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IMPACT OF CLIMATE-INDUCED MIGRATION FROM BANGLADESH ON INDIA'S BORDER ECONOMIES

Diwakar Kumar and Maneesh Dubey
DST- Policy Fellow, National Institute of Science Education and Research- Bhubaneswar, fromdiwakarsahay@gmail.com
Research Advisor, Indian Institute of Teacher Education- Gujarat, Dubeymanish972@gmail.com

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Abstract: Climate change is accelerating a migration from low-lying Bangladesh into Eastern India, adding to complex socioeconomic pressures in border states like West Bengal and Assam. The paper looks at how such migration changes labour markets, puts pressure on water and land resources, and reconfigures formal/informal trading links. Relying on secondary sources, it unearths that immigration inflows drive down wages in agriculture and construction by 12–18% while exacerbating conflicts over groundwater and grazing. Cross-border trade, notably Petrapole-Benapole (which caters to 70% of bilateral trade), endures delays on account of enhanced security and humanitarian checks. In terms of theory, the research utilizes 'constructivist diplomacy' Adler, 1997; and 'Transboundary Water Interaction Nexus (TWIN)' Zeitoun, 2011 to argue that India-Bangladesh relations are being reconstructed through shared climate vulnerabilities. It suggests bilateral adaptation funds and labour mobility corridors, using diplomatic norms around common but differentiated responsibilities to encourage these programmes.

Keywords: Climate Change, Migration, Natural Resource, Geo-economic Stressor, Labour Market

INTRODUCTION

The problem of climate-migration from Bangladesh into Eastern India is not just a humanitarian catastrophe, but increasingly a long-term and intensifying geoeconomic stressor for India's borderstates, which are witnessing a fundamental reordering of their economic bases, resource

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pressures and modes of governance. The extreme vulnerability of Bangladesh in face of climate change is perhaps best reflected through its invariable high standings in international rankings, being ranked 7th in the 2021 Global Climate Risk Index (Eckstein et al., 2021). This vulnerability results from a combination of geographic and demographic factors: a wide, low-lying deltaic land area, high population density (greater than 1,100 people per square kilometer), and high dependence on climate-sensitive sectors such as agriculture and fisheries. The existential threat is signified by estimates that sea-level rise alone could force out some 13.3 million Bangladeshis by mid-century (Chen & Mueller, 2019) — submerging vast areas of the coastal belt, as well as densely populated Khulna and Barisal divisions. Salinity intrusion, caused by increasing sea levels and reduced river flow upstream, is already making vast areas of agricultural land barren, threatening the income and development prospects of millions of farmers (Rabbani et al., 2013). Second, the rise of more frequent and deadly tropical cyclones (e.g., Sidr, Aila, Amphan) result in immense destruction of infrastructure, housing, and crops, thus inducing the recurrent waves of displacement (Akter, 2009).

The porous eastern border of India, shared mostly with West Bengali (2,217 km), and followed by Assam (263 km), serves as the main release valve for this climate-forced displacement. These two states together accommodate some 68 per cent of all the cross-border migrants from Bangladesh, the influx largely propelled by the ecosystem damage and climate-driven calamities in the neighbouring state (Refugee and Migratory Movements Unit, Research on Return refugee, 2022). Migration is never homogeneous (see also deHaas et al 2009). Areas such as the North 24 Parganas, Nadia, Murshidabad and Malda in West Bengal and Dhubri, Goalpara and Karimganj of Assam are crucial reception zones. Many published estimates of how much the population of populations in these border districts have been changing over the past 10 years are disputed due to the inconsistent character of much of this migration, however field studies consistently document the need for larger and larger populations of sojourners in these districts (Sasmal & Roy, 2016; Vij et al., 2021).

However, this surge in migration is not just a humanitarian challenge of shelter and basic services. It marks a major economic inflection point for the receiving regions in Eastern India as it brings in complex pressures that undermines the existing economic equilibria. Assam's agricultural

GDP growth dipping is as obvious a quantitative manifestation of this stress. Based on the Government of India Economic Surveys and state reports, among the states in the north eastern region, the agricultural growth rate in Assam deteriorated from relatively high average of 5.6% during pre-2015 (2010-2014) to a low 1.2% during 2020-2023 (GoI, 2023; Government of Assam, 2023). The causes of agricultural performance are complex, but this precipitous decline is tightly correlated with independent observations of peak cross-border migration into Assam - lending credence to the correlation, if not causation, being fundamentally forced by migrant pressure.

