

Transitional Justice in Environmental Justice Movements

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Abstract

Environmental justice movements in Europe articulate transitional justice through four primary mechanisms: reparation, legal accountability, institutional reform, and truth-telling. Drawing on cases from water governance (Ahr Valley floods, Doñana aquifer depletion) and extractive conflicts (Hambach lignite mining, Retortillo uranium project), this study examines how local histories of sudden disasters, slow-onset degradation, and imposed extraction shape demands made by social movements. Water movements emphasize technocratic, data-driven frames and cooperative governance, mobilizing volunteers, scientific monitoring, and EU legal precedents. Extractive movements deploy moral-rights language and combine direct action with strategic litigation to challenge corporate-state collusion. Coalition structures range from institutionalized multi-stakeholder forums to ad hoc alliances, reflecting each context's political opportunity. Across all, a forward-looking justice ethos prevails, prioritizing prevention over restoration and embedding ecological and social repair within democratic accountability. This comparative analysis highlights both convergence around shared justice principles and divergence in strategies tailored to specific ecological and governance challenges.

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1 Introduction

1.1. Background and Context

“Rebuilding damaged historical relationships between parties, correcting past wrongs against humanity, and restoring the Earth” (Harlan et al, 2015) encapsulates the essence of environmental justice as a means to address historical injustices and sets the stage for understanding how our past industrial practices now demand a restorative response. Europe's economic growth has had profound effects on its social and environmental spheres. From the early days of the Industrial Revolution to the rapid urbanization and technological advances in the 20th century, growth came mainly at the cost of the environment. Environmental disregard resulted in widespread ecological damage in terms of polluted rivers, deforestation, and contaminated land, whose ill effects can be observed even today (Schlosberg, 2007). The environmental problems generated by these processes were not equally shared, with marginalized communities often bearing the brunt of ecological degradation – a reality that galvanized the formation of environmental justice frameworks (Pellow, 2000).

The impacts of industrialization have created a general awareness of the lasting consequences of historical environmental degradation. They become visible not only in the form of physical degradation but also in terms of eroding community health and social capital. Increasingly, affected communities have mobilized to hold accountable public and private institutions that prioritize economic development over environmental sustainability. This activism has given birth to a diverse array of social movements (University of Illinois, 2025), which now frame environmental degradation as a severe contravention of human rights, calling for remediation and redress (Tarrow, 2011).

Central to these movements is the call for justice in combating environmental harm. Traditionally associated with post-conflict scenarios and the need to address legacies of political violence, transitional justice has expanded over the years to include the redress of historical environmental harms in some research (Lougheed, 2023; Teitel, 2000). This expanded application acknowledges that environmental degradation can also be framed as a form of systemic injustice, one which not only wreaks havoc on natural resources but also perpetuates social inequalities through generations. By invoking transitional justice, social movements aim to reframe the narrative of environmental degradation, situating it in the arc of historical injustice and calling for comprehensive reparative action.

Amid today's climate crisis, the European Union (EU) has become central in promoting environmental sustainability and justice. Despite this, it is crucial to acknowledge Europe's historical role in driving climate change and environmental injustice. As the climate justice coalition ‘Wretched of the Earth’ (2020) states: “The same European colonialism that colonised and plundered entire nations through the logic of white supremacy, was the same project that sought to control and exploit nature. This is the origin of the ecological collapse we are witnessing today”. EU initiatives like the European Green Deal aim to address environmental challenges while acknowledging harmful industrial legacies (European Commission, 2019), linking economic and ecological goals with human rights. The European Environmental Agency (EEA) emphasizes: “in the context of climate and environmental action, we must also consider restorative justice, which is a specific type of justice focusing on past and present harm to people, species and ecosystems” (EEA, 2024). Together, these principles reflect the EU's holistic strategy: sustainable progress must rest on historical accountability.

Despite these policy interventions, large parts of the world continue to suffer from the legacies of industrial degradation. Environmental injustices take numerous forms, from the siting of hazardous facilities in economically disadvantaged areas to the uneven distribution of resources for climate adaptation. These

inequities underscore the necessity of the social movements that have mobilized to challenge the status quo. Grassroots organizations, civil society associations, and transnational networks actively mobilize communities to demand environmental remediation and social reparations. Movements, such as Ende Gelände in Germany or Legambiente in Italy, employ a variety of strategies, ranging from local protest actions to online campaigns, each of which is suited to the particular historical and political context of the respective countries (Schlosberg, 2007; Tarrow, 2011).

The shifting interrelation between Europe's industrial past, environmental degradation, and social injustice has thus set the stage for a new wave of environmental and transitional justice activism. Social movements are not merely reaction mechanisms; they actively reconfigure human-nature relations through their demands for redress of past injustices through systemic change. This call for justice, both transitional and environmental, reshapes public discourse and policy-making and is therefore a priority area of research to explore how societies may move towards more sustainable and equitable futures.

1.2. Research Gap and Research Puzzle

Even while environmental and transitional justice gain more academia, there is a very serious research gap in the usage of the interwoven narratives of these two by social movements in Europe. The use of a transitional justice framework to damages caused by climate change is an example of how much of the literature has discussed such problems separately on a large scale or with two variables under analysis (Lougheed, 2023). Comparative assessment of how various sociopolitical and historical contexts influence social movement mobilization tactics is minimal. The nuance of connecting environmental harm with calls for transitional justice is usually neglected by current scholarship, especially in the scenario of multi-regional methodologies.

This research puzzle revolves around understanding how varied local experiences of historical ecological damage inform the discursive and operational practices of social movements. Little is known about how movements in regions with distinct industrial legacies, political structures, and historical experiences adapt their narratives of justice or how do these differences affect their strategies and the eventual outcomes of their mobilization efforts. Addressing this gap is vital since it will illuminate the variables responsible for the success or moderation of social movements in achieving systemic transformation. The comparative approach will be employed to untangle the interaction between the multidimensional context of history, institutional responsiveness, and activist strategy, and hence illuminating an enhanced insight into the dynamics at play in contemporary environmental and transitional justice movements.

1.3. Research Question

Based on the above-outlined gap in knowledge that is found in the intersections of the studies on transitional justice, environmental justice, and social movements, this thesis will aim to answer the following research question: *How do social movements across different European regions mobilize narratives of environmental*

and transitional justice to demand acknowledgment and reparations for historical ecological damage, and what regional differences emerge in their strategies?

To address this overarching question, the research is further refined by the following sub-questions: (1) What specific objectives, demands, and visions for transitional justice are articulated by these social movements in their environmental justice mobilizations? (2) How do local histories of ecological damage and experiences of transitional injustice shape the way social movements frame their calls for acknowledgment and reparations? (3) What strategic variations, such as discursive approaches, mobilization tactics, and coalition-building efforts, can be observed in the pursuit of reparative measures among these movements across different regional contexts?

Through these questions, this thesis aims at creating an explanatory understanding of varying strategies of social movements in the intersecting interests of transitional and environmental justice as well as gaining insights that can be gained from the outcomes of such strategies. The relevance, purpose and the main ideas connected to the here identified sub-questions will be further explored in the following methodology section of this thesis.

To derive an answer for these questions the thesis will be structured as follows. Chapter 2 reviews the literature on environmental and transitional justice, situating the study within current debates. Chapter 3 outlines the methodological approach, including case selection and coding strategy. Chapters 4 present the four case studies—Ahr Valley, Doñana, Hambach, and Retortillo—analyzed through the dimensions of reparations, legal mechanisms, institutional reform, and truth-telling. Chapter 5 offers a comparative discussion, highlighting emergent justice framings. Finally, Chapter 6 concludes by reflecting on theoretical contributions and implications for environmental governance.

2 Theoretical Framework

2.1. Introduction

This chapter outlines the theoretical framework guiding the paper by integrating key perspectives from environmental justice, transitional justice, social movement theory, and framing theory. These provide a

comprehensive lens to examine how social movements mobilize narratives in addressing historical ecological damage across different European regions. By combining insights on resource mobilization, political opportunities, narrative construction, and systemic inequities, this framework enables a nuanced understanding of the interplay between historical legacies and contemporary activism.

2.2. Environmental and Transitional Justice in Addressing Environmental Harm

Environmental justice theory and transitional justice theory are unique yet increasingly converging frameworks for understanding and addressing environmental harm. While environmental justice emerged mainly as a response to disproportionate exposure to environmental harm, transitional justice was formulated originally to address systemic human rights violations in post-conflict states. Both frameworks have evolved to acknowledge the deep entanglement of environmental damage with social injustice, although they vary in focus, scope, and mechanisms of redress.

Environmental justice theory is concerned with the fair distribution of environmental benefits and costs, underpinned by moral and empirical justification. The discipline's early work describes how marginalized groups - often racial, class, or geographically defined - are disproportionately exposed to environmental threats, such as pollution or toxic waste (Pellow, 2000). This imbalance is not just environmental but deeply political and social, reflecting broader patterns of systemic discrimination. Environmental justice is thus not just an issue of protecting ecosystems but of guaranteeing human rights and promoting social equity. It has influenced policy debate and grassroots activism by demanding participatory decision-making and regulatory reform (Schlosberg, 2007).

Dimensions	Definition	Examples/ Indicators
Distributive Justice	Fair allocation of environmental benefits and burdens	Levels of pollution exposure; access to clean water and air
Procedural Justice	Inclusive, transparent decision-making processes in environmental governance	Community participation; representation in policy-making
Recognition Justice	Acknowledgment of marginalized groups' cultural and social identities	Advocacy for historical redress; inclusive narrative framing

TABLE 1: ENVIRONMENTAL JUSTICE

Recent developments in environmental justice theory have expanded the concept of justice to include procedural and recognitional justice. Alongside the equitable distribution of resources, this strand of thought emphasizes the requirement to include affected communities in environmental governance and to hear their voices. The theory is thus an effective lens through which to analyze the ways that environmental discourses are constructed and struggled over in social movements, especially those led by historically marginalized groups. In contrast, transitional justice theory originated in post-authoritarian and post-conflict settings, aiming to reconcile societies with past atrocities through mechanisms such as truth commissions, criminal prosecutions, reparations, and institutional reforms (Teitel, 2000). Though historically focused on political violence and human rights abuses, transitional justice has increasingly been applied to environmental harm,

particularly where degradation stems from state neglect or complicity. Rather than competing with environmental justice it augments the established mechanisms by providing more concrete pathways for dealing with the human rights violations aspects of environmental harm.

This amended view of transitional justice considers environmental degradation as a form of structural violence with enduring consequences. When ecological harm systematically targets or disproportionately affects marginalized groups, it undermines public health, social trust, and economic stability. By integrating environmental reparations and sustainability-focused institutional reforms, transitional justice offers a holistic mechanism for societal healing, especially in regions where environmental damage compounds historical injustices (Hayner, 2011; Klinsky & Brankovic, 2018). Additionally, transitional justice frameworks introduce further mechanisms which can be employed to garner accountability, such as legal mechanisms and truth-telling, which can complement the grassroots orientation that can be typically found in environmental justice movements (Klinsky & Brankovic, 2018).

