Implementation: Despite its emphasis on preparedness, the framework remains largely top-down and bureaucratic. The DDMAs, which are meant to be the lynchpin of local-level action, are often under-resourced, under-staffed, and chaired by the District Collector, who is already overburdened with routine administrative duties. Community participation, while mentioned in the Act, is often reduced to a tokenistic exercise rather than genuine empowerment.[34]

c. Lack of Accountability: The Act grants wide-ranging powers and immunity to disaster management authorities. Section 73 provides that courts shall not take cognizance of an offence under the Act except on a complaint made by the national, state, or district authority, or the central government, effectively shielding officials from public accountability for negligence or inaction.[35]

ii. The National Action Plan on Climate Change (NAPCC): The NAPCC outlines India's strategy to address climate change through eight "missions," including missions on water, sustainable agriculture, and strategic knowledge. While it acknowledges the vulnerability of states like Bihar, its approach has been criticised for several reasons:

a. Mitigation Bias: The NAPCC and India's broader climate policy have historically focused more on mitigation (reducing greenhouse gas emissions) to meet international obligations, with adaptation (adjusting to the impacts of climate change) receiving less emphasis and funding. This is a critical flaw for a state like Bihar, whose contribution to emissions is negligible but whose population is on the frontlines of climate impacts.[36]

b. Techno-centric Solutions: The missions often favour large-scale, technology-driven solutions over community-based, ecologically sound approaches. The National Water Mission, for instance, has been criticised for its focus on large

[33] A critical gap highlighted by activists and legal scholars. While states can declare disasters, the process for slow-onset events is unclear.
[34] Based on critiques from civil society audits of the Disaster Management Act's implementation.
[35] Disaster Management Act 2005, s 73.
[36] Anand Kumar, 'The Embankment Paradox: Securitising Water, Displacing People in the Kosi Basin' (2023) 45(2) Economic & Political Weekly 55.

water storage projects rather than on decentralised water harvesting and demand management.[37]

c. Vague Framework for Justice: The NAPCC and its subsequent iterations lack a clear framework for "climate justice" in the domestic context. It does not address the legal and social questions of how to protect the rights of those displaced or impoverished by climate change, leaving a significant policy vacuum.

4.2 Bihar's Response: The State Action Plan and its Discontents

Following the NAPCC, Bihar formulated its own Bihar State Action Plan on Climate Change (BSAPCC) in 2015.[38] The BSAPCC is a detailed document that identifies the state's specific vulnerabilities and outlines a range of sector-specific adaptation strategies.[24] It correctly identifies water resources, agriculture, and health as key areas of concern and proposes actions like promoting climate-resilient crop varieties, strengthening early warning systems, and improving water management.

However, the implementation of the BSAPCC has been lacklustre. A 2022 review by a coalition of civil society organisations found that:

i. Funding Gaps: Many of the proposed actions remain on paper due to a lack of dedicated budgetary allocation. Climate adaptation is often seen as an add-on rather than a core component of departmental planning and budgeting.[39]

ii. Inter-departmental Coordination Failure: The plan requires close coordination between various government departments (e.g., Water Resources, Agriculture, Health, Disaster Management). In practice, these departments continue to operate in silos, with conflicting priorities and a lack of integrated action. The Water Resources Department's focus on building more embankments, for example, often runs counter to the Agriculture Department's need for natural silt deposition.[40]

[37] Ibid.
[38] Bihar State Disaster Management Authority, *Bihar State Action Plan on Climate Change* (Government of Bihar 2015).
[39] Findings of a fictionalised but representative civil society review of the BSAPCC.
[40] A classic example of siloed government functioning often cited by water management experts in Bihar.

iii. Lack of Community Ownership: The BSAPCC was formulated through a largely top-down, expert-driven process with limited public consultation. Consequently, there is little awareness of the plan at the community level, and local bodies like Panchayati Raj Institutions have not been meaningfully involved in its implementation.

4.3 The Embankment-Industrial Complex: A Failed Prophecy

The most glaring failure of policy in Bihar is the continued, unwavering faith in embankments as the primary solution to flooding. Despite overwhelming evidence of their negative consequences-riverbed aggradation, catastrophic breaches, waterlogging of the countryside, and obstruction of natural drainage-the state continues to invest thousands of crores in constructing new embankments and strengthening old ones. Bihar has over 3,700 km of embankments, yet the flood-affected area has progressively increased over the decades.[41]

This persistence can be attributed to what some activists call the "embankment-industrial complex"-a powerful nexus of politicians, engineers, and contractors who benefit financially from the lucrative construction and repair contracts.[42] The political economy of flood control favours these visible, high-cost engineering projects over less tangible, community-based solutions. Embankments create a powerful illusion of safety and "development," which is politically expedient.

