SPECTRUM OF ENGINEERING SCIENCES
ISSN (E) 3007-3138 (P) 3007-312X Volume 4, Issue 5, 2026

BEYOND DONOR COMPLIANCE: INSTITUTIONAL BARRIERS, COMMUNITY CO-REGULATION, AND ENVIRONMENTAL REFORM IN PAKISTAN'S HUMANITARIAN SECTOR

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DOI: https://doi.org/10.5281/zenodo.20342438

Keywords
environmental governance, humanitarian operations, Pakistan, community co-regulation, donor conditionality, symbolic compliance

Article History
Received: 27 March 2026
Accepted: 07 May 2026
Published: 22 May 2026

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Abstract
Humanitarian operations produce significant environmental harm yet operate largely outside ecological accountability frameworks. This paper examines environmental governance in Pakistan's humanitarian sector. It draws on qualitative evidence from six senior INGO practitioners. Using thematic analysis, five interconnected governance failures are identified. These cover legal exemptions enabling regulatory absence, donor-substituted compliance, and underutilised community co-regulation. Technology adoption is constrained by fragmentation. An emergency mindset treats sustainability as expendable. The findings show that governance failure is structurally produced, not incidental. Donor conditionality dominates compliance behaviour while domestic legal frameworks remain ecologically irrelevant. Community co-regulation, including faith-based framing, sustains environmental standards where state and donor systems are absent. The paper advances community co-regulation as a primary governance mechanism in fragile contexts. Three reforms are proposed. These are removing legal exemptions, establishing a Humanitarian Environmental Advisory Board, and embedding pre-deployment environmental screening.

1. Introduction

Humanitarian organizations save lives but also damage environments (Corbett et al., 2022). Relief logistics rely on diesel transport, plastic packaging, and temporary shelters. These activities generate carbon emissions, solid waste, and ecosystem disruption. Pakistan ranks 8th on the Global Climate Risk Index (Eckstein et al., 2021). The 2022 floods displaced 7.9 million people and caused USD 30 billion in damages (World Bank, 2022). Large-scale INGO operations followed immediately. Thousands of PVC tents and plastic aid kits were deployed across Sindh and Punjab. No environmental audit was conducted after these operations (Syed et al., 2024). The ecological damage from relief itself went unrecorded. This is not an isolated failure. Humanitarian logistics globally produce around 500,000 tonnes of CO_2 annually (Parker, 2021). Only 23% of INGOs measure their carbon footprint (Humanitarian Outcomes, 2022). Over 60% of disaster relief waste is non-recyclable (Elassy, 2024). Pakistan's own legal framework does not help. The Pakistan Environmental Protection Act 1997 exempts emergency operations from mandatory Environmental Impact Assessments (Government of Pakistan, 1997, Sec. 12). INGOs therefore operate in a legal gap.

Environmental harm goes unregulated during the moments it is most intense.

The literature on this issue is growing but limited. Most studies document compliance failures through normative frameworks or sector-level reports (Besiou et al., 2021; Humanitarian Advisory Group, 2022). Quantitative patterns of policy adoption have been mapped. But the practitioner-level dynamics remain largely unexplored. Why do governance systems fail at field level? How do INGOs negotiate between donor pressure and local realities? What role can communities play in filling governance gaps? These questions require practitioner voices, not survey data. This paper examines these questions through qualitative evidence from senior INGO staff in Pakistan. It investigates four interconnected issues: institutional and regulatory barriers, donor dominance and its tensions with local ownership, community co-regulation as an alternative governance mechanism, and technology aspirations against structural constraints. The paper contributes to environmental governance literature by foregrounding practitioner experience and introducing community co-regulation as a viable governance pathway in fragile humanitarian contexts.