The geoeconomic stress manifests through several interconnected channels

Labor Market Saturation and Wage Suppression: The migrants, with little or no skill, out of desperate need for an immediate earning, find the unorganised sector to be their employment niche, where they compete fiercely for the low-skilled jobs in agriculture, construction, petty trade, and the domestic work. Such a sudden influx of labor, especially in border districts, puts downward pressure on wages. Studies by Bhorat et al. (2024), who worked with National Sample Survey (NSS) data and district wage indices, noted that real daily agricultural wages fell by about 17 percent in high-migration districts like Dhubri (Assam) between 2019 and 2023 at the same time as a reported 22 percent increase in the presence of migrants. West Bengal's border districts exhibit the same pattern. Local low-skilled labour is significantly held down with such wage cuts, which may be at the expense of local poverty and hostility (Sasmal & Roy, 2016).

Intensified Resource Competition: The rapid rise of population burdens local resources, which are already overburdened, including water and land. groundwater exploitation for drinking water and irrigation booms in migrant-invested zones. As an example, in Murshidabad (West Bengal), groundwater extraction in major migration-prone areas increased by around 40% between 2,000 and 2,005, resulting in a situation where 62% of indium tube wells reportedly went dry during the summer months according to Central Ground Water Board (CGWB), 2,023 monitoring data (CGWB,2,023). There is also an increasing competition for grazing land, fuelwood, and common property resources, which often results in localized conflicts between host communities and migrants, and further

adds to the degradation of the fragile ecosystems such as the char lands in the Brahmaputra (Bhattacharyya, 2021).

Pressure on Public Services and Infrastructure: Not only an economic stress, the pressure on local public services – healthcare, sanitation, primary education channels scarce state resources away from productive investment and development projects in to service provision and crisis management. This is opportunity cost in terms of regional economic growth (Vij et al., 2021).

Trade Disruptions and Border Management Costs: The necessity to control irregular migration flows results in increased demand for border security. Enhanced patrolling, fencing, and checkpoints can act as a deterrent for licit cross-border trade. Delays at key land ports such as Petrapole-Benapole, which accounted for ~70% of all bilateral trade also rose from about 8 hours to 14 hours on average for clearing goods between 2020-2023, leading to a 25% estimated decrease in daily truck crossings, and a rise in transaction cost of doing business (FICCI, 2023). The state also spends large amounts of money on border security forces and infrastructure to control migration, which constitutes a direct fiscal cost.

Climate migration out of Bangladesh works as a strong geo economic stressor on Eastern India. It depresses local wages for susceptible populations, escalates competition for limited natural resources, stretches public budgets to breaking point through higher service demand and border protection costs, and adds abrasion to crucial cross-border trade arteries. The noted economic downturn in vital sectors such as agriculture in the state of Assam is a resounding testimony of the monumental, diversified economic pressure that bordering states shoulder by virtue of being closely located to a climate-vulnerable neighbour. This stressor can only be dealt with through an understanding of its profound economic as well as its humanitarian dimension.

RESEARCH OBJECTIVES

This paper systematically explores three interrelated aspects of the impact of climate migration on India's eastern borderlands. First, it estimates labour market frictions in high-migration districts such as Dhubri, Assam, and North 24 Parganas, West Bengal, and examines how the additional supply of labour affects wages within agriculture and construction (Sasmal and

Roy, 2016; Bhorat et al., 2024). Second, it considers resource competition, including groundwater overuse and land incursion, and the extent to which this pressure disrupts cross-border trade dynamics, such as food exports and informal markets (CGWB, 2023; FICCI, 2023). Thirdly, it assesses the potentialities of diplomatic frameworks for coopting migration into bilateral cooperation arrangements, such as seasonal labor corridors or joint adaptation funds, including Constructivist engagement (Adler, 1997), and the TWIN model (Zeitoun et al., 2011). This triangulating approach confirms migration as stressor but also as a possible source of institutional innovation.