Dimension	Definition	Examples/ Indicators
Reparations	Financial, restorative, or policy-based measures to compensate affected communities	Compensation funds; remediation projects; housing or health aid
Legal Mechanisms	Formal processes (prosecutions) adapted to environmental claims	Use of environmental tribunals; specialized investigations
Institutional Reform	Policy and regulatory changes implemented to prevent future environmental injustices	Updates in environmental laws; creation of oversight bodies
Truth Telling	Recognition by institutions of environmental harm as a historical injustice and future transparency for the public	Official apologies; public reports acknowledging environmental damage; transparency obligations

TABLE 2: TRANSITIONAL JUSTICE

The traditional understanding of transitional justice can be understood to be comprised by types of justice retributive and restorative justice. Restorative justice empowers victims and offenders to collaboratively address the harm caused, fostering accountability, healing, and mutual agreement on reparations (ICTJ, 2024). Retributive justice focuses on punishing wrongdoers to satisfy societal demands for vengeance and deterrence (Varney, 2007). Truth and reconciliation initiatives as introduced through Transitional Justice go further, bringing former adversaries together to uncover facts, acknowledge suffering, and promote collective healing, aiming to rebuild trust and prevent future conflict. These approaches offer distinct paths—repairing relationships, imposing penalties, or fostering societal reconciliation—tailored to different forms and legacies of wrongdoing.

Despite their differences, environmental and transitional justice theories increasingly converge around a shared understanding of environmental harm as both a material and symbolic injustice. Environmental justice theory highlights the ongoing structural inequalities in environmental governance, while transitional justice theory addresses how historical environmental harm can be redressed through formal mechanisms of

accountability and recognition in order to foster reconciliation and long-term peace. Together, these frameworks provide complementary lenses through which to understand and contest environmental injustice, especially when mobilized by social movements seeking both immediate and long-term transformation.

Dimension	Environmental Justice Theory	Transitional Justice Theory
Origins	Emerged from grassroots movements in the 1980s and 1990s focused on environmental racism and inequality	Developed in post-conflict and post-authoritarian contexts to address systematic human rights violations
Core Focus	Fair distribution of environmental benefits and burdens; procedural and recognitional justice	Redress for past harms, reconciliation, and institutional reform; recently expanded to include environmental harms
Primary Mechanisms	Community engagement, participatory governance, regulatory reform	Truth commissions, reparations, legal mechanisms, institutional reforms
Justice Dimensions	Distributive, procedural, and recognitional justice	Retributive and restorative justice

TABLE 3: ENVIRONMENTAL JUSTICE AND TRANSITIONAL JUSTICE COMPARISON

2.3. Social Movements

Social movement theory describes the dynamics of collective action and forces that drive the construction, mobilization, and transformation of social movements. Theory comprises numerous factors influencing movement activity such as framing processes, political opportunity structures, collective identity construction, and resource mobilisation. Resource mobilisation theory explains how social movements strategically acquire and deploy resources—funds, personnel, information, and networks—to sustain activity and challenge entrenched power (McAdam, Tarrow, & Tilly, 2001). Movements are thus structured and planned, not spontaneous expressions of frustration. Political opportunity structures complement this view by highlighting how external institutional and political conditions shape movement success: favorable contexts enhance impact, while restrictive environments necessitate adaptive strategies (Tarrow, 2011). Equally important is collective identity formation, which unites participants around shared perceptions of injustice and common goals. Framing processes translate individual grievances into cohesive narratives that resonate with broader audiences, shape public opinion, and influence policy discourse. Together, these dynamics explain how movements mobilize resources, sustain engagement, and effectively pursue their objectives.

Dimension	Definition	Practical Indicators
Resource Mobilisation	Strategic acquisition and management of both tangible and intangible resources.	Fundraising campaigns, volunteer recruitment, media outreach.

Political Opportunity	External conditions that enhance or limit the effectiveness of movement activities.	Political openness, regulatory reforms, legislative windows.
Collective Identity	The process by which individuals unite around shared beliefs and grievances.	Unified symbols, consistent messaging, participant diversity.
Framing Processes	Techniques used to construct and communicate a movement's narrative.	Narrative construction, selective emphasis, media framing consistency.

TABLE 4: DIMENSIONS OF SOCIAL MOVEMENT THEORY

Blame clarity and harm concentration critically shape environmental mobilization strategies. When damage stems from a single, identifiable source and impacts a concentrated group, movements can direct precise demands at culpable actors, driving high mobilization through direct confrontations, strategic litigation, and focused media campaigns (Javeline, 2003). Conversely, diffused or non-point harms—like agricultural runoff affecting broad populations—require broad coalitions, moral appeals, and policy advocacy, yielding only medium to low mobilization intensity (Snow & Benford, 1988). Thus, clear origin with concentrated harm enables high-potential direct action; clear origin with diffuse harm prompts public education and lobbying (medium potential); vague origin with concentrated harm relies on investigative framing and alliance-building (medium potential); and diffuse origin with diffuse harm demands long-term discourse framing and networked outreach, typically with limited immediate impact.

	Specific Group Affected	Diffuse Group Affected
Precise Origin	High	Medium
Vague Origin	Medium	Low

TABLE 5: MOBILISATION OF SOCIAL MOVEMENTS

2.4. Framing Theory

Framing theory provide important perspectives for analyzing communicative strategies. They provide a framework through which the ways social movements question prevailing narratives can be dissected, rally adherents, and create meaning. Using framing theory public views can be shaped and aligned perceptions and objectives of any actor by highlighting certain aspects of a socially constructed phenomenon while masking others. This selective presentation, in the context of social movements, involves both highlighting key elements that resonate with cultural ideals and downplaying details that might weaken the movement's message (Entman, 1993). In this way, framing works by constructing a narrative that transforms individual complaints into a collective story that validates the movement's cause.

Relatedly, researchers can track how movement leaders strategically use language to reframe issues, evoke strong emotional responses, and mobilize public support by analyzing speeches, writings, and media depictions. In the context of environmental and transitional justice, activists often craft compelling narratives that connect historical injustices with current environmental degradation, thus calling for accountability and reparations (Snow & Benford, 1988).

By integrating the concepts of highlighting and masking, framing theory illuminates the dual process by

which actors both reveal and conceal aspects of their claims to manipulate public discourse. This process is essential for understanding how movements effectively direct attention toward specific grievances and policy recommendations while obscuring alternative interpretations that might undermine their position. Thus, it offers a solid toolset for comprehending social movement rhetorical tactics. These methods shed light on the dynamic process through which movements affect public opinion, influence policy debates, and negotiate the meanings attached to complex social issues. For scholars aiming to document the intricate interplay between language, power, and collective action in modern social movements, this dual analytical approach is indispensable.

Dimension	Definition	Examples/Indicators
Highlighting	Emphasis on key elements that support the movement’s narrative.	Use of emotional language; repeated references to historical injustices; focus on negative impacts of industrial pollution.
Masking	Downplaying or omitting details that might weaken the movement's claims.	Neglecting to mention potential economic benefits; omission of counter-narratives.
Narrative Construction	Process of turning individual issues into a coherent collective story.	Campaign slogans; storytelling in speeches and media that link past grievances with current demands for reparations.

TABLE 6: DIMENSIONS OF FRAMING THEORY

2.5. Concluding Remarks

The intersection between environmental and transitional justice theories, social movements, as well as framing theory offers comprehensive framework for analyzing how social movements address past ecological harm. Environmental justice theory highlights that environmental harm is a form of social injustice, which disproportionately affects marginalized communities (Pellow, 2000; Schlosberg, 2007). This view helps in assessing transitional justice demands through the significance of recognition, reparation, and institutional reform. Transitional justice theory offers mechanisms like truth commissions, reparations, and legal reforms to address past environmental harms and weigh justice claims in various contexts (Teitel, 2000; Hayner, 2011). Social movement theory also offers movement strength and organizational tools such as resource mobilization, political opportunity structures, and collective identity (McAdam, Tarrow, & Tilly, 2001; Tarrow, 2011). Framing theory illustrates that movements build public narratives from some sets of justice goals and downplay others, hence influencing opinion and policy (Entman, 1993; Snow & Benford, 1988). Together, they offer a range of critical analysis on how movements mobilize narratives and demand ecological justice. This approach offers an advanced understanding of both transitional justice content and collective action dynamics.

3 Methodology

3.1. Introduction

The following section will outline the research design of the thesis based on the previously established subquestions and elaborate on their contribution to the overarching analysis. Further, it will delve into the case selection of both counties and social movements, the data collection methods and parameters, the data analysis strategy, the operationalisation of the relevant variables including the coding scheme, and lastly an discussion about the thesis' validity and reliability.

3.2. Research Design

This study adopts a qualitative, comparative case study design focuses on framing analysis to explore how social movements across European regions mobilize narratives of environmental and transitional justice. There are four subquestions that inform the research design, and they are each responded to through systematic document content analysis and qualitative coding.

The first subquestion—"What specific objectives, demands, and visions for transitional justice are articulated by these social movements in their environmental justice mobilizations?"—is addressed using framing analysis. By applying deductive coding based on established framing elements (problem definition, causal interpretation, moral evaluation, and treatment recommendations), this study will analyze policy documents, press releases, and advocacy literature. Entman's (1993) work on framing underlines the importance of how messages are constructed, and this framework guides the coding process to identify recurring narratives and frames related to transitional justice.

For the second subquestion—"How do local histories of ecological damage and experiences of transitional injustice shape the way social movements frame their calls for acknowledgment and reparations?"—a comparative discourse analysis will be conducted. This will involve examining regional historical documents and contextual literature to trace how local environmental legacies influence movement narratives. Snow and Benford (1988) suggest that the resonance of frames is context-dependent, which is central to this analysis.

Finally, the third subquestion—"What strategic variations, such as discursive approaches, mobilization tactics, and coalition-building efforts, can be observed in the pursuit of reparative measures among these movements across different regional contexts?"—will be explored through a multi-layered coding scheme that captures both discursive strategies and organizational tactics. This will be supported by qualitative data analysis software (e.g., AtlasTi) to enable systematic cross-case comparison. Tarrow (2011) points out the conflict between internal approach and external opportunities, a theme on which the differences observed will be explained.

Comparative case study is the research design employed within this study to examine how transitional justice frameworks can be applied to environmental issues. Cases were purposefully chosen based on three factors: rich documentation, conflict intensity, and relevance to transitional justice debates. Other constraints meant that choices must involve nations with high-profile environmental conflicts and active civil society

engagement. Germany and Spain were selected inasmuch as both have experienced intense political battles over water management and mining and produced voluminous written materials by a range of actors.

Each case was required to have substantial textual evidence such as policy documents, media reports, NGO publications, and citizen petitions, which are essential for a thorough discourse analysis (Davies & Neumann, 2017). This criterion ensures that the selected cases provide enough material for analyzing the interplay between environmental harm and demands for accountability.

The selected disputes are high-stakes environmental conflicts that have led to public protests, legal action, and policy debate. The cases pose serious social questions where the destruction of the environment has directly affected livelihoods in communities. The contentiousness of the disputes enables analysis of the ways in which actors mobilize towards environmental transitional justice (Smith & Gonzalez, 2018).

Following recent academic arguments (Martínez, 2020), cases were chosen where communities seek redress through mechanisms analogous to transitional justice, such as truth-telling, reparations, and institutional reforms. The objective is to extend transitional justice beyond traditional post-conflict settings into the realm of environmental remediation.