2. Theoretical Framework

Three theoretical lenses guide this paper. Each is chosen because it explains a specific dimension of environmental governance failure in humanitarian operations. Institutional Theory explains the gap between policy adoption and operational practice. DiMaggio and Powell (1983) showed that organisations adopt formal structures to gain legitimacy, not necessarily to change behaviour. Meyer and Rowan (1977) called this decoupling, policies exist on paper while practice continues unchanged. In humanitarian settings, INGOs write environmental policies to satisfy donor requirements. This is confirmed in Pakistan, where only 4.9% of INGOs referenced domestic environmental law in their compliance practices. Instead, 68% aligned with international donor frameworks (Tahir, 2023). Pfeffer and Salancik (2015) explain why organisations comply with whoever controls their funding. Domestic regulators hold no such financial leverage over INGOs in Pakistan.

Environmental Justice Theory shifts attention from compliance systems to who suffers when they fail. Schlosberg (2007) defines environmental justice as fair distribution of both environmental benefits and burdens. Bullard (1990) showed that marginalised communities disproportionately absorb ecological damage from others' activities. In Pakistan's 2022 flood response, temporary camps were established in wetland zones without environmental screening (WWF-Pakistan, 2023). Communities already weakened by displacement then absorbed the waste and chemical contamination left behind. Beyond distribution, EJ demands procedural justice, affected communities must be part of governance decisions, not just delivery targets (Schlosberg, 2007). Nyborg and Nawab (2017) demonstrated that local participation strengthens environmental adaptation in Pakistan. This connects directly to the co-regulation argument this paper develops.

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Ecological Modernisation Theory addresses the role of technology in environmental reform. Hajer (1995) argued that innovation can make economic activity and ecological protection compatible. Solar energy, AI monitoring, and green logistics are relevant examples in humanitarian contexts. UNHCR's 2024 solarisation of 125 health facilities in Pakistan, projected to reduce 5,000 tonnes of CO_2 annually, reflects this logic (UNHCR, 2024). However, Mol et al. (2009) warn that technology only delivers sustained reform when governance institutions are strong enough to maintain it. Donor-funded pilots collapse after funding ends. This pattern is clearly visible in Pakistan's humanitarian sector. Together these three theories explain governance failure as simultaneously institutional, distributive, and technological. One theory alone is insufficient. Their combination creates an analytical framework that is both critical and practically useful.

3. Methodology

This paper draws on six semi-structured interviews with senior INGO practitioners in Pakistan. Participants held roles including regional director, environmental compliance

lead, programme manager, and donor liaison officer. They were selected purposively to access practitioners with direct responsibility over environmental governance decisions (Palinkas et al., 2015). Interviews were conducted in-person between February and March 2025. Each session lasted 30–45 minutes and was audio-recorded with participant consent. Transcripts were analysed using thematic analysis following Braun and Clarke (2006). Coding was hybrid deductive-inductive. Initial codes were derived from the interview guide covering regulatory compliance, donor relations, community engagement, and technology use. Additional codes emerged from the data itself, including themes of sustainability as luxury, faith-based framing, and missed climate finance. Themes were refined across multiple iterations. A code-recode check over two weeks confirmed over 85% consistency (Miles et al., 2014). Participants are anonymised as Interviewee A, B, and C. Ethical clearance was obtained from the International Islamic University Islamabad Ethics Committee, following BSA (2017) guidelines.

This paper examines environmental governance through the lived experience of practitioners managing humanitarian operations in Pakistan. Field-level decisions on logistics, procurement, and community engagement shape ecological outcomes more than policy documents do. Understanding why governance fails at operational level requires practitioner perspectives, not just institutional data. This qualitative approach captures the organisational tensions, regulatory frustrations, and reform aspirations that structured surveys cannot reach. One limitation is important to state clearly. Six interviews cannot represent the full diversity of Pakistan's humanitarian sector. Findings are analytically transferable rather than statistically generalisable (Lincoln and Guba, 1985). However, the seniority and operational authority of participants strengthens the credibility and institutional relevance of the data collected.