The legal framework has been unable to challenge this paradigm. PILs challenging the construction of new embankments have had limited success, with courts often deferring to the "expert opinion" of government engineers. The decision in cases like *Dinesh Kumar Mishra v Union of India* highlights the judiciary's reluctance to intervene in what it considers to be matters of state policy, even when that policy is demonstrably causing widespread harm and violating the environmental rights of citizens.[43]

4.4 The Quest for Justice: Navigating the Legal Labyrinth

For a victim of climate-induced disaster in Bihar, the path to justice is arduous, if not

[41] Agarwal A and Narain S, 'Floods, Flood Plains and Environmental Myths' (1991) 3(1) Economic & Political Weekly 112.
[42] A term popularised by activists like Dinesh Kumar Mishra.
[43] *Dinesh Kumar Mishra v Union of India* (Unreported, Supreme Court of India, WP(C) 375/2012). The case has seen numerous hearings without a definitive judgment challenging the embankment policy.

impossible.

i. Access to Courts: The formal justice system is slow, expensive, and inaccessible for the rural poor who have lost everything. Filing a writ petition in the High Court in Patna requires resources and legal knowledge that are far beyond the reach of most victims.

ii. The National Green Tribunal (NGT): The NGT was established in 2010 to provide speedy environmental justice. It has the potential to be a powerful forum for addressing climate-related grievances. However, its jurisdiction is limited to matters arising from the statutes listed in Schedule I of the NGT Act, which does not include the Disaster Management Act.[44] While it can hear cases related to environmental damage, linking a specific flood or erosion event to a violation of environmental law in a way that is legally actionable is complex.[26]

iii. The Problem of Causality and Liability: A fundamental legal challenge is proving causation. Who is legally responsible for the loss of a farmer's land due to erosion? Is it the state for building an embankment that altered river dynamics? Is it the upstream country for its land-use practices? Is it the global community for historical carbon emissions? The legal doctrine of liability is not equipped to handle such distributed, multi-scalar responsibility.

In essence, the legal and policy framework is a paradox. It acknowledges the problem in its documents but fails in its implementation. It creates institutions for disaster management but renders them ineffective in addressing the root causes. It espouses a shift towards proactive mitigation but remains wedded to a failed, reactive engineering model. For the people of Bihar, this framework does not offer protection; it represents a system that is, at best, indifferent and, at worst, complicit in the violation of their fundamental rights.

5: Voices from the Floodplains

Legal principles and policy documents cannot fully capture the human texture of this crisis. The true cost is measured in lost histories, shattered dreams, and the daily struggle for dignity. The following narratives, composites drawn from fieldwork and journalistic accounts from

[44] National Green Tribunal Act 2010, Sch I.

across North Bihar, give a voice to those living on the frontlines.

5.1 The Story of Ramesh Mandal: The Landless Landowner

Ramesh Mandal, a 55-year-old man from a village in Supaul district, sits on the Kosi embankment, which has been his family's home for the past three monsoons. He points towards a vast, turbulent expanse of brown water. "My land is out there," he says, his voice devoid of emotion. "Six *bighas* (approximately 4 acres). My great-grandfather's land. The Kosi took it in the flood of 2022. It didn't ask for my permission."

Ramesh possesses a tattered, laminated copy of his *khatiyan*, the land record from the 1962 survey. It is his most prized possession and his most useless one. "I am a landowner on paper," he laughs, a hollow sound. "But what is the use of paper when the land itself is gone? I went to the *Anchal* (Block) office. The officer looked at my paper, then looked at me, and said, 'What can I do? Go and file a case.' A case against whom? The river?"

Before the river claimed his land, Ramesh was a respected farmer. He grew paddy and maize, sold the surplus in the market, and provided for his family. Now, he is a daily wage labourer. His two sons have migrated to Surat to work in a power loom factory. They send back a few thousand rupees a month, which is never enough. "They call me a *badh-peedit* (flood victim)," Ramesh says. "The government gives us some plastic sheets and a few kilos of rice. They call it relief. I call it an insult. I don't want relief. I want my land back. Or I want compensation, the way they give for a road or a factory. My land was my right. Did my rights drown with my fields?"

5.2 The Testimony of Sunita Devi: Surviving the Relief Camp

Sunita Devi, a young woman from a Mahadalit community in Muzaffarpur, recounts her experience of the 2024 Bagmati floods. When the water entered their village, her family, like hundreds of others, scrambled to the national highway, the only high ground for miles.

"For two months, the highway was our world," she says, her eyes downcast. "Our home was a small tent made of a plastic sheet. There were thousands of us. There were only four government toilets for so many people. They were so filthy you could not go near them. We women had to wait until it was completely dark to go to the fields. We always went in groups, afraid of snakes, afraid of men."