Germany and Spain have been selected since they offer contrasting but equally rich contexts for environmental disputes in Europe. Germany's highly industrialized economy and history of mass mine tensions offer lessons in the ecological costs of energy transitions. Spain's water over-extraction and mining tragedy in ecologically sensitive areas both highlight food sustainability issues as well as protection of cultural heritage. Both Germany and the Netherlands have healthy civil societies and robust traditions of active environmental engagement, making them ideal places to study actor-driven narratives and accountability measures.

Case Overviews

Germany

Record rain in mid-July 2021 triggered catastrophic flooding in Rhineland-Palatinate and North Rhine-Westphalia, and the Ahr River burst its banks, claiming over 180 lives. Failed flood defenses and inadequate early warning systems were the first to be blamed for the lives lost and €30 billion damage, although public debate was also dominated by a starring role for climate change (The Guardian, 2022). This example shows a case of government origin (infrastructure failure plus climatic factors) and particular group affected (people of the Ahr Valley), with medium mobilization potential: citizen movements and local NGOs successfully framed the disaster as government ineptitude and achieved moderate policy changes.

Since 2012, the planned expansion of RWE's Hambach open-pit lignite mine has threatened one of Europe's oldest forests, mobilizing direct-action protestors and environmental NGOs like BUND and Greenpeace. Here, blame is precisely identifiable (RWE) and harm is concentrated on a specific ecological site and local communities, yielding high mobilization potential. Protest strategies ranged from tree-house occupations to large-scale demonstrations, illustrating robust resource mobilization and framing dynamics consistent with social movement theory (McAdam, Tarrow, & Tilly, 2001).

Spain

The Doñana National Park in southern Spain, a UNESCO World Heritage site, faces severe ecological threats due to illegal water extraction, intensive agriculture, and climate change. Local farmers, particularly those cultivating strawberries for export, have overexploited groundwater resources, endangering wetlands vital for biodiversity (UNESCO, n.d.). The combination between these unsustainable farming practices and weak enforcement and political inaction from the side of the government create a fairly dispersed origin between multiple actors, however the group affected is precise and concentrated to the National Park and surrounding ecosystem, thus, creating medium mobilization potential

The proposed Retortillo uranium mine in Salamanca elicited persistent criticism from local councils, environmental NGOs (such as Ecologistas en Acción), and transnational associations after Spain's Nuclear Safety Council raised alarm about safety (Reuters, 2024). The source is definite (Berkeley Energia) and the damage vague (potential cross-border contamination), producing middle mobilization potential. Activists have utilized strategic litigation, EU complaints, and transnational advocacy networks to frame the mine as a public health risk and a risk to biodiversity in keeping with framing theory's direction towards highlighting environmental risk and hiding economic counterarguments (Entman, 1993; Snow & Benford, 1988).

Organisations

Each selected case exemplifies a distinct form of localized environmental harm—driven by identifiable actors—that has catalyzed robust civil-society demands framed in both environmental and transitional-justice terms (McCauley & Heffron, 2018; Stevis, Felli, & Gerlak, 2019). We intentionally included organizations across three categories: (1) Grassroots/Citizen Initiatives, such as Ende Gelände and Fridays for Future, because they originate from and directly represent communities most affected and deploy participatory or civil-disobedience tactics (Ende Gelände, 2023; Fridays for Future Deutschland, 2021); (2) Established Environmental NGOs, including BUND, NABU, Greenpeace, WWF España, SEO/BirdLife, Ecologistas en Acción, and Amigos de la Tierra, which bring technical expertise, institutional networks, and policy leverage to advocacy (Greenpeace Deutschland, 2023; NABU, 2023; WWF España, 2023; SEO/BirdLife, 2024; Ecologistas en Acción, 2016; Amigos de la Tierra, 2018); and (3) Specialized Research/Justice Observatories and Agencies—for example, the Observatorio de Justicia Energética, Fundación Nueva Cultura del Agua, and Amnesty International Deutschland—which articulate legal accountability, truth-seeking mechanisms, and rights-based frameworks (Observatorio de Justicia Energética, 2021; FNCA, 2023; Amnesty International Deutschland, 2021).

By combining at least one grassroots initiative with one larger NGO in each case, we capture the synergy between bottom-up pressure and formal policy engagement. For instance, in Hambach Forest, civil-disobedience blockades by Ende Gelände intersect with BUND's technical policy briefs, revealing both radical and negotiated transitional-justice frames (Ende Gelände, 2017; BUND & DIW, 2020). In the Ahr Valley, Fridays for Future's framing of the floods as a climate-justice crisis complements WWF Deutschland's call for institutional reforms, illustrating how youth-led and mainstream NGOs co-construct justice narratives (Fridays for Future Deutschland, 2021; WWF Deutschland, 2021). Likewise, Doñana's hydrological justice claims by Ecologistas en Acción and position papers from WWF España demonstrate how grassroots mobilization and expert analysis combine to demand both immediate restoration and

systemic governance changes (Ecologistas en Acción, 2016; WWF España, 2016). Finally, in Retortillo, Plataforma Salvemos Retortillo’s local referendum campaigns work alongside Ecologistas en Acción’s legal objections and Observatorio de Justicia Energética’s energy-justice analysis to shape an integrated transitional-justice agenda (Plataforma Salvemos Retortillo, 2019; Ecologistas en Acción, 2014; Observatorio de Justicia Energética, 2021).

This selection ensures representation of affected communities, inclusion of expert knowledge, and articulation of accountability mechanisms—thereby illustrating how movements articulate transitional-justice objectives (e.g., reparations, truth commissions, institutional reform) alongside environmental-justice demands. Ultimately, these cases collectively demonstrate that grassroots pressure and institutional advocacy coalesce to generate robust justice-oriented frameworks for addressing ecological harm (Teitel, 2000; Hayner, 2011).

Case	Issue	Grassroots/Citizen Initiatives	Established NGOs	Research/Justice Observatories & Agencies
Hambach Forest (Germany)	RWE lignite mining and forest clearing	Ende Gelände (civil disobedience movement; 2017) Fridays for Future (youth climate strikers; 2021) Extinction Rebellion (direct-action group; 2018)	BUND (Friends of the Earth Germany; conservation NGO) NABU (nature-conservation NGO; 2023) Greenpeace Deutschland (2023)	–
Ahr Valley Floods (Germany)	Flooding and climate-related infrastructure failure (2021)	Fridays for Future Deutschland (2021) Extinction Rebellion Deutschland (2021)	BUND (2021) WWF Deutschland (2021) Greenpeace Deutschland (2023)	Amnesty International Deutschland (2021)
Doñana Aquifer (Spain)	Aquifer over-extraction for agriculture	Ecologistas en Acción (2016) Plataforma Salvemos Doñana (citizen petition initiative; 2019)	WWF España (2016) SEO/BirdLife (2024) Greenpeace España (2023) Amigos de la Tierra (2018)	Fundación Nueva Cultura del Agua (2023)
Retortillo Mine (Spain)	Proposed open-pit uranium mining	Plataforma Salvemos Retortillo (2019) Last Generation España (direct-action group; emerging)	Ecologistas en Acción (2014) Greenpeace España (2021) SEO/BirdLife (2024)	Observatorio de Justicia Energética (2021) Amigos de la Tierra (2018)

TABLE 7: OVERVIEW OF MOVEMENTS

3.3. Data Collection

Data collection in this study employs a systematic document analysis approach that leverages archival records, policy texts, media reports, and organizational publications. This approach is specifically tailored to address three key subquestions.

For the first subquestion—exploring what specific objectives, demands, and visions for transitional justice are articulated by social movements in their environmental justice mobilizations—the necessary data include official statements, manifestos, policy briefs, and press releases. These documents will be sourced from organizational websites, digital archives, and reputable news outlets using purposive sampling to select materials that explicitly outline the movements’ goals and visions.

For the second subquestion—examining how local histories of ecological damage and experiences of transitional injustice shape the framing of calls for acknowledgment and reparations—data will be gathered from historical records, environmental impact assessments, community testimonies, and previous case studies. These sources will be primarily obtained from government archives, academic publications, and reports by community organizations. Criterion-based sampling will be applied, focusing on regions with documented cases of ecological harm and social injustice.

The third subquestion investigates what strategic variations, such as discursive approaches, mobilization tactics, and coalition-building efforts, can be observed across different regional contexts. For this purpose, the study will collect will use largely the same sources as the first subquestion in addition to sources such as campaign materials and event documentation from platforms such as social media networks, organizational newsletters, and news reports. A maximum variation sampling strategy will be employed to ensure a diverse range of strategies is captured.

In addition to these targeted data sets, the study will employ systematic content analysis to identify recurring themes and perform content analysis to quantify language use and messaging strategies. Throughout the process, reflexive journaling will be maintained to document methodological decisions, emerging insights, and potential biases. This comprehensive data collection strategy is designed to provide a robust empirical basis for examining environmental and transitional justice narratives within social movements.

Subquestion	Data Needed	Sources	Sampling Strategy
SQ1	Official statements, manifestos, policy briefs, press releases	Organizational websites, digital archives, news outlets	Purposive sampling
SQ2	Historical records, environmental impact assessments, testimonies, case studies	Government archives, academic publications, community reports	Criterion-based sampling
SQ3	Campaign materials, social media content, coalition agreements, event documentation	Social media, newsletters, partnership announcements	Maximum variation sampling

TABLE 8: DATA COLLECTION OVERVIEW

3.4. Data Analysis

This study employs a multi-layered qualitative data analysis strategy that integrates content and framing analysis to unravel the common themes and frames used by social movements. This thesis employs qualitative content analysis to systematically examine movement statements, press releases, and reports across the four cases. Content analysis is particularly suited for this study as it allows for tracing how justice

is discursively framed and operationalized in collective claims. The process begins with a thorough reading and familiarization phase of the collected documents, followed by the generation of initial codes. Using a dual coding approach, the analysis combines deductive coding—where pre-established framing elements guide the analysis—with inductive coding to capture emergent themes (Braun & Clarke, 2006). This ensures that the analysis remains rooted in established theory while also remaining open to new insights.

Qualitative data analysis software (e.g., AtlasTi) will be utilized to systematically manage and organize the data, facilitating the coding process and the identification of patterns across diverse textual sources (Bazeley, 2013). In the initial phase, deductive codes derived from environmental and transitional justice frameworks are applied, a process informed by the theoretical work of Entman (1993) and Snow and Benford (1988). This structured coding provides a consistent basis for comparing how different cases frame issues of ecological damage and justice.

Subsequently, an inductive coding phase allows unexpected themes to surface from the data, enhancing the richness of the analysis. This dual strategy—merging theory-driven codes with emergent themes—enables a comprehensive exploration of the nuanced ways in which social movements articulate their claims. The analysis then moves to thematic synthesis, where patterns, relationships, and divergences are identified across cases. Comparative analysis is critical here, as it helps to illuminate how regional differences influence narrative constructions (Yin, 2014).

3.5. Operationalisation

Operationalisation in this study involves translating abstract theoretical constructs into measurable indicators, enabling empirical assessment of how social movements mobilise narratives of environmental and transitional justice. Central constructs include environmental justice and transitional justice, which are operationalised through framing elements such as problem definition, causal interpretation, moral evaluation, and treatment recommendations. These framing elements are defined as follows: “problem definition” involves the identification of environmental degradation as a systemic injustice; “causal interpretation” pertains to the attribution of responsibility to particular actors or policies; “moral evaluation” captures the emotive language that highlights perceived injustices; and “treatment recommendations” reflect the prescribed remedial actions or policy changes. This approach aligns with established framing analysis practices that emphasize the importance of these components in shaping collective action (Entman, 1993).