LITERATURE REVIEW & THEORETICAL FRAMEWORK

Climate Migration & Border Economies A significant annual flow of over 400,000 Bangladeshis into India across borders (IOM, 2023) is largely due to extreme and increasing environmental degradation, which has given slow-onset and sudden events acutely forceful push dynamics. SLR, one of the most important consequences of climate change, poses a direct threat to the low-lying districts along the coast in Bangladesh. As it stands, much of the country's land area could be inundated by the impending SLR, threatening to displace millions (IPCC, 2022). The deluge in turn makes salinity intrusion worse, a common and catastrophic issue. Very salty water intrudes into farm land and freshwater aquifers, especially in the southwestern (Khulna, Satkhira) and central coastal regions (Bhola, Barisal). Studies suggest that salinity impacts more than 30% of coastal areas, making large areas unsuitable for traditional rice (the staple crop) cultivation and influencing drinking water sources (Chen & Mueller, 2019; Rabbani et al., 2013). The economic consequences for farmers and fisher folk are devastating, wiping out livelihoods of people who can't afford to switch to drought-resilient crops or take up new jobs.

Adding to these gradual-burn problems are more frequent and ferocious tropical cyclones. The geographical location of Bangladesh means that it is very prone to cyclones that develop in the Bay of Bengal. Cyclonic storm such as Sidr (2007), Aila (2009) Amphan (2020) and Sitrang (2022) has inflicted colossal damage and occurred in such terrible waves. These cyclones produce storm surges which flood coastal communities, destroy houses, and infrastructure (roads, embankments, schools, health centers), and salinize

lands, that also eventually result in huge loss of lives, and agricultural animals, crops (Akter, 2009; Islam et al., 2021). Recovery tends to be slow and incomplete, spurring populations pixilated by the storm to permanently migrate. In addition, the powerful river systems of Brahmaputra-Jamuna, Ganges-Padma, and Meghna erode thousands of acres of river banks and render hundreds of thousands homeless every year. Some 50,000 hectares of land are washed away with erosion on a decade-by-decade basis, and with little warning and even more scant recompense, homes, farms and even whole villages are swallowed up (Brammer, 2014). The combination of SLR, salinity intrusion on their water and croplands, cyclones, and erosion has made life increasingly impossible for vulnerable people in such regions, resulting in migration as less a choice but more a necessity for survival. India's porous border and historical migration corridors make its eastern states the first port of call for those fleeing these interconnected environmental disasters (Bhattacharya, S., 2021).

Labour Market Effects: Saturation and Wage Suppression in Border Districts There are clear and substantial effects of climate migration on local labour markets in certain Indian border districts. The labour supply in focal receiving areas is increased by 15-20% due to migrants based on estimates made elsewhere (Sasmal & Roy, 2016). This high-wave effect is felt primarily in the informal sector, where migrants, frequently with minimal skills and instant survival requirements, easily succumb to underpaid, precarious work. The most affected sectors are agriculture (seasonal labour, stealing), construction (unskilled labour), domestic work and petty trade/vending (Bhorat et al., 2024; Vij et al., 2021).

The main economic repercussion is to hold down wages. More labor is looking for similar or same jobs that aren't available in the same quantities, so competition pushes wages down. Observation from the border areas confirms this pattern. For example, the NSS-based analysis by Sasmal and Roy (2016) found that the farm–non-farm wage gap (for both farm and non-farm workers) did not increase over the period in border districts from which high levels of migration from Bangladesh were taking place; high wage growth over the period was observed only in agriculture in non-border districts and most spectacularly not in farm work in general (or in construction work also). Recent field research confirms this: daily wage levels in Assam's Dhubri district, another major corridor, fell by c.17% in

real terms between 2019 and 2023, in turn attracting a documented 22% surge in migrant presence (Bhorat et al., 2024). Same is the trend in boarder districts of West Bengal like North 24 Parganas and Murshidabad.

In addition to driving down wages directly, this labour market saturation can result in sectoral displacement of local workers. With competition for traditional sectors (like agriculture) or stagnant/falling wages, local low-skilled workers, especially young, could be further forced into more precarious forms of informal labour or internal migration to other states in India in the hopes of better livelihood opportunities (field interviews, Jalpaiguri, WB, 2023). This, in turn, sets off a nasty domino effect of job displacement and economic marginalization in the host communities. The competition between local inhabitants and migrants contribute to social tension and resentment between the two groups with the former believing the latter are competing with them for their survival, which further compounds the social-political aspect of the problem (Vij et al., 2021).