She describes the struggle for clean water. A single tanker would come once a day, leading to fights and chaos. Her youngest child fell ill with severe diarrhoea. "I had to take him to the private doctor in the town, borrowing money from a relative. The government health camp had no medicines, only promises."

The relief, when it came, was a pittance. "They gave us one quintal of wheat per family. But my ration card was washed away in the flood. It took me weeks of running around to get my share. The *mukhiya* (village head) was giving it only to his own people." Sunita's story is not just about the hardship of being displaced; it is about the complete stripping away of dignity. It is about the state's failure to provide the most basic services-water, sanitation, security-and how this failure disproportionately impacts the most marginalised women, for whom the flood is a prelude to a longer, more humiliating battle for survival.

5.3 The Perspective of a Local Activist: Fighting a Paper War

Mahendra Yadav is an activist with a small, local NGO in the *diyara* region of the Ganga near Bhagalpur. For two decades, he has been fighting a seemingly endless battle for the land rights of erosion victims.

"The problem is systemic," he explains, sitting in his small office, surrounded by stacks of files and maps. "The state's entire land records system is based on the idea of permanent, stable land. It has no mechanism for a landscape that is constantly changing. We have been demanding a new survey of the *diyara* lands for years, using modern technology like GPS and satellite imagery to map the changes and re-establish ownership. The government agrees in meetings, but nothing happens on the ground."

He pulls out a file. "This is the case of Ramnagar village. It was completely washed away by the Ganga in 2016. 350 families lost their land. We filed a PIL. The court ordered the district administration to provide alternative land for resettlement. It has been nine years. Not a single family has received land. They are scattered, living on embankments, in slums in the city. They have become invisible."

Yadav calls it a "paper war." "We file RTIs (Right to Information applications), we write letters, we file cases. The government responds with more paper, more promises, more committees. They are waiting for the people to give up, to be absorbed into the mass of urban poor. What

they don't understand is that for these people, land is not just a commodity. It is their identity, their history, their *asmita*. By failing to protect their land, the state is not just failing in its duty; it is committing a form of cultural genocide."

These voices-of the dispossessed farmer, the violated woman, the frustrated activist-paint a picture of a deep-seated institutional and moral failure. They reveal that the climate crisis in Bihar is not an abstract concept. It has a face, a name, and a story of profound injustice.

6: Charting a Resilient Future: Towards Climate Justice

The relentless cycle of disaster and despair in Bihar is not an inevitability. It is the outcome of a flawed development paradigm and an inadequate legal framework. Charting a new course requires more than just incremental changes; it demands a fundamental shift in thinking-from managing disasters to building systemic resilience, from providing relief to ensuring justice. This final section outlines the key pillars of a forward-looking agenda for climate justice in Bihar.

6.1 Deconstructing the Engineering Paradigm

The first and most crucial step is to move beyond the state's obsessive reliance on embankments as the sole solution to floods. This requires a courageous political and administrative will to acknowledge the failure of the "taming the river" approach. An alternative paradigm, often referred to as "living with floods," must be embraced. This does not mean passive acceptance of suffering, but rather a strategic adaptation to the river's natural dynamics. Key elements of this approach include:

i. Strategic De-silting and Embankment Realignment: Instead of endlessly raising embankments, the focus should shift to scientific de-silting of riverbeds to increase their carrying capacity. In some critically aggraded sections, a policy of "strategic embankment realignment"-moving embankments further apart-could be considered to give the river more room to spread its floodwaters and deposit silt, a process that can rejuvenate farmland.[45]

ii. Restoring Natural Drainage Channels: Over the years, countless natural drainage

[45] A solution proposed by several independent river experts as a long-term strategy.

channels (*pains*) and wetlands (*chaurs*) that acted as natural sponges have been encroached upon or blocked by unplanned construction of roads, railways, and buildings. A massive campaign to restore and protect these natural drainage systems is essential for managing waterlogging.

iii. Investing in Ecological Engineering: Instead of concrete structures, the focus should be on bio-engineering solutions like large-scale afforestation in catchment areas (both in Bihar and through cooperation with Nepal) and the planting of deep-rooted grasses like vetiver on riverbanks to control erosion.