To operationalise these constructs, a detailed coding scheme is developed. Deductive coding is applied using pre-established framing elements derived from theoretical literature, while inductive coding allows for the emergence of context-specific themes. The coding scheme is iteratively refined through pilot tests and inter-coder reliability checks, ensuring that the indicators consistently capture the intended constructs (Miles & Huberman, 1994). For instance, recurring phrases that denote environmental degradation and calls for redress are coded under “problem definition” and “treatment recommendations,” respectively, providing a systematic means to quantify narrative elements across various documents.

Additionally, organizational variables are operationalised to enable comparative analysis of different social

movement actors. Key indicators include organizational size, scope (local, national, transnational), and historical engagement in activism. These variables are extracted from archival records, websites, and media reports, allowing for categorisation based on clearly defined criteria (Yin, 2014). This multi-dimensional operationalisation strategy facilitates the examination of how variations in organizational profiles relate to differences in narrative framing.

The integration of both deductive and inductive coding methods not only enhances the validity of the operationalisation process but also ensures that the analytical framework remains flexible enough to accommodate new insights emerging from the data. This systematic approach to operationalisation strengthens the study’s overall credibility by making theoretical constructs transparent and measurable.

Theory	Theme	Code	Sub-code / Details
Transitional Justice	Articulated Goals and Demands	Objectives & Demands	<ul style="list-style-type: none"> - Reparations (e.g., financial compensation, land restitution) - Truth-Seeking Initiatives (e.g., truth commissions, historical investigations) - Institutional Reforms (e.g., legal/policy changes) - Non-Material Acknowledgment (e.g., official apologies, memorials) - Future-Oriented Visions (e.g., sustainable
Environmental Justice	Unequal Environmental Distribution	Distributive Justice	<ul style="list-style-type: none"> - Indicators of exposure to environmental hazards - Access to environmental resources (e.g.,
		Procedural Justice	<ul style="list-style-type: none"> - Community participation in decision-making
		Recognition Justice	<ul style="list-style-type: none"> - Acknowledgment of cultural and social identities - Visibility of marginalized voices in
Social Movement	Mobilization and Organizational	Resource Mobilization	<ul style="list-style-type: none"> - Fundraising and volunteer recruitment - Network building and capacity building
		Political Opportunity	<ul style="list-style-type: none"> - Identification of favorable policy windows - Analysis of institutional openness vs.
		Collective Identity	<ul style="list-style-type: none"> - Common grievances and unified symbols - Use of slogans and shared narratives
Framing Theory	Narrative Construction	Highlighting	<ul style="list-style-type: none"> - Emphasis on key issues (diagnostic framing) - Presentation of historical injustices and
		Masking	<ul style="list-style-type: none"> - Downplaying or omitting conflicting details - Selective emphasis to strengthen the

TABLE 9: CODING SCHEME

3.6. Validity and Reliability

To enhance validity, triangulation is utilized by sourcing data from diverse materials such as policy documents, media reports, and organizational publications. This approach allows for cross-verification of findings, thereby reducing potential biases and strengthening the study's conclusions (Yin, 2014). Additionally, maintaining an audit trail is integral to the research process. This involves systematically documenting research activities, decisions, and reflections, providing transparency and enabling others to follow the research progression. Reliability is addressed by establishing clear and consistent coding procedures. A detailed codebook is developed, outlining definitions and application guidelines for each code, ensuring consistency in data analysis. Regular reviews of coding decisions are conducted to maintain uniformity and address any ambiguities. The use of both deductive and inductive coding in framing analysis allows for the systematic examination of narrative elements while remaining open to unexpected themes, thereby ensuring content validity (Miles & Huberman, 1994).

3.7. Concluding Remarks

The integrated methodological framework offers a robust approach to exploring the complex interplay between historical ecological harm and social movement mobilization. By combining rigorous data collection, systematic coding, and triangulation, the study ensures high validity and reliability. The iterative process of refining codes and themes provides nuanced insights into how environmental and transitional justice narratives are constructed. Overall, this approach not only addresses the research questions effectively but also contributes valuable insights to the broader field of narrative analysis in contentious political contexts.

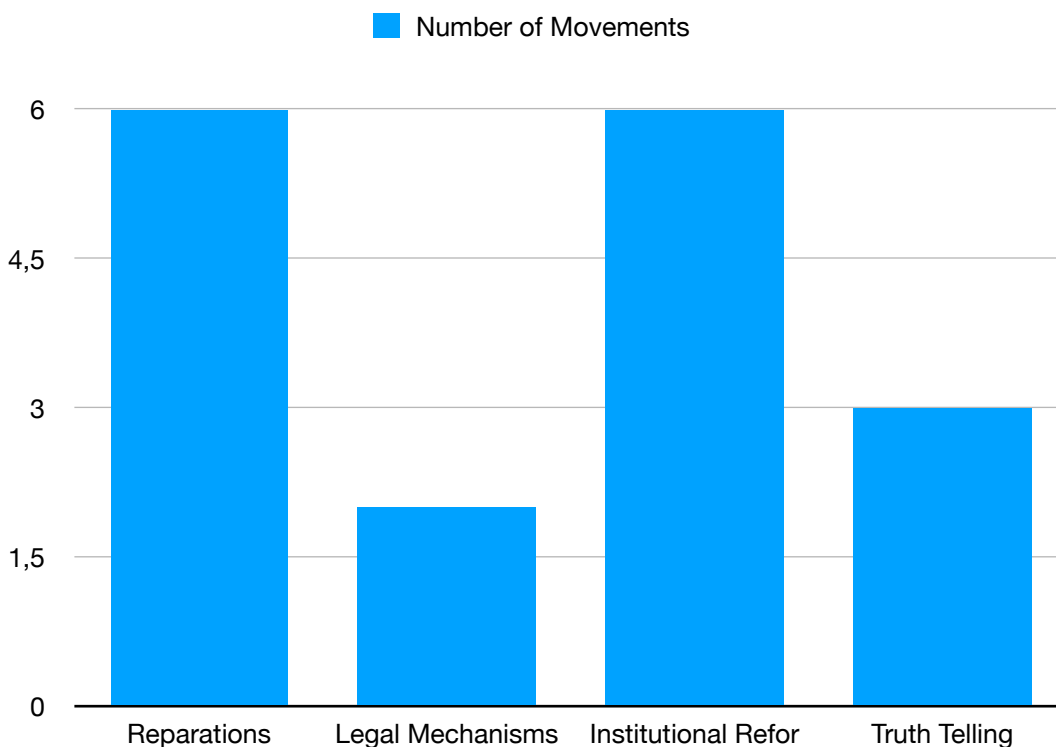
4 Analysis

4.1. Subquestion 1

Introduction

The following chapter will delve into the analysis of the first sub-question: *What specific objectives, demands, and visions for transitional justice are articulated by social movements in their environmental justice mobilizations?* Therefore, this section will examine four European cases: RWE’s Hambach Forest lignite operations, the catastrophic 2021 Ahr Valley floods, Doñana’s aquifer over-extraction, and the planned uranium mine at Retortillo. For each case, core texts were gathered - press releases, manifestos, position papers produced by movement actors (e.g., BUND, Ecologistas en Acción) as well as influential external analyses (e.g., Amnesty International, Observatorio de Justicia Energética). Using the established coding scheme with the focus specifically on the treatment-recommendations frame to map out the movements’ transitional-justice objectives. These include reparative measures (e.g. compensation or restoration), legal mechanisms (e.g. leading of lawsuits or enforcement of past legal decisions), institutional reforms, and methods of truth telling. (e.g. calls for transparency or participatory decision-making). By systematically cataloguing which actors invoke which demands, and by quantifying their prevalence, one can reveal both the diversity and the common ground of activist calls for transitional justice. This comparative lens not only uncovers each movement’s unique priorities but also highlights shared aspirations for ecological restoration, social equity, and long-term accountability.

Ahr Valley Floods



GRAPH 1: AHR VALLEY

Across the Ahr Valley mobilizations, reparative justice centers on both immediate relief and long-term resilience. Fridays for Future champions support for local communities through strengthened emission-reduction efforts, preventative measures to avoid repeating flood harms, and a shift from rapid economic growth toward sustainable reconstruction aid (Fridays for Future, 2021; Fridays for Future, 2021). Letzte Generation demands broad safety measures against climate catastrophe—such as an affordable public-transport ticket and motorway speed limits—to protect vulnerable populations (Letzte Generation, 2022). BUND emphasizes ecological flood protection and nature-conscious rebuilding: creating preventative flood zones, restoring sponge-like ground functions, granting rivers more space, halting soil sealing, and reforming settlement policy based on updated risk assessments, alongside a phase-out of fossil energy, higher CO₂ pricing, per-capita payouts, and sustainable water use (BUND, 2022; BUND, 2022; BUND, 2021; BUND, 2021). WWF echoes calls for dyke relocation and river renaturation to bolster natural flood defenses (WWF, 2024), while Greenpeace focuses on restoring habitats damaged by plastics and microplastics, implementing early-warning systems, and cleaning nature reserves (Weiland, 2023; Weiland, 2022). Amnesty International underscores the need for technical and financial support tailored to poorer, precarious communities, ensuring no one is left behind (Amnesty International Deutschland, 2021).

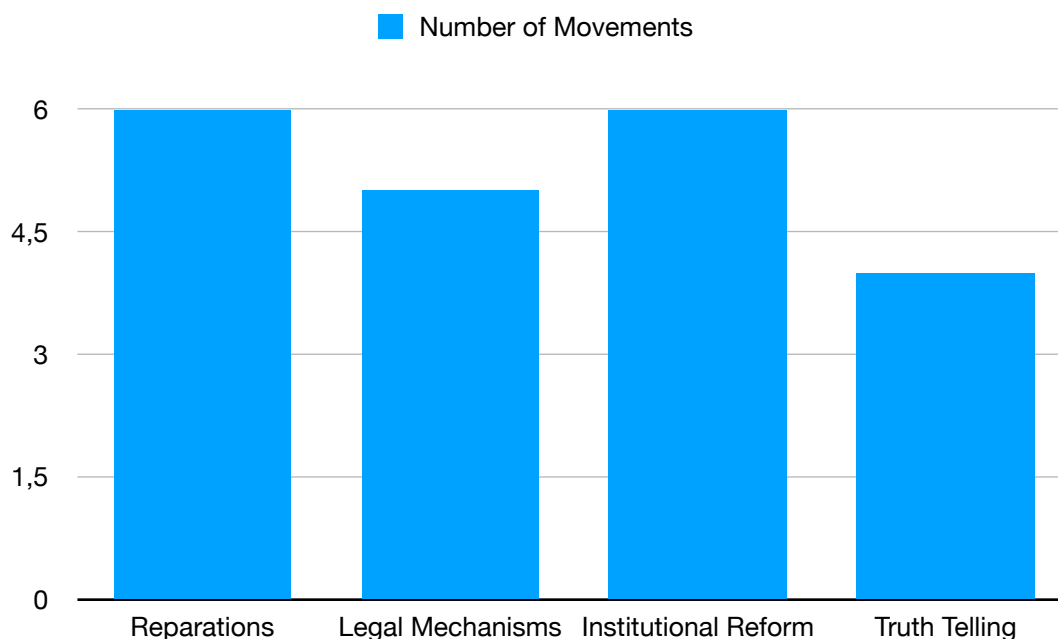
Although neither group brings fresh court actions after the Ahr Valley floods, they ground their demands in existing legal precedents. BUND insists on strict compliance with the German Water Resources Act to regulate flood-prone areas, compelling authorities to enforce ecological flood-protection measures (BUND, 2021). Amnesty International recalls the 2019 German Constitutional Court ruling that declared key provisions of the Climate Protection Act unconstitutional, leveraging that precedent to stress the state's duty to strengthen climate legislation and protect vulnerable populations (Amnesty International Deutschland, 2021). By invoking these statutes and judgments, both movements highlight gaps between legal mandates and implementation, framing robust enforcement of environmental laws as essential for flood resilience and climate justice