Resource Conflicts: Intensifying Scarcity and Competition When additional people seek shelter in border regions that are already under-resourced, it dramatically increases demand for scarce natural resources—primarily water and land—and thus increases tensions and has the potential to spur conflict. Water stress is particularly acute. Even the Brahmaputra basin districts of Assam, crisscrossed by a mighty river, manifest problems of water availability and seasonality. Migration inflows place enormous pressure on demand for drinking water and water for small-holder farming or livestock. Studies have shown that there are multiple important migrant-receiving districts in the Brahmaputra basin where per capita water availability has dropped below the critical threshold of 1,000 m^3/year, indicating water stress (Bhattacharya, 2021). That means increased dependence on the draining of groundwater. For instance, in Murshidabad district, West Bengal, areas of high migrant dispersion experienced an almost 40% increase in groundwater withdrawal rates in recent years, which led to 62% of the recorded monitoring wells (tube wells) having dried up in the peak of the summer (CGWB, 2023). This type of over-extraction drains aquifers, lowers the water table, and compromises water quality, impacting host community members and migrants alike and causing tensions over access to functioning wells and water sources.

Land competition is equally fierce. Migrants generally establish in marginal lands such as the fragile char (riverine) lands that are in risk of being washed away through erosion, reserved forests, and grazing lands (village commons) are also encroached. Satellite imagery and responses by the forest department support such substantial degradation; about 12,500 ha of reserved forests in Assam were reportedly degraded due to settlements, including illegal ones established by migrants (FSI, 2022; Bhattacharyya, 2021). 87014 The competition over these limited land resources -whether for the purpose of settlement, agriculture, grazing, or fuelwood collection-often spirals into localized conflicts between host communities and newcomers. These disputes centre around particular parcels of land, access to common property resources such as ponds and forests, and claims regarding encroachment. Pressure on resources also aggravates local institutions and governance structures, generally not capable of dealing with such demand volume or conflict management (Vij et al., 2021). This resource competition is not just an ecological problem, but it is also a contributing factor to social tension and a challenge to community harmony and stability in the highly vulnerable border areas.

THEORETICAL LENS: DIPLOMATIC CONSTRUCTIVISM

The multidimensional behemoth of climate-influenced migration from and between Bangladesh and India requires analytical frameworks that go beyond classic state-centric security lenses. Three major theoretical lenses constructivism, twin, and neoliberal institutionalist theories provide critical and complementary perspectives on how the common source of environmental threat can conceivably serve as a mechanism through which bilateral competitive relationships can be transformed into structured cooperative ones, where a potentially destabilizing stressor becomes a catalyst for institutional change.

The constructivist approach pioneered by Emanuel Adler generates a core realization of the contingency of state interest. According to Adler (1997), state interests are not fixed, nor can they be thought of as simply a product of material power or of geographic determinism; on the contrary, they are being continuously produced in a process of interaction, common knowledge, discursive practices and changing international norms. Climate change is such a strong external shock that can provoke a redefinition of

these identities and interests. For India and Bangladesh, the geography of suffering is of co-sharing it is the Bay of Bengal cyclones and the interlocking river systems challenged by the melting of Himalayan glaciers (Dasgupta and Norgaard, 2002) and, of course, the longer-term existential threat of sea level rise to the biodiversity and (dis)comfort of the Sundarbans mangrove forest that serves as a concrete basis for the development of a shared climate victim identity (Adger 2006). This emerging identity deasserts itself not just as yet another national story, but rather one based on a shared existential threat.

But this potential change is not just theoretical: it is reflected in actual frameworks of cooperation such as the Indio-Bangladesh Joint Rivers Commission (JRC) set up in 1972. Although their focus is predominantly the sharing of waters (most famously in the 1996 Ganges Treaty), the JRC offers an institutionalized forum, which emerged from the recognition of shared hydrological interdependence and the necessity for discourse. Adler's constructivist take insists that over time and after multiple encounters in such environments common approaches, common understanding — for example on common hydrological data — across the different states can emerge as well as the gradual internalization of new norms – such as the norm of cooperative adaptation and shared regional burden sharing on displaced populations (Bhasin & Das, 2020). The direction of change is made perceptible from the growing number of high-level joint statements that are unambiguous about shared climate risk (e.g. declarations issued after Cyclone Amphan in 2020). Aside from measures on climate impact — and potentially on the question of managing migrations — it seems that increasingly this type of cooperation is going to be more widely accepted as a legitimate and important part of the bilateral relationship, beyond this more traditional lens of migration being almost a sovereign security concern. Long-term dialogue, joint scientific assessments (such as the collaboratively-created vulnerability mapping in the Sundarbans), and people-to-people contacts centred on shared environmental legacy can help to reinforce this cooperative identity and to change perceived national interests in the direction of collective action.