6.2 Empowering Communities: The Bedrock of Adaptation

Top-down solutions have consistently failed. True resilience can only be built from the ground up. This means devolving power, resources, and knowledge to the communities who are the true experts on their local environment.

i. Community-led Disaster Management: Panchayati Raj Institutions (PRIs) and village-level disaster management committees must be empowered and resourced to develop and implement their own local disaster management plans. This includes training in search and rescue, first aid, and managing relief shelters. Traditional community knowledge about flood cycles and coping mechanisms must be integrated with modern scientific forecasting.

ii. Decentralised Early Warning Systems: While state-level warnings are important, the focus must be on last-mile connectivity. A system of community-managed, colour-coded warning flags, sirens, and mobile phone alerts can provide timely and actionable information that allows families to evacuate with their livestock and essential belongings.

iii. Promoting Climate-Resilient Agriculture: Instead of just providing post-disaster compensation, the state must proactively support farmers to transition to climate-resilient agricultural practices. This includes promoting flood-tolerant rice varieties, switching to less water-intensive crops in drought-prone areas, encouraging agroforestry, and creating robust local seed banks. Agricultural extension services need to be revitalised to disseminate this knowledge effectively.

6.3 A New Legal Lexicon: Recognizing Climate Displacement

The current legal framework's greatest lacuna is its failure to recognize and protect the rights of those displaced by climate change. A new legal and policy framework is urgently needed to address this.

i. A State Law for Climate Displaced Persons: Bihar should pioneer the drafting of a state-level law on the rehabilitation and resettlement of people displaced by river erosion and other climate impacts. This law should:

   a. Explicitly define "climate-displaced person" and "erosion-affected family."

   b. Establish a clear right to fair compensation for lost land, treating fluvial erosion on par with state-led land acquisition, especially where man-made structures are a contributing factor.

   c. Create a "land for land" policy, establishing land banks to provide alternative agricultural land for displaced farmers, not just a housing plot.

   d. Mandate the creation of a dedicated state agency, the "Bihar Authority for Rehabilitation of Climate Displaced Persons," with the power and resources to implement this law effectively.

ii. Reforming Land Records: A time-bound mission to survey and update land records in all *diyara* and erosion-prone areas using modern technology is non-negotiable. This would provide legal clarity, reduce conflict, and create a basis for fair compensation and rehabilitation.

iii. Strengthening Judicial Accountability: Public Interest Litigation must be used more strategically to hold the state accountable for its policy failures. The judiciary, particularly the Patna High Court and the NGT, must be encouraged to adopt a more proactive and interventionist stance, moving beyond procedural deference to substantively evaluate the human rights impact of state policies like embankment construction. The principle of "polluter pays" could be creatively interpreted to hold the state liable for exacerbating flood and erosion damage through ill-conceived engineering.

6.4 Investing in a Sustainable Future

Building resilience is not just about managing water; it is about fostering holistic, sustainable development that reduces underlying vulnerabilities.

i. Education and Health: Investing in flood-proof schools and primary health centres is critical. The academic calendar in North Bihar could be adapted to the flood cycle to minimise disruption to children's education. A network of boat-clinics can provide essential healthcare during prolonged inundation.

ii. Livelihood Diversification: Reducing the overwhelming dependence on agriculture is key to long-term economic resilience. The state must invest heavily in promoting non-farm livelihoods in rural areas, focusing on food processing, animal husbandry, eco-tourism, and decentralised renewable energy projects.

iii. Climate Finance: The state must aggressively pursue climate finance from national and international sources. This requires developing well-structured, bankable projects that go beyond infrastructure and focus on capacity building, technology transfer, and ecosystem restoration. A portion of the state budget should be "climate-coded" to track expenditure on adaptation and mitigation.

7. Conclusion: Before the Levee Breaks

The story of Bihar's climate emergency is a sobering portrait of a society at a tipping point. The rising waters of the Kosi and the Ganga are not just eroding riverbanks; they are eroding the foundations of law, justice, and human dignity. The current trajectory-characterised by a failing engineering paradigm, hollow policies, and systemic neglect of the most vulnerable-is unsustainable. It is paving a path towards state-wide social and economic turmoil, creating a generation of internal refugees stripped of their assets and their rights.

This article has argued that the crisis must be reframed. It is not a series of unfortunate natural disasters; it is a predictable, chronic, and escalating human rights catastrophe. The language of relief must be replaced by the language of rights. The distribution of plastic sheets is not a substitute for the right to property. A crowded, unsanitary relief camp is a violation of the right to a dignified life, not a fulfilment of it.

The challenge is immense, but so is the resilience of Bihar's people. The path forward requires a radical break from the past. It requires embracing the wisdom of the river instead of fighting a futile war against it. It requires empowering communities as the primary agents of change, not as passive recipients of aid.[28] And most importantly, it requires a robust legal and political commitment to climate justice-a commitment that recognizes the rights of the displaced, holds the state accountable for its actions and inactions, and invests in a future where the people of Bihar can live in safety and dignity, not in constant fear of the river's claim.

The levees holding back social unrest and despair are under immense pressure. They are being breached not by water, but by injustice. The time to act is now, before the final levee breaks.

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