In the Ahr Valley context, social movements push for deep institutional reforms to strengthen climate resilience and disaster response. Fridays for Future demands a complete overhaul of climate politics, replacing empty promises with genuine acknowledgment of community needs; it calls for transparent catastrophe preparedness, clear emergency-service guidelines, and upgraded warning systems to ensure timely crisis management (Fridays for Future, 2021; Fridays for Future, 2021). Letzte Generation highlights institutional failure in structurally addressing the climate crisis, linking the repression of protesters to broader political dysfunction (Letzte Generation, 2022). BUND criticizes political stubbornness and infrastructure unpreparedness, urging restoration of natural rivers and floodplains, an end to ground sealing, consistent soil protection, and climate-adapted land-use policies; it advocates federal and state frameworks that close gaps in catastrophe prevention, cut unsustainable subsidies, and embed civil-protection mandates (BUND, 2022; BUND, 2022; BUND, 2021; BUND, 2021). WWF emphasizes the political will for climate-adaptation and land-use reform (WWF, 2024), while Greenpeace urges a switch to renewable-energy model regions and faster policymaking on climate action (Weiland, 2023; Weiland, 2022). Amnesty International calls for more

general radical, rights-aligned transformations, with early inclusion of coal-dependent workers in the transition to green jobs (Amnesty International Deutschland, 2021).

In the Ahr Valley, truth-telling centers on open communication and citizen education. BUND (2021) champions transparent risk communication and honest disclosure of preparedness measures, ensuring communities understand flood hazards and resilience strategies. Through public education campaigns and clear information on early-warning systems, BUND builds trust and empowers residents to engage in prevention efforts (BUND, 2021). Greenpeace complements this by proposing fostering participatory dialogue, inviting citizens into renewable-energy planning and climate action decisions. Their pedagogical approach demystifies green technologies, using transparency to overcome skepticism and motivate grassroots support (Weiland, 2022). Together, these efforts transform truth-telling into a foundation for collective accountability, informed decision-making, and sustainable community resilience.

Doñana National Park



GRAPH 2: DOÑANA NATIONAL PARK

Across Doñana National Park mobilizations, reparative justice focuses on restoring hydrological balance and safeguarding biodiversity. SEO BirdLife urges declaration of the coastal lagoons as “in danger,” strict regulation of the aquifer, elimination of illegal wells and eucalyptus plantations, and support for sustainable farming that balances farmer livelihoods with habitat protection (SEO BirdLife, n.d.; BirdLife International, 2023; BirdLife International, 2023). Ecologistas en Acción demands halting the Western Marshes project, rolling back irrigated-agriculture expansion, recovering aquifer levels, and restoring wetlands (Ecologistas en Acción, 2016; Ecologistas en Acción, 2023). Plataforma Salvemos Doñana calls for stopping new gas-

injection surveys, reducing pollution and chemical use, curbing irrigation expansion, and empowering local knowledge (Europa Press, 2025; Boza, 2023). WWF insists on comprehensive water-resource management, monitoring, abolition of illegal irrigation, technical and financial support for ecological restoration, and closure of illicit farms under its “strawberry plan” (Fuentelsaz, et al., 2025; WWF, 2023). Greenpeace rejects any mining, champions wetland and groundwater protection, and demands illegal irrigation be stopped to protect nature and livelihoods (Greenpeace, 2025; Saldaña, 2023). Fundación Nueva Cultura del Agua highlights groundwater protection, prioritizing reductions by the largest farms, restoring ecological functionality, and ensuring citizen well-being (del Moral, et al., 2023).

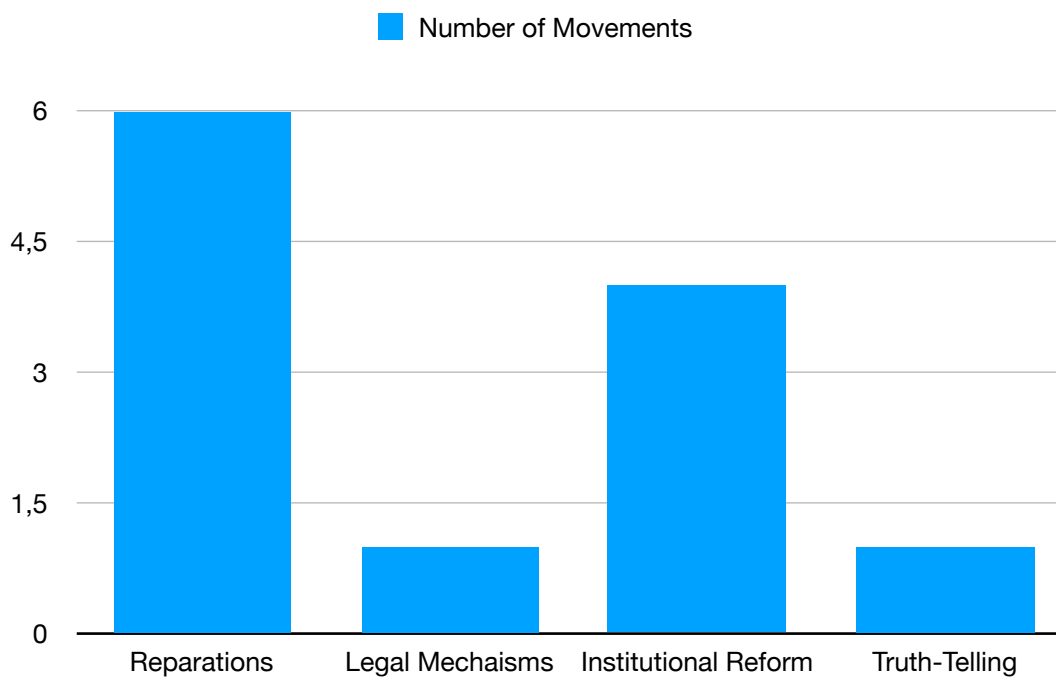
Although no new lawsuits emerge, several groups invoke existing rulings to bolster their legal arguments. SEO BirdLife warns that planned developments breach community environmental regulations, risking multi-million-dollar fines and undermining regional sustainability (SEO BirdLife, n.d.). Ecologistas en Acción highlights EU law violations in the Marismas project’s flawed Environmental Impact Statements (Ecologistas en Acción, 2016). Plataforma Salvemos Doñana cites an EU judgment affirming that Doñana’s natural values must be protected (Boza, 2023). WWF recalls the June 2021 ECJ condemnation of Spain for excessive groundwater extraction following its own lawsuit (WWF, 2023). Greenpeace points to potential EU sanctions as leverage against illicit irrigation and mining threats (Saldaña, 2023). Together, these precedents underscore the gap between legal mandates and enforcement, framing robust compliance as essential for Doñana’s future.

Doñana’s institutional reform agenda centers on overhauling governance structures for long-term ecological and social resilience. SEO BirdLife urges a comprehensive planning and restructuring of the agricultural sector surrounding the park, backed by a legally binding Natura 2000 Management Plan that mandates habitat and species monitoring, aligned with EU directives; it also calls for cooperative governance to end the region’s historic oscillation between protection and destruction, privileging scientific assessments over economic ideology (SEO BirdLife, n.d.; BirdLife International, 2023; BirdLife International, 2023). Ecologistas en Acción denounces political corruption and corporate lobbying, outdated risk-assessment frameworks, and an unsustainable economic model—advocating amnesty for smallholders and a reformed agricultural paradigm (Ecologistas en Acción, 2016; Ecologistas en Acción, 2023). Plataforma Salvemos Doñana highlights gaps in risk-assessment procedures and pushes for labor alternatives that integrate environmental regeneration rather than perpetuate exploitative practices (Europa Press, 2025; Boza, 2023). WWF promotes better agricultural organization, public forest management, and ecological connectivity, warning against short-term profit- and vote-driven policymaking (Fuentelsaz, et al., 2025; WWF, 2023). Greenpeace demands a zero-dumping mining policy and an end to government pardons for illegal irrigation and climate denial (Greenpeace, 2025; Saldaña, 2023). Fundación Nueva Cultura del Agua calls for streamlined water-use authorizations and legal support for small farms to counter monopolistic development (del Moral, et al., 2023).

In Doñana, truth-telling hinges on transparent, participatory communication. Ecologistas en Acción commits to educating citizens about Doñana’s ecological value and openly publishes annual water-extraction plans to ensure compliance (Ecologistas en Acción, 2016; Ecologistas en Acción, 2023). Plataforma Salvemos

Doñana organizes grassroots participation actions, inviting locals to co-produce conservation initiatives (Boza, 2023). WWF’s “strawberry plan” brings all affected stakeholders into its design, fostering shared ownership of sustainable agriculture measures (WWF, 2023). Fundación Nueva Cultura del Agua demands that processes be transparent and publicly participatory, convening the Andalusian Social Water Roundtable—a committee of experts and community representatives—to steer a new water-culture paradigm (del Moral, et al., 2023). Together, these efforts transform truth-telling into a foundation for collective accountability and enduring protection of Doñana’s natural heritage.