The TWIN framework (*Transboundary Waters Interaction Nexus*) Mark Zeitoun et al (2011) is a complex, dynamic framing for the analysis of interaction by way of shared resources, something that is particularly

appropriate when it comes to climate migration. The TWIN framework goes beyond binary conflict/cooperation simplicities. It accommodates varying degrees of interaction intensity (i.e., from open conflict to conflict avoidance to containment to accommodation and, indeed, to collaboration) and acknowledges that different types of power (i.e., material, bargaining, ideational, and generative) shape outcomes. Critically, it argues that valuable or common resources give rise to interdependence, and it is actors' perceptions, framing and strategic handling of such interdependence which shapes the character of their interaction.

By turning the TWIN lens to climate migration, the flow of people across the border of India and Bangladesh can be analytically re casted not only as a security issue or humanitarian shortfall, but as an expression of deep transboundary entwinement resulting from common environmental decline, which is happening primarily within Bangladesh but affecting both countries. The framework facilitates the diagnosis of the prevailing dominant mode of interaction which tends to be one of 'conflict avoidance' (lack of engagement, denial of the scale of the modality) or 'containment' (borders fence, deportation drives, deterrence) reflecting India's main use of material power (security forces, infrastructure) and/or bargaining power (asymmetric size) to control the flow unilaterally (Zeitoun & Mirumachi, 2008).

But the TWIN framework also suggests paths toward cooperation of weaker forms such as accommodation (informal acceptance, local arrangements) and collaboration (common planning, joint institution building). This will require a major cognitive shift: understanding climate migration as an inevitable outcome of shared environmental stressors (salinity, cyclones, and erosion) rather than an act of aggression or economic advantage. The approach is about building social power – sustainable, power that can shape the future, and this sustained actions rests not on a series of constructs or concepts, but rather on the ideational and generative power (produce a new status quo) (Frank 2008) – cultivate shared scientific understanding through joint research, appeal to formational global norms on climate displacement (e.g., UNFCCC Task Force on Displacement), and exploit constructivist potential for shared identity to redefine the prized problem and what counts as solution. A collaborative direction entailed in this reframing might be:

Joint Risk Assessment and Early Warning Systems: Joint modeling and monitoring to forecast hotspots for climate-induced displacement, e.g. human displacement planning based on rates of salinity intrusion, patterns of riverbank erosion, or cyclone forecasts (IOM, 2023).

Managed migration channels: Building formal, regulated seasonal labour migration programs specific to sectors in India with demonstrated labour shortages (such as climate-resilient agriculture in less vulnerable regions or in specific construction projects), reducing irregular flows and ensuring legal protection and rights of migrant workers (TWIN: Moving towards "cooperation" through structured interdependence).

Shared Adaptation Investment Funds: Co-financed, locally-owned initiatives to mitigate the impact potential climate hotspots in Bangladesh (e.g., pilot investments in large-scale saline-resistant agriculture pilots, embankment strengthening, alternative livelihood Bcreation) reduce Fthe environmental push factors at source (Zeitoun 2011).

Robert Keohane's neoliberal institutionalism (1984, 1989) supplies the key instrumental logic for how cooperation, having now become the desirable outcome through constructivist identity shifts and TWIN reframing, can be realized and maintained in practice. Keohane says that in an anarchy dealing with a high interdependence world, where states feed off of each other across many issues, you get anarchy and complex interdependence and you do need institutions (regimes, treaties, formal organizations, procedures). They work by lowering the costs of transactions agencies that emerge to enhance cooperation (for example, costs of bargaining, monitoring, enforcement), providing credible information, designing mechanisms of credible commitments, enabling reciprocity, and developing institutions for settling disputes.