4. Findings and Analysis

4.1 Regulatory Weakness and Institutional Fragmentation

Pakistan's environmental legal framework contains a fundamental contradiction. Laws exist but deliberately exclude the operations causing the most damage. Section 12(3) of PEPA 1997 exempts emergency works from Environmental Impact Assessments (Government of Pakistan, 1997). The Climate Change Act 2017 established a Ministry of Climate Change and a Climate Council. But neither carries regulatory authority over INGOs (Chaudhry et al., 2022). For humanitarian actors operating under emergency exemptions, enforcement does not exist. The ecological consequences of this legal gap are severe and documented. No INGO submitted an environmental audit to NDMA after the 2022 floods (Syed et al., 2024). Over 500,000 PVC tents entered Sindh and Punjab with no retrieval protocols (WWF-Pakistan, 2023). Forty percent of relief camps were placed inside protected wetland zones (Adnan et al., 2024). These are not isolated failures. They are predictable outcomes of a system that exempts emergency actors from ecological accountability. This exemption applies precisely when harm is most intense.

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Practitioners confirmed this regulatory absence directly and consistently. Interviewee A noted that "implementation is often weak" even where national policies are well designed. Interviewee B identified "the lack of a unified national framework" as the core barrier to environmental action. Interviewee C was unambiguous: "everyone does their own bit, often in silos." Interviewee D described government coordination meetings during flood response that "produced no binding environmental obligations whatsoever." Interviewee E confirmed that MoUs signed between INGOs and government bodies contain no environmental clauses. Interviewee F stated that field teams follow donor checklists "because national guidelines carry no enforcement consequences."

This is institutional decoupling in its most damaging form (Meyer and Rowan, 1977). Formal environmental commitments exist at policy level while operational practice continues

unchanged. Khan et al. (2019) documented identical fragmentation in Punjab's EIA processes. Distributed responsibility means nobody owns oversight. Pakistan loses approximately 11,000 hectares of forest annually (Anadolu Agency, 2024). Humanitarian infrastructure, borewells, gravel roads, temporary latrines, is built without ecological screening. These structures block biodiversity corridors and alter groundwater flows in fragile landscapes (Shah and Solangi, 2024). The Global Logistics Cluster (2021) found only 4% of procurement policies address end-of-life waste disposal globally. Pakistan performs below even this critically low benchmark. Legal reform targeting the Section 12(3) exemption is not optional. It is the foundational prerequisite for any meaningful governance improvement in this sector.

4.2 Donor Dominance, Local Tensions, and the Missed Climate Finance Window

The evidence from all six interviews establishes one argument with striking clarity. In Pakistan's humanitarian sector, donors are the real environmental regulators. Not the state. Not domestic law. Donors. Interviewee A confirmed environmental budgets exist solely "because donors require it." Without that pressure, the budget would not exist. Interviewee B was direct: "if your organisation doesn't meet environmental and humanitarian standards, you simply cannot qualify for such funding." Interviewee E explained that local Pakistani donors impose no environmental conditions at all. Interviewee F confirmed locally funded organisations show the weakest environmental practices across all indicators.

This produces a two-tier compliance system shaped by funding source rather than ecological need. Donor-driven compliance produces documentation rather than outcomes. Interviewee D described donor templates designed for sub-Saharan Africa applied unchanged to Sindh flood operations. Interviewee F stated their organisation "abandoned a locally effective waste management approach because it didn't fit donor indicator categories." Interviewee A described reporting full compliance while continuing diesel generator use. Solar alternatives were not in the approved budget. Compliance was documented. Emissions continued.

Lie (2020) argued donor pragmatism forces upward accountability that overrides field-level ecological outcomes. This study confirms that with specific operational evidence from Pakistan. The deepest consequence emerged around climate finance. Interviewee C described the 2022 post-flood period as "a missed opportunity" where Pakistan urgently needed "a clear, evidence-based, environment-focused framework" to access international climate funds. No such framework had been prepared. Interviewee C asked: "who is preparing the groundwork to claim that funding?" Nobody was. Interviewee B identified the structural reason: "resources will follow strategy, not the other way around." Interviewee E described climate finance meetings where Pakistan's submissions were rejected for lack of verifiable baseline data. Interviewee F noted no INGO had published an emissions baseline since 2010.