Hambach Forest Mining



GRAPH 3: HAMBACH FOREST

Across the Hambach mobilizations, reparations take the form of demands for both ending extraction and restoring ecological and social well-being. Ende Gelände calls not only for an immediate coal phase-out but also for protection of forest commons, biodiversity safeguards, and reparative measures for communities harmed locally and in the Global South—compensating for livelihood losses, health impacts, relocations, and expropriations (Ende Gelände, 2018.; Schröder, 2018). BUND pairs a lignite exit with financial reimbursement for affected villages and prioritised investment in renewables, while insisting on habitat protections under European law—designating sanctuaries for rare species and establishing Natura 2000 wilderness zones (BUND, 2020; BUND, n.d.). Fridays for Future stresses forest preservation before irreversible ecosystem damage, safeguarding water provision, halting mining, and preventing community displacement (Graham-Harrison, 2019; Fridays for Future, 2020). Extinction Rebellion highlights the forest’s role in biodiversity and carbon storage, demanding its protection (Extinction Rebellion Deutschland, n.d.). NABU likewise demands a mining moratorium, forest and village protection, and compliance with national

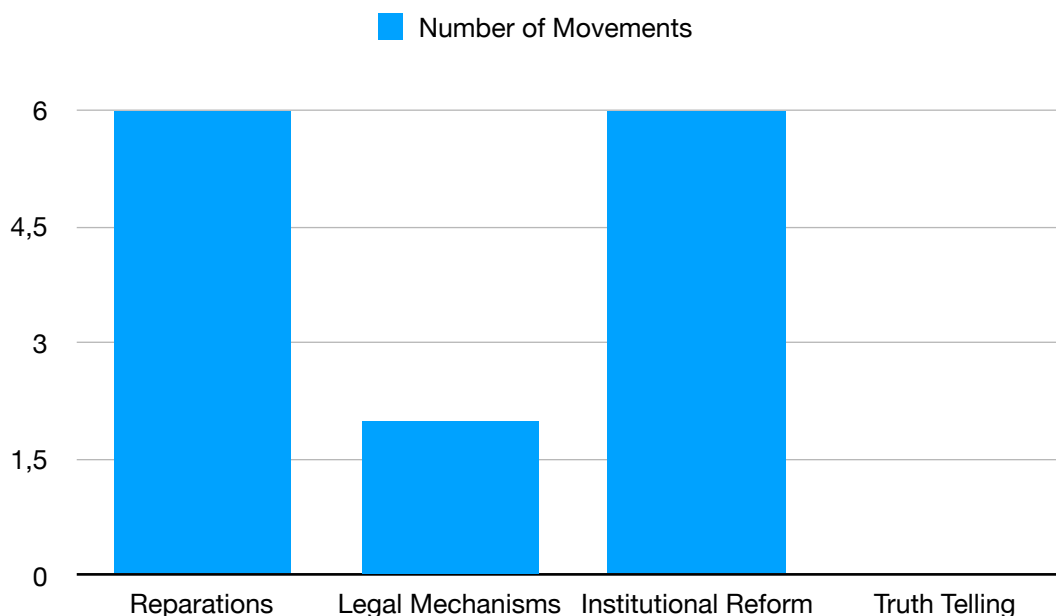
and international climate commitments (NABU, n.d.; NABU, 2018). Greenpeace adds calls for a thermal buffer zone, stopping mining, and shielding local communities from coal's harms (Kaiser, 2018; Sadik, 2019).

Only BUND employs formal legal mechanisms at Hambach, challenging RWE's failures to comply with European habitat-protection laws. In 2017–18, BUND's lawsuit invoked the Umweltverträglichkeitsprüfung to halt tree-clearing after RWE neglected to notify authorities of significant Bechstein's bat sightings. More recently, BUND accused the state of court deception and demanded full clarification of procedural breaches (BUND, n.d.; BUND, 2025). By forcing a judgment for a clearing stop, BUND demonstrated how strategic litigation can enforce rare-species safeguards and procedural transparency—an approach unmatched by Ende Gelände, Fridays for Future, X-Tinction Rebellion, NABU, or Greenpeace, which rely on protests rather than courts.

Ende Gelände rejects the extractive logic underpinning Hambach's coal economy, calling for an anti-capitalist, anti-growth restructuring that democratizes economic decision-making and places ecological and social well-being at its core (Ende Gelände, 2018; Schröder, 2018). Extinction Rebellion exposes how political institutions prioritize corporate interests and sanction the repression of activists, demanding transparent accountability for state-sanctioned violence against environmental defenders (Extinction Rebellion Deutschland, n.d.). NABU critiques the collusion between government and industry—highlighting how police forces are deployed to protect private mining operations rather than community interests—and urges reforms to realign policy with public and ecological health (NABU, 2018). Greenpeace decries the federal “coal compromise” as a devastating act of political inaction, calling for systemic overhaul to prevent future compromises that betray both climate commitments and social justice principles (Sadik, 2019). Together, these movements advocate institutional reforms that dismantle extractive power structures, embed democratic accountability, and safeguard both people and ecosystems from repeat injustices.

BUND approaches truth-telling by proposing an institutionalizing community dialogue as a platform for transparency and shared learning. Through structured forums and public consultations, it can bring together local residents, experts, and decision-makers to surface firsthand accounts of Hambach's environmental and social impacts. These dialogues would not only document the lived experiences of those affected—ensuring their voices inform policymaking—but also challenge official narratives by exposing procedural failures in impact assessments and enforcement. By fostering open communication channels, BUND's truth-telling mechanism approach builds collective memory, counters misinformation, and lays a participatory foundation for accountability and more responsive environmental governance in post-coal transitions (BUND, 2020).

Retortillo Uranium Mining



GRAPH 4: RETORTILLO URANIUM MINES

Across the Retortillo uranium debates, reparative justice focuses on undoing environmental harm and safeguarding communities. WWF demands comprehensive forest restoration and remediation of radioactive pollution to protect habitats and human health, emphasizing long-term care for degraded landscapes and species recovery (WWF 1; WWF 2; WWF 4). Ecologistas en Acción calls for forced land expropriation where mining threatens protected areas, alongside water and forest protection, health safeguards for people and wildlife, and a full ecological transition that bans radioactive mineral exploitation (EEA 1; EEA 2). SEO BirdLife highlights the need to shield workers and residents from radiological risks by enforcing strict operational safety, emergency prevention, and corrective measures (SEO 1). Amigos de la Tierra documents pollution’s social and health impacts—including risks to endemic Sardinian fish—and urges cleanup of contamination (Amigos de la Tierra 1). Greenpeace warns of radiation accidents, human-rights violations, and nuclear proliferation threats, insisting that waste be safely stored or reprocessed, facilities decontaminated, and surrounding land, air, and water restored (Greenpeace 1; Greenpeace 2). Local municipal movements demand the transfer of mining land from private hands and emphasize the imperative to reverse water-quality and habitat degradation (No a la Mina 1; No a la Mina 2).

At Retortillo, legal mechanisms are mobilized to hold both operators and regulators accountable. WWF’s complaint triggered proceedings by the Environmental Prosecutor’s Office in Madrid after the organization denounced the logging of over a thousand centenary oaks within a Natura 2000 site—habitat for protected species like the imperial eagle and black stork—and urged investigation into whether the company met its legal duty to provide compensation for ecological damages (WWF 3). Meanwhile, Ecologistas en Acción appealed the mine’s prior authorization before Spain’s National Court, challenging the classification of the facility as “first-class” radioactive infrastructure—a uranium reprocessing plant with an attached waste

warehouse—and seeking judicial review of its approval process (EEA 1). Together, these strategic actions leverage environmental and administrative law to contest both on-the-ground violations and the legal basis underpinning the mine’s operation.

Retortillo’s opponents demand sweeping institutional reforms to prevent regulatory capture and ensure alignment with Spain’s energy transition goals. WWF decries governmental negligence for allowing Berkeley Energia to advance without securing all necessary permits, flagrantly contradicting the state’s commitment to phase out nuclear power in favor of a decarbonized, 100 percent renewable system (WWF 1; WWF 2; WWF 4). Ecologistas en Acción exposes missing authorizations, corruption-tainted impact reports, and unreliable safety analyses—especially geotechnical and hydrogeological assessments—calling for rigorous, transparent review processes (EEA 1; EEA 2). SEO BirdLife documents undue pressure by Berkeley on Spain’s Nuclear Safety Council, characterizing industry tactics as undemocratic intimidation (SEO 1). Amigos de la Tierra underscores the mine’s clashes with national climate commitments and cross-border tensions with Portugal, warning that authorities have ignored serious risks from radioactive waste (Amigos de la Tierra 1). Greenpeace warns that continued reliance on nuclear risks decade-scale meltdowns and undermines economic resilience (Greenpeace 1; Greenpeace 2). Local municipal movements lament the project’s opaque planning and cite unfavorable public-utility reports. Collectively, these actors demand clear permit protocols, independent safety oversight, and genuine public participation to overhaul institutional safeguards (No a la Mina 1; No a la Mina 2).

Notably, none of the Retortillo campaigns propose dedicated truth-telling measures. While they demand remediation, legal accountability, and institutional reform, none of the documents highlight transparency forums, public inquiries, or community oral-history projects to document and publicly reconhecere the mine’s social and environmental impacts.

Concluding Remarks

These cases highlight the importance of tailoring transitional justice approaches to specific ecological contexts and harms. Across all cases, reparations and institutional reform stands out as the most consistent mechanism, indicating widespread recognition that enduring justice cannot be achieved without redress and changing how decisions are made. The absence of truth-telling mechanisms in Retortillo signals a key gap—especially in high-risk, high-conflict zones—where transparent communication and public reckoning could play vital roles. As climate impacts intensify, these cases underscore the need for an integrated transitional justice framework that balances ecological restoration, legal enforcement, and participatory governance—ensuring that environmental repair also delivers social repair, democratic legitimacy, and long-term resilience.

4.2. Subquestion 2

Introduction

Each of the four cases under examination represents a distinct form of environmental harm: climate-induced disaster, water mismanagement, fossil extraction, and radioactive risk. Yet they share common threads: ecological degradation, institutional failure, and social mobilization in response. Drawing on the four pillars of transitional justice—reparations, legal mechanisms, institutional reform, and truth-telling—the analysis explores how civil society actors adapt these mechanisms to local histories of harm. Rather than universal templates, these justice strategies are shaped by the specific forms of violence experienced. The following case narratives reveal how transitional justice is mobilized not just to repair the past, but to reshape the future of environmental governance.

Ahr Valley Floods

The Ahr Valley, located in the German state of Rhineland-Palatinate, experienced catastrophic flooding in July 2021, resulting in over 135 deaths and widespread destruction. This disaster was not only a result of extreme weather but also the culmination of years of inadequate flood-risk management, unchecked land development, and climate inaction. The valley's natural water retention capacity had been severely diminished by urbanization, soil sealing, and insufficient ecological floodplain restoration. Forest loss and river channeling further reduced the region's ability to buffer heavy rainfall. Despite repeated warnings from scientists and environmental groups, local and federal authorities failed to implement preventative measures or invest in resilient infrastructure (Ludwig, et al, 2023). The flood exposed a profound gap between knowledge and action—a hallmark of transitional injustice. Communities were left unprepared, early warning systems proved ineffective, and political leaders offered symbolic rather than systemic responses. In the aftermath, survivors faced bureaucratic delays in compensation, inadequate reconstruction frameworks, and neglect of socioeconomically vulnerable populations. Environmental justice movements identified the flood not as a singular event, but as a product of climate negligence and governance failure. Calls for institutional reform emerged, demanding climate-adapted land-use planning, ecological restoration, and more inclusive emergency management. Yet the reconstruction process has largely been top-down, privileging economic recovery over ecological learning and participatory planning. This disconnect underscores how transitional injustice manifests not only through the original harm (the flood) but also through the inadequate, technocratic, and opaque response that followed (Kale, 2024). The Ahr Valley thus stands as a stark example of how cumulative environmental mismanagement, institutional inertia, and climate denial intersect to produce both physical and political vulnerability—making the case for climate justice inseparable from democratic and ecological repair.

Historical Injustice and the Prioritization of Preventative Justice

The catastrophic flooding of Germany's Ahr Valley in July 2021, which killed over 130 people and destroyed thousands of homes, was widely recognized not simply as a natural disaster but as the outcome of systemic policy failure (Kale, 2024). For decades, scientific warnings about the region's vulnerability to climate extremes were ignored. Land-use policies encouraged soil sealing and construction in floodplains, while early warning systems remained outdated and poorly coordinated. Cumulative ecological degradation—through river channeling, forest loss, and neglected floodplain restoration—further undermined resilience. These long-standing decisions created fertile ground for what transitional justice scholars describe as structural violence, where state inaction embeds harm into everyday life. The flood was thus both a physical disaster and the exposure of decades of neglect.