To take off from Gandhi's prophecy: if Keohane's regime theory is used as the theory of interest in the question - how to study international institutions then it certainly works, and India/Bangladesh is a perfect example. Ganges Water Sharing Treaty (1996) is a case in point. It created a complex institutional machinery through which the JRC and the permanent Joint Committee was established. The organization contributed significantly to transaction cost reductions by establishing an on-going institutional vehicle for discussion, a rule of easy measurement (specified measurement points), a dispute resolution mechanism, and a guaranteed minimum flow

in the dry-season. This was to ensure certainty and stability, so the potential conflict over such an essential shared resource could be avoided and also to show that complex cooperation is possible even on these highly sensitive issues (Nishat & Faisal, 2000; Crow & Singh, 2009). Agreements also on inland water transit and trade are aimed at facilitating cross-border trade by making procedures standard.

If we transfer this to climate migrants, then neoliberal institutionalism clearly leads to the believe, that building autonomous bilateral institutions or protocols to climate-induced displacement is not only possible, but rational. This could be through broadening existing frameworks like the JRC or mechanisms under the MoU on Disaster Management (2015) or by creating a new joint commission on climate migration. It is the cornerstone roles in helping mitigate the transaction costs and promote coordination among such institution.

POLICY IMPLICATIONS & DIPLOMATIC PATHWAYS

Empirical realities of climate-induced migration from Bangladesh to East India -affecting labor markets, stretching resources and halting trade- call for proactive and multi-dimensional policy responses. Transcending reactive border control entails finding a mix of diplomatic creativity and institutional flexibility, underpinned by the theoretical lessons learned above, that matches the prevailing socio-political context. The following paths map the view to convert a potential crisis into a platform for organized cooperation and shared adaptation.

BILATERAL DIPLOMACY: REFRAMING RELATIONS THROUGH SHARED CHALLENGES

Such bilateral relations should move from a mainly security-oriented to a climate solidarity and mutual interest management center, exploiting constructivist potential and model cases.

***Constructivist Engagement & Joint Adaptation*:** Acknowledging the emergence of a shared identity as climate-threatened neighbours, a constructive approach would call for shared action with a more effective use of the internationally-led spaces. One such avenue is the UNFCCC Loss and Damage Mechanism, created in COP27. India and Bangladesh could jointly propose and co-manage loss and damage-funded projects targeting

Bangladesh areas from which out-migration is high due to climate impacts (e.g. coastal Khulna salinity intrusion, chars of the river erosion-plagued north). And importantly, these efforts should be framed as migrant-inclusive adaptation, designed not just to make physical assets (embankments, water infrastructure) resilient, but to build livelihood diversification and creation in Bangladesh to alleviate displacement pressure (Adler, 1997; Khan et al., 2022). Co-governing such funds creates trust, produces co-learnings and perpetuates the norm that climate displacement is a mutual problem funded by historical emitters. Bilateral joint technical working groups on climate vulnerability mapping and displacement forecasting, possibly within the existing Joint Rivers Commission framework, could operationalize this cooperative identity through shared data and science as well (Bhasin & Das, 2020).

Labor Mobility Corridors: Acknowledging that some displacement is inevitable, it is urgent to establish legal and safe migration options for climate-displaced persons. India could also design focused seasonal work permit schemes, and formal policies, for such migrants from the identified climate-vulnerable districts in Bangladesh. Such programs should be based on best-corridor-building practices, such as that of the India-UAE migration corridor, which includes rigorous pre-departure orientation, skills matching (e.g., for climate-resilient agriculture, disaster-resilient construction, care work), transparent and regulated recruitment processes, legally enforceable labor contracts that protect workers' rights—most importantly minimum wage and working conditions—and a grievance redressal system (IOM, 2023; World Bank, 2023). Focusing visas on sectors for which India has been documented to have labour shortages (e.g. selected agricultural sectors during planting/harvesting seasons, infrastructure in non-border states), and as a consequence allay fears of wage suppression and have visible evidence for the potential benefits of both countries (Keohane, 1984). Such corridors deter irregular migration, prevent migrant exploitation and bring about predictable labor flows for Indian employers.

INSTITUTIONAL MECHANISMS: BUILDING COOPERATION FROM THE GROUND

Sustainable management depends on strong multiple level institutions, using TWIN framework and neoliberal institutionalism for mitigating conflict and promoting joint management.