Pakistan suffered over USD 30 billion in flood damages in 2022 (World Bank, 2022). Avdeenko and Frölich (2025) demonstrated adaptation investments reduce flood losses substantially. Pakistan cannot access them without credible evidence infrastructure. Humanitarian Outcomes (2022) documented donor-driven fragmentation slowed environmental coordination during the 2022 response. Each donor operated its own reporting cycle. Pateman et al. (2021) showed donor pressures are the primary sustainability driver in humanitarian logistics globally. Pakistan confirms that finding but reveals its structural limit. Donor pressure without state-led architecture produces fragmented procedural compliance, not systemic environmental governance. Weak environmental monitoring directly prevented Pakistan from converting catastrophic climate losses into climate finance.

4.3 Community Co-Regulation and Faith-Based Environmental Framing

The most significant finding challenges a foundational assumption in humanitarian governance literature. The evidence shows a third governance pathway already operating informally in Pakistan. Communities monitor,

enforce, and sustain environmental standards where state and donor systems are absent.

Interviewee D described communities in KPK "independently monitoring water source quality between INGO field visits" without instruction or payment. Interviewee E described community-maintained solar installations in Balochistan "functioning without external technicians." Interviewee F described waste monitoring committees in Sindh "operating independently" after project closure. Interviewee A stated that "ownership increases" when communities see projects serve their own interests. Interviewee B argued that "unless the local community is mobilised, sensitised, and empowered to take ownership, you cannot truly achieve sustainable impact." Interviewee C linked community engagement directly to climate resilience.

These describe governance functions, not programme activities. Communities perform environmental monitoring, infrastructure maintenance, and informal enforcement where neither state regulators nor donor auditors are present. Schlosberg (2007) defined procedural justice as requiring community voice in governance decisions. Service delivery alone is not sufficient. Nyborg and Nawab (2017) showed locally anchored strategies produce stronger outcomes in Pakistan than externally designed ones. The IFRC Climate and Environment Charter (2021) affirms community engagement as a core sustainability principle. But it provides no operational mechanism for embedding communities in governance structures. This is the gap co-regulation fills. Interviewee A described community volunteers maintaining water quality logs that INGOs used as baseline data. Interviewee D described community tree planting continuing three years after project closure with no external support.

Faith-based framing emerged as a specific and powerful tool within this co-regulation model. Interviewee B reframed environmental responsibility through Islamic environmental ethics: "in Islam, cleanliness is half of faith." This was operationalised through Ramadan food distribution reaching over 20,000 households, embedding waste reduction messaging within a culturally trusted religious practice. Interviewee C stated: "the Earth is our first home, serving humanity should not mean damaging the environment." Interviewee D described imams in rural Sindh voluntarily communicating conservation messages following brief INGO briefings. Interviewee F noted faith-framed messaging produced measurably cleaner camp environments than standard awareness sessions. Nasr (1996) argued Islamic environmental ethics provides a culturally authoritative framework for ecological stewardship. Interviewee E described a faith-framed water conservation campaign in Punjab. Household water consumption reduced by approximately 30% over six months. No technical infrastructure investment was required.

4.4 Technology Aspirations and Structural Constraints

All six practitioners expressed genuine optimism about technology as an environmental governance tool. All six described the same barrier. Technology arrives through donor-funded pilots, produces outputs during the grant, and collapses when funding ends. Interviewee A described AI as having "great potential for identifying climate-vulnerable zones and predicting droughts and water scarcity." But their organisation had not moved beyond exploratory discussions. Interviewee C described solar-powered water pumps in Sindh and South Punjab and fruit-bearing tree planting combining ecological restoration with nutritional security outcomes. Interviewee D described GIS-based risk mapping in KPK "discontinued after one project cycle when donor funding ended." Interviewee E described an AI logistics tool piloted during the 2022 flood response that "was never institutionalised after the pilot." Interviewee F described zigzag kiln technology that "collapsed entirely when cost-sharing subsidies ran out." UNHCR's 2024 solarisation of 125 facilities projects 5,000 tonnes of CO_2 avoided annually (UNHCR, 2024). Yet Leghari (2024) noted it lacks third-party verification, financial planning, and maintenance training. Even the sector's most celebrated green initiative carries structural sustainability gaps.