This historical backdrop shaped the direction of justice claims. Movements framed reparations not as individual compensation but as collective restoration and resilience-building, recognizing that the harm was systemic rather than accidental. Ecological repair through river rewilding, sponge-function soils, and sustainable reconstruction was demanded alongside support for vulnerable communities (BUND, 2021; Amnesty International, 2021). Here, reparation becomes less about financial redress for past losses and more about correcting historically embedded governance failures that heightened exposure to disaster.

The same mechanism appears in calls for institutional reform. The failure to act on known risks—despite repeated warnings—was perceived as a betrayal of public trust. As a result, justice demands centered on preventing non-repetition through stronger early-warning systems, transparent land-use planning, and modernized infrastructure (Fridays for Future, 2021; WWF, 2024). Rather than viewing reform as a technocratic adjustment, movements framed it as a moral obligation to rectify decades of policy inertia.

Truth-telling, while less prominent, also reflects this historical context. Demands for transparent risk communication and participatory education (BUND, 2021; Greenpeace; Weiland, 2023) highlight how the systematic withholding or downplaying of knowledge contributed to the disaster. Even in the absence of formal truth commissions, these measures are interpreted as a way of breaking the cycle of silence and denial that enabled vulnerability to accumulate over time.

Legal strategies, by contrast, were muted. While references to existing laws and court rulings were made (BUND, 2021; Amnesty International, 2019), no new litigation was pursued. This restraint reflects the mechanism of diffuse responsibility: when harm stems from long-term neglect across multiple institutions, clear legal accountability becomes difficult to establish. Instead, justice claims gravitated toward prevention and reform, where responsibility can be broadly attributed without requiring singular culpability.

In sum, the Ahr Valley case shows how historical legacies of ecological mismanagement and policy inertia shape justice discourses. Movements do not primarily seek retribution or traditional restoration, because the harm is cumulative and systemic. Instead, they stress prevention and collective repair, illustrating how justice in environmental disasters becomes oriented toward correcting structural neglect rather than punishing discrete wrongdoing.

Doñana National Park

Doñana National Park, a UNESCO World Heritage site in southern Spain, is one of Europe's most important wetlands, home to endangered species like the Iberian lynx and a vital stopover for migratory birds (UNESCO, n.d.). However, decades of ecological degradation have pushed the park to the brink of collapse. The primary causes include unsustainable agricultural expansion, massive overextraction of groundwater, and the proliferation of illegal irrigation wells—particularly for high-demand crops like strawberries. These pressures have severely depleted the park's aquifers, dried out lagoons, and compromised the health of entire ecosystems (Camacho, et al., 2022). The region's economic dependency on intensive agriculture has led to a policy paradox: environmental laws exist but are poorly enforced, often bypassed in favor of short-term economic interests. This has created a state of transitional injustice, where protective legal frameworks are systematically undermined, and ecological decline proceeds under political complicity. Efforts to regularize illegal wells or hectares of crops and expand irrigation have intensified tensions between farmers, conservationists, and public institutions. Civil society organizations have long warned of this crisis, advocating for ecological restoration, water governance reform, and a shift to sustainable farming models. Yet the Spanish and Andalusian governments have repeatedly failed to implement a coherent water management plan, despite EU sanctions and court rulings (WWF, 2021). The social impacts are equally stark: small farmers face criminalization while larger industrial farms often operate with impunity; local communities suffer from declining water quality and increasing climate risks. Doñana exemplifies a slow-moving ecological disaster compounded by institutional inertia, corporate lobbying, and fragmented governance. The region's history illustrates not just environmental mismanagement, but the systematic erosion of environmental protections and democratic participation—marking it as a paradigmatic case of environmental injustice that demands both ecological and political reparations (Jones, 2022).

Agricultural Extractivism, Water Injustice, and the Pursuit of Restorative and Participatory Justice

Doñana National Park, located in Andalusia, is one of Europe's most biodiverse wetlands, yet for decades it has faced escalating ecological degradation. The crisis stems from the long-term overextraction of groundwater for intensive agriculture—particularly illegal irrigation for export-oriented crops such as strawberries. Despite the park's protected status under EU Natura 2000 and its UNESCO World Heritage designation, governments at both regional and national levels have repeatedly failed to enforce regulations. This chronic failure of governance reflects a form of structural violence: ecological harm and social inequity embedded in weak or complicit institutions.

This historical backdrop shapes the justice claims of movements. Reparations are framed not as individual compensation but as ecological restoration of aquifers and wetlands, combined with support for small farmers to shift toward sustainable models (SEO BirdLife, 2023; WWF, 2025; Fundación Nueva Cultura del Agua, 2023). The mechanism at play here is the recognition that decades of extractivism harmed both ecosystems and livelihoods; thus, repair must restore balance between ecological integrity and rural economies, while excluding illegal and excessive irrigation practices (Greenpeace, 2025; Saldaña, 2023).

Institutional reform emerges as a second key arena, rooted in the mechanism of institutional complicity. Past failures to enforce water laws, alongside attempts to legalize illegal wells, revealed systemic corruption and policy capture. In response, groups such as SEO BirdLife (n.d.) and Ecologistas en Acción (2023) demand

participatory water governance, binding Natura 2000 management plans, and democratic land-use policies. These calls are not only about technocratic improvements but about preventing the repetition of long-standing governance failures.

Truth-telling is especially prominent in Doñana, reflecting the mechanism of silenced knowledge. Civil society organizations have used participatory dialogue, education campaigns, and stakeholder initiatives such as the “Strawberry Plan” (WWF, 2023) to expose past harms and co-create sustainable futures. These measures highlight how the long history of secrecy and denial in water governance must be countered by transparency and shared responsibility.

By contrast, legal mechanisms play a more indirect role. While EU rulings against Spain for violating environmental directives are frequently invoked (SEO BirdLife, n.d.; Ecologistas en Acción, 2016), litigation is not the primary tool of local movements—apart from WWF’s occasional interventions (WWF, 2023). This reflects the mechanism of strategic dependence: since conservation and agrarian communities are interlinked, adversarial strategies risk alienating potential allies.

In sum, Doñana illustrates how historical agricultural extractivism and regulatory erosion shape justice discourses. Movements prioritize restoration, participation, and institutional reform over retribution, framing justice as the repair of long-standing governance failures and the creation of more democratic water futures.

Hambach Forest Mining

Hambach Forest, located in North Rhine-Westphalia, became a symbol of Germany’s broader struggle over coal, climate, and justice. Once a 12,000-year-old biodiverse woodland, Hambach has been systematically destroyed since the 1970s to make way for one of Europe’s largest open-pit lignite mines, operated by RWE. The mine not only devastated the landscape—reducing the forest to a fraction of its original size—but also displaced entire villages, caused air and water pollution, and undermined Germany’s climate commitments (BUND, n.d.). Despite legal protections for rare species and environmental impact requirements under European law, mining continued largely unchecked due to favorable national energy policies and close ties between RWE and political actors. When activists and local communities mobilized to stop the destruction, they were met with repression, police violence, and eviction. In 2018, a fatal fall during a police operation to remove tree-sitting protesters underscored the high stakes and human cost of resistance (DW, 2018). The Hambach case reflects a clear trajectory of transitional injustice: environmental and human rights are subordinated to fossil fuel interests, while legal frameworks are selectively enforced or ignored. Movements like Ende Gelände and BUND challenged this paradigm through mass civil disobedience and litigation, temporarily halting forest clearing. Yet the broader energy compromise that followed—involving a delayed coal phase-out and limited forest preservation—was criticized as insufficient, perpetuating extractive governance under a different guise (Nijhuis, 2021). Hambach illustrates how transitional injustice unfolds not only through ecological degradation but through institutional resistance to transformative change. The state’s dual role as protector and violator of environmental law, its repression of dissent, and the marginalization of affected communities highlight the systemic barriers to climate justice. The forest’s partial survival became symbolic, but the structural conditions that enabled its destruction—corporate capture, weak enforcement, and narrow energy policy—remain largely intact.

Fossil Extractivism, Displacement, and Confrontational Transitional Justice

Hambach Forest in North Rhine-Westphalia has been at the center of Germany's coal conflict since the 1970s, when RWE began expanding Europe's largest open-pit lignite mine. Over decades, the mine destroyed ancient woodland, displaced entire villages, and caused severe ecological damage—all while benefiting from favorable energy policies and political complicity. Despite existing protections under EU environmental law, extraction continued, reflecting a legacy of institutional capture: state frameworks nominally designed to protect nature were bent to serve industrial interests. This history created the conditions for structural violence, where communities were dispossessed and ecosystems dismantled in the name of energy security.

This background shaped the mechanisms of justice claims advanced by movements. Reparations are framed not in monetary terms but in calls to restore ecosystems, protect displaced communities, and preserve remaining forest areas (BUND, 2020). Movements like Ende Gelände extend reparations beyond the local scale, linking coal extraction to global climate injustice and framing solidarity with affected communities in the Global South as part of the reparative process (Ende Gelände, 2018). The mechanism here is acknowledgment of interconnected harm, where local extraction is tied to broader ecological and social costs.

Institutional reform constitutes the most ambitious demand. Movements argue that decades of coal expansion reveal systemic failures, where political structures prioritize corporate interests over democratic accountability. Ende Gelände and Extinction Rebellion Deutschland explicitly call for democratizing the economy and dismantling extractivist logics as a prerequisite for climate justice (Schröder, 2018; Extinction Rebellion Deutschland, n.d.). This reflects the mechanism of contested legitimacy: reform is not about incremental adjustment but about transforming institutions whose credibility has been eroded by complicity in harm.

Legal mechanisms are selectively employed. BUND's successful injunction under the EU Habitats Directive temporarily halted deforestation, demonstrating that existing laws can be leveraged to constrain corporate power (BUND, 2020). Yet most groups avoid legal reliance, reflecting institutional distrust. Years of police repression, forced evictions, and political resistance (DW, 2018) have convinced activists that courts cannot substitute for civil disobedience and mass mobilization. Here, litigation serves more as symbolic precedent than as a primary strategy.

By contrast, truth-telling is marginal. BUND alone has suggested open community dialogue to counteract distrust (BUND, 2020). However, the broader movement largely rejects truth-telling frameworks, reflecting the mechanism of ruptured trust: when state and corporate actors are seen as untrustworthy, inclusive dialogue loses credibility.

In sum, Hambach illustrates how a history of fossil extractivism and political complicity produces a confrontational model of justice. Movements prioritize reform, reparations, and protest over dialogue, grounding their claims in institutional distrust and ecological grief. The case demonstrates how justice demands evolve when institutions themselves are perceived as complicit in harm.

Retortillo Uranium Mining

The proposed uranium mining project in Retortillo, located in Salamanca, Spain, has sparked fierce opposition due to its environmental, health, and political implications. Operated by the multinational Berkeley Energia, the mine was promoted as a job-creating investment but has been widely criticized for its long-term ecological risks, especially radioactive contamination, water pollution, and deforestation. The area affected includes protected zones under the Natura 2000 Network, home to endangered species and vital ecosystems (European Parliament, 2017). Local resistance began early, with communities, environmental groups, and municipal authorities raising alarm about the irreversible damage posed by radioactive waste, habitat destruction, and groundwater depletion. Allegations of corruption, permitting irregularities, and lobbying pressure on institutions like the Nuclear Safety Council have further eroded public trust. The project's progression despite missing authorizations and clear public opposition reveals profound governance failures (Leotaud, 2016). What sets Retortillo apart is the addition of nuclear risks to democratic deficits and environmental degradation. The mine's advance despite clear legal, ecological, and ethical concerns exposes systemic injustice—where the costs of contamination and displacement are offloaded onto already vulnerable rural populations. The lack of a meaningful transition strategy that involves local actors, respects environmental thresholds, and prioritizes health and safety transforms this case from an environmental dispute into a broader crisis of institutional legitimacy and environmental democracy.