Transboundary Climate Councils (Local Implementation): For localized resource conflict (water, land) due to migration impact, pilot sub-regional transboundary climate councils to solve those conflicts. These councils at the district/division level (for example Assam's Dhubri with Bangladesh's Kurigram/Sylhet; West Bengal's Murshidabad with Bangladesh's Kushtia/Khulna) aimed to consist of local government officials, community leaders (including settled representation of migrant), resource user groups (farmers, fishers) and technical expertise (Zeitoun et al., 2011). Their brief would be co-management of common resources: shared monitoring of groundwater levels and river flows, equitable water sharing or recharger plans in the face of scarcity of water, reforestation along the enclaves of the border, protocols of sustainable use of land close to settlements, handling early warnings that are valid for both the countries for climate hazards. This empowers local actors, engages local knowledge and creates cooperation at times and places where the stresses of interdependence (Cardenas and Ostrom, 2004) are most greatly felt, and where interaction between the parties is pushed away from conflict avoidance/containment toward accommodation and collaboration (TWIN: Zeitoun & Mirumachi 2008).

Trade Facilitation for Climate Resilience: Dedicated fast-track lanes and simplified procedures for climate-affected goods at the main land ports such as Petrapole-Benapole and Dawki-Tamabil can be introduced to mitigate trade disruptions and support adaptation. This includes: *Climate-Resilient Agricultural Produce*: Accelerate import/export seeds and salt/drought resistant crops (both developed in collaboration or in Bangladesh).*Disaster Response Supplies*: Faster movement across borders for humanitarian assistance, water purification equipment and building materials after a disaster. *Green Technology*: Enabling trade in competitively priced renewable energy equipment's (solar panels, biogas digesters) and water efficient irrigation systems focusing on the needs of the vulnerable communities on both sides. (FICCI, 2023).

ADDRESSING POLITICAL BARRIERS: NAVIGATING SENSITIVITIES

Successful collaboration involves addressing the nuanced political and legal barriers that are currently limiting momentum. *Refining Citizenship Norms*: There are steep obstacles placed in the way of the currently ultra-volatile discourse on the National Register for Citizens (NRC) and the Citizenship

Amendment Act (CAA). Key to clarity, will be to establish clear internationally recognised legal distinctions between economic migrants, persons fleeing persecution and climate displaced persons (UNHCR, 2021). For example, India's options for CAA/NRC accommodation might include modifications to (or a supplementary protocol for) the CAA/NRC framework, or a separate administrative classification for those displaced predominantly by justifiable, significant, climate impacts (ex: loss of habitation to sea-level rise, permanent saline intrusion that results in land becoming non-agricultural). This will entail strong common verification mechanisms between the Indian and Bangladeshi authorities to consider traug claims according to mutually agreed criteria (eg, geographical place of origin, vulnerability and timing of displacement with reference to climate events); assistance from the UNHCR/IOM to build these and similar mechanisms, and pressure on both India and Bangladesh to accept them;"; and it will require pressure on both India and Bangladesh to accept them. Politically difficult though it may be, making this distinction is crucial in order to avoid climate migrants being caught in legal limbo or mislabelled, which could hurt the cause (Amnesty International, 2023). Through the institutionalization of regular inter-state/division dialogue and border district coordination committees, it is believed that diplomacy on the ground could then take precedence in the formation of practical solutions, which can then be replicated at the national level (Sikor et al., 2017).

CONCLUSION

The policy lessons to be drawn from this are explicit: Addressing climate migration requires a transformation from unilateralism and security to a governance model of mutual commitments and integrated adaptation. Through dual bilateralism shaped around shared climate vulnerability and labor mobility; the construction of sturdy local and national institutions for resource co-management and trade facilitation; and by tackling the legal-political obstacles with nuanced categorization and subnational engagement, India and Bangladesh can convert what could be a source of instability into a managed element of their interlocked gracious existence. The Ganges Treaty It seems clear that complex cooperation can succeed. Such creative and politically explicit use of constructivist, TWIN and institutional frameworks is not only desirable when it comes to climate migration it is essential for

regional stability and human security in the Anthropocene. Failing to do so risks further entrenching human suffering, resource competition and economic devastation, while thwarting the developmental aspirations of the two countries.

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