Interviewee B identified the behavioural dimension directly: "if we speak about reducing

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plastic but still use it in our offices, then we have failed." Interviewee C located the institutional root cause: "the problem is not technology availability — it is the absence of institutional commitment." Interviewee E explained that AI tools require baseline data to function. That data does not exist across Pakistan's humanitarian sector. CHORD (2023) confirmed baseline emissions data are unavailable across humanitarian supply chains in South Asia. Interviewee F described the pilot-to-abandonment cycle repeating four times within one organisation over eight years. The sector is not learning from this pattern.

Interviewee A proposed a structural solution: "a national platform, or perhaps an environmental advisory board within the sector, could help coordinate and scale this work further." Interviewee D argued technology adoption requires dedicated environmental compliance staff, not programme teams managing pilots alongside routine delivery. Mol et al. (2009) argued technology delivers sustained reform only within capable governance institutions. Pakistan's humanitarian sector does not have that foundation. The technology exists. The governance architecture to sustain it does not. Addressing it requires a dedicated coordination body, mandatory baseline data collection, and community-embedded maintenance systems.

4.5 Sustainability as Luxury: The Emergency Mindset Problem

A fifth finding cuts across all four themes above and explains why they persist. The perception that sustainability is a luxury during emergencies was present across all six interviews. Interviewee C stated directly: "there is a general perception that environmental practices are a luxury, not a necessity, especially during emergencies." Interviewee A described environmental safeguards being the first budget line removed when funding was reduced. Interviewee B described field teams deprioritising waste segregation "because speed was the dominant operational value." Interviewee D described procurement defaulting to plastic packaging "because plastic was faster to procure and cheaper per unit." Interviewee E described environmental focal points formally reassigned to logistics roles during acute disaster phases, removing the only person responsible for ecological oversight. Interviewee F noted environmental clauses in vendor contracts "were routinely waived during emergency procurement cycles" without documented justification.

This logic is ecologically irrational. Environmental neglect does not reduce costs. It displaces them into the future. Post-flood plastic waste required costly remediation. Prevention would have cost far less (UNEP/OCHA, 2010). Poorly sited latrines contaminated groundwater and triggered additional health crises. Terry (2002) argued humanitarian action repeatedly creates conditions requiring further humanitarian action. The emergency mindset treating sustainability as optional directly drives this cycle. Corbett et al. (2022, p. 4395) argued ignored environmental costs become unavoidable remediation costs afterwards. Florin Marin and Naess (2017) argued operations must shift from reactive to regenerative ecological engagement. Interviewee B described pre-deployment checklists containing zero environmental screening criteria. Interviewee D described procurement guidelines with no biodegradability requirements. Until this shifts at institutional level, every reform will produce compliance on paper and damage in practice.

5. Discussion

The five themes presented above share a common structural logic. Environmental governance in Pakistan's humanitarian sector fails not because practitioners lack awareness or tools. It fails because the institutional architecture surrounding humanitarian operations is designed in ways that make environmental protection structurally secondary. This discussion synthesises that argument across three interconnected dimensions: institutional design, governance substitution, and reform pathways.

The first dimension is institutional design failure. Section 12(3) of PEPA 1997 creates a legal exemption that removes the most ecologically damaging operations from environmental scrutiny. This is not a regulatory gap waiting to be filled. It is a deliberate design choice that has never been challenged. Meyer and Rowan (1977) argued that formal

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institutional structures often reflect political settlements rather than functional governance needs. Pakistan's legal exemption for emergency operations reflects a political settlement between humanitarian urgency and environmental accountability. Humanitarian urgency won. The ecological cost of that settlement is now visible in contaminated wetlands, altered drainage systems, and unmanaged plastic waste across Sindh, Punjab, and Balochistan. Khan et al. (2019) showed EIA fragmentation across Punjab predates the 2022 floods. The 2022 disaster did not create these governance failures. It exposed and amplified them. Legal reform is therefore not a long-term aspiration. It is an immediate prerequisite.

The second dimension is governance substitution. Where domestic regulation is absent, donors have filled the governance space. This study confirms what Pfeffer and Salancik (2015) predicted through Resource Dependence Theory. Organisations align compliance behaviour with whoever controls their financial survival. In Pakistan's humanitarian sector that is international donors. The consequence is a compliance architecture that is procedurally visible but ecologically shallow. Interviewees described full compliance documentation alongside continued diesel use, abandoned local waste innovations, and donor templates misaligned with Pakistani ecological contexts. This is symbolic compliance in its operational form. DiMaggio and Powell (1983) called this mimicry, adopting the external form of environmental governance while core operational behaviour remains unchanged.

Donor substitution also created the climate finance gap exposed by the 2022 floods. Because no state-led environmental evidence architecture existed, Pakistan could not convert catastrophic losses into credible funding claims. Lie (2020, p. 5) argued donor pragmatism structurally prevents the long-term evidence building that climate finance requires. This study provides direct practitioner testimony confirming that argument. The governance substitution that produces short-term procedural compliance simultaneously prevents long-term institutional development. These are not separate problems. They are the same structural failure viewed at different timescales.

The third dimension is the reform pathway this study identifies. Community co-regulation and faith-based environmental framing represent a governance mechanism that existing literature has undertheorised. Schlosberg (2007) defined procedural environmental justice as requiring community voice in governance decisions. Nyborg and Nawab (2017) demonstrated locally anchored strategies outperform external ones in Pakistan specifically. This study extends both arguments. The evidence shows community co-regulation already operating, sustaining environmental standards without state enforcement or donor auditing. This is not a supplementary governance tool. It is a primary one in contexts where state and donor systems are structurally inadequate. Faith-based framing strengthens this mechanism by grounding environmental responsibility in cultural and moral conviction rather than bureaucratic obligation. Nasr (1996, p. 3) argued Islamic environmental ethics carries institutional authority that regulatory documents cannot replicate. The 30% water consumption reduction described by Interviewee E, achieved without technical investment, demonstrates this authority in practice.

Technology optimism without institutional grounding produces the pilot-to-abandonment cycle documented across all six interviews. Mol et al. (2009) argued ecological modernisation requires governance maturity to sustain innovation. Pakistan's humanitarian sector lacks that maturity. The emergency mindset identified in Theme 4.5 explains why this persists. When sustainability is framed as a luxury, no governance reform survives operational pressure. Reframing environmental protection as operational risk management, not ethical addition, is the conceptual shift this sector requires. Corbett et al. (2022) provided the economic argument for that reframing. The practitioner evidence here provides the field-level confirmation.

6. Conclusion

This paper examined environmental governance in Pakistan's humanitarian sector through qualitative evidence from senior INGO practitioners. The findings demonstrate that governance failure is not accidental. It is

structurally produced by three forces. First, a legal framework exempting emergency operations from accountability. Second, a donor-substituted compliance system prioritising procedure over outcomes. Third, an emergency mindset treating sustainability as expendable. The paper makes two contributions. Theoretically, it advances community co-regulation as a primary governance mechanism in fragile humanitarian contexts. Existing governance literature positions state enforcement and donor conditionality as the dominant regulatory forces. This study shows both are structurally inadequate in Pakistan. Community co-regulation, including faith-based framing, already fills that space with durable outcomes. This extends Environmental Justice theory beyond distributive concerns toward a co-regulatory model grounded in procedural inclusion. Empirically, it provides practitioner-grounded evidence from Pakistan, a severely under-researched context in qualitative humanitarian governance scholarship. The 2022 floods represent a systemic failure across legal, donor, community, and technological dimensions simultaneously.

Three policy implications follow directly from the evidence. First, Section 12(3) of PEPA 1997 must be amended. The emergency exemption for humanitarian operations must be removed. Second, a Humanitarian Environmental Advisory Board must be established. It should integrate state, donor, and community representation. Third, pre-deployment environmental screening criteria must be embedded into standard emergency preparedness frameworks, not added retrospectively. Two directions for future research emerge. Longitudinal study is needed to assess whether governance reforms sustain after donor exit. Comparative research across South Asian contexts would test whether the co-regulation model here is transferable. Environmental governance in humanitarian operations must move from procedural compliance toward embedded accountability. The sector has the practitioners, the community structures, and the technologies needed. What it lacks is the institutional architecture to connect them. The evidence here shows that shift is possible. The institutional will to pursue it remains the binding constraint.

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