Radioactive Risk, Institutional Negligence, and Defensive Justice Without Truth-Telling

Retortillo, a rural municipality in Salamanca, Spain, became the focal point of intense contestation when Berkeley Energia proposed opening a uranium mine and processing facility. Located adjacent to Natura 2000 protected zones, the project triggered immediate resistance from residents, scientists, and environmental groups. The opposition drew on local histories of extractive planning without consent: over a thousand century-old oaks were felled before permits were finalized, environmental assessments were irregular, and institutional lobbying overshadowed local voices. These dynamics revealed structural injustice, where corporate influence and political complicity bypassed democratic safeguards, creating deep mistrust of both government and regulatory authorities.

This history shaped how justice claims were articulated. Institutional reform featured prominently but was framed in highly confrontational terms. Movements denounced regulatory negligence, corruption, and the inconsistency of Spain's energy policy—professing commitment to renewables while enabling nuclear expansion (Ecologistas en Acción, 2016; Amigos de la Tierra, 2020). These calls reflect the mechanism of delegitimized governance, where institutions once tasked with oversight are portrayed as enablers of harm.

Reparations demands focus less on compensation and more on ecological and social safeguards. Groups advocate for reforestation, water protection, and an end to forced expropriations (Amigos de la Tierra, 2020). Because the mine remains in planning and construction stages, most reparative claims are anticipatory, aimed at preventing irreversible radioactive and ecological damage rather than addressing past losses.

Legal mechanisms are unusually central in this case. WWF's complaint over illegal deforestation in Natura 2000 zones triggered prosecutorial proceedings, while Ecologistas en Acción (2016) challenged the mine's misclassification in Spain's National Court. Litigation here reflects a defensive strategy: law is mobilized

urgently to halt or delay the project before irreversible contamination occurs. Unlike in Hambach, legal channels are not secondary but integral, reflecting the existential nature of nuclear risks.

By contrast, truth-telling is absent. No proposals for dialogue, inquiries, or participatory documentation have been made. This absence reflects a mechanism of suppressed transparency: in a highly polarized and repressive setting, opponents may perceive public dialogue as risky or ineffective, further reinforcing institutional mistrust.

In sum, Retortillo represents a defensive justice model, rooted in anticipatory reparations, litigation, and institutional critique. The absence of truth-telling and participatory governance highlights the democratic deficits of high-stakes extractive politics, where communities mobilize not to repair past harm but to prevent catastrophic future ones.

Concluding Remarks

Across all cases, the deployment of transitional justice mechanisms reflects how movements tailor their strategies to context-specific experiences of harm. These case studies show that transitional justice in environmental contexts is not only retrospective but also anticipatory and preventive, aiming to transform the systems that made harm possible. They highlight the need for an adaptive justice framework, one that centers ecological restoration, democratic accountability, and social inclusion in the face of ongoing environmental crises.

4.3 Subquestion 3

This report examines how transitional justice mechanisms are mobilized in four environmental conflicts: the Ahr Valley floods and Doñana aquifer crisis (water cases), and the Hambach lignite mine and Retortillo uranium project (mining cases). Each case reveals distinct patterns in discursive framing, mobilization tactics, and coalition-building, shaped by local histories of ecological harm and governance failure. The analysis of the discursive framing will be building upon the analysis in 4.1, it will not focus on the prevalence of the mechanisms but on how the mechanism are framed through masking and highlighting and what that implies for the representations of transitional justice claims. By comparing these cases, we identify how movements prioritize ecological restoration, legal accountability, institutional reform, and truth-telling to pursue reparative and preventive justice.

Ahr Valley Floods

Discursive Framing

Social movements in the Ahr Valley flood aftermath framed the disaster not as a singular natural event but as the result of institutional negligence, employing a structural justice narrative. Across all transitional justice statements, 16 unique reparative demands emerge: 10 (62.5%) emphasize environment-centred measures—such as floodplain rehabilitation, nature-based dikes, river renaturation, and maintaining sponge-function soils—while 6 (37.5%) focus on human-centred reparations like community support or new settlement policies. This reveals a marked tilt toward ecological concerns. Even within environmental claims, emphasis falls on preventative measures (60%) rather than restorative ones (40%). Situated within transitional justice theory, this prioritization of prevention over restoration or retribution underscores a distinctive justice orientation.

Legal mechanisms appear only minimally, with 2 (7.1%) statements by BUND and Amnesty International referencing existing law in a preventative frame, without advancing litigation. In contrast, institutional reform surfaces more strongly, in 8 statements (28.5%), calling for improved early-warning systems, climate-adaptation, and land-use planning, alongside critiques of institutional unpreparedness. Truth-telling remains secondary, appearing in just 2 (7.1%) calls for risk-communication and participatory processes.

Taken together, the data highlights the prominence of environment-centred and preventative justice frames, while human-centred reparations, legal mechanisms, and truth-telling remain marginal. Restorative efforts within environmental claims are also deprioritized. This points to a discursive preference for systemic, technocratic prevention and institutional critique over direct community redress, accountability, or vulnerability-focused justice. In transitional justice terms, this framing sidelines retributive justice, as questions of liability or punishment are largely absent, and limits restorative justice to ecological repair rather than human recovery. What emerges is a justice vision oriented more toward avoiding future harm than addressing past damage, challenging how transitional justice theory is typically applied to socio-environmental crises.

Reparations	Legal Mechanisms	Institutional Reform	Truth Telling
<ul style="list-style-type: none"> - support local communities - preventative measures to ensure non-repetition for affected communities - Prevention awareness - settlement policy - address human health concerns - Solutions for poorer and precarious people - safety measures - Climate protection - sustainable reconstruction aid - Ecological flood protection - ecological restoration - promote forest protection - sustainable use of water sources - ecological ground politics - habitat restoration - animal health concerns 	<ul style="list-style-type: none"> - Water Resource Act - climate protection act as partially unconstitutional 	<ul style="list-style-type: none"> - institutional failure/ unpreparedness/ slow action - climate adaptation - protest repression - conditions for climate and civil protection - catastrophe prevention mechanisms - land use policy changes - switching energy systems - employment restructuring 	<ul style="list-style-type: none"> - transparent risk communication and education - communication with and participation of citizens

TABLE 10: AHR VALLEY CODES

Mobilization Tactics

Due to the cases medium mobilization potential, the mobilization efforts through the social movements were limited with regards attempting to gather support within the society to garner change. Mainly the organisations analysed were focused on producing knowledge and spreading awareness to protect the public from repeat incidents and support in getting governmental attention. However, mobilization within the local community still occurred facilitated by various groups.

15,000 volunteers organized through spontaneous mutual-aid networks like “Fluthilfe-Ahr”, which were established overnight to clear debris, distribute supplies, house displaced residents, and collection of donations with were promoted and supported by larger organisations (Fluthilfe-Ahr E.V., n.d.). Over hundreds of volunteers worked daily in cleanup and reconstruction, coordinated via the citizen-run “Helfer-Shuttle” service (Betke, et al., 2022). This extensive grassroots commitment beyond spontaneous relief bursts, showcases a clear attempt to support locally rather than organise on a larger scale for example through nation wide protests against government inaction or systemic failures in crisis prevention.

Beyond physical labour, mobilisation also occurred in numerous donations. People all throughout Germany were mobilised and donated not only money, which reached amounts of around 655 Millions Euro both from private persons and companies, but also supplies such as food, clothes and toys for children affected by the floods (von Thien, 2024).

While protests were not the primary focus of social movements with the priority being supporting the affected communities, some small protests were organised mostly in response to the slow disbursement of money from the reconstruction fund of the federal and state governments. Even in smaller regions of Germany which usually do not experience large scale protests, such as Bad Neuenahr-Ahrweiler, managed to mobilise up to 200 people to protest (Spiegel, 2022)

Ultimately, the Bundestag provided a reconstruction package of 15 billion Euro, however, improvements locally are still slow. People in the affected areas are feeling discouraged in their rebuilding efforts, still traumatised from the catastrophe. In addition bureaucratic and administrative shortcomings are further complicating any attempts to make change (Maurer, 2023).

Coalition-Building

Throughout the original mobilisation phase there was little coalition between the analysed organisations. Their cooperation was informal and narrow, purely based on shared values and end goals. All organisations were largely in agreement on what the demands from the government should be which can be seen in the frequent repetition of the same demands across all actors.

However, while not directly connected to the organisations themselves, the initial mobilisation efforts with their grassroots bottom-up approaches sparked connection locally which resulted in the creation of more institutionalised coalitions. They ultimately formed their own regional organisations such as Hochwasserpartnerschaft Ahr, Zukunftsregion Ahr, and Fluthilfe-Ahr E.V.. For example, **Hochwasserpartnerschaft Ahr**—a public–private flood preparedness partnership involving local municipalities, disaster agencies, water authorities, and civil society (Kreis Ahrweiler, n.d.). On the other hand, Zukunftsregion Ahr was founded in 2023 with the aim of coordination, networking and promotion of commitment to the reconstruction of the Ahr Valley to ensure the sustainability of the entire Ahr region for future generations (Zukunftsregion Ahr, n.d.). Fluthilfe-Ahr E.V. (n.d.) and the citizen-run **“Helfer-Shuttle”** service (Betke, et al., 2022) established themselves as the cornerstone coalition with their collaborative effort in flood relief and rebuilding efforts.

This success illustrates how strategic integration of discursive framing, mobilization speed and tactics, and formal coordination can drive long-term coalition building - even the establishment of new organisations - who further pursue transitional justice goals such as short-term relief, policy reform, and anticipatory planning after the initial phase of mobilisation around a catastrophic event dies down.

Doñana National Park

Discursive Framing

Doñana’s movements anchor their justice claims in a dense, technocratic narrative of hydrological injustice, framing ecological decline as systemic policy failure. Among 12 reparative statements, 8 (66.6%)

emphasized ecological demands—such as ecosystem restoration, the abolition of harmful agricultural methods, and protection of biodiversity and wetlands—while only 4 (33.3%) were human-centred, including farmer livelihood support tied to sustainable practices and regional well-being. As in the Ahr Valley, ecological concerns dominate, with a further tilt toward preventative measures (75%) over restorative ones (25%). This prioritization departs from transitional justice theory, where retributive and restorative dimensions typically dominate, by emphasizing prevention as the preferred mode of justice.

Legal mechanisms appear mainly in references to past EU Court of Justice rulings, such as the 2021 judgment against Spain following a WWF complaint. These 5 references (15.6%) serve as leverage for highlighting state misconduct but do not advance new litigation. Institutional reform is more prominent, accounting for 11 demands (34.3%) that call for restructuring the agricultural sector, ending the binary of protection versus exploitation, and abolishing amnesties for illegal farms. Truth-telling is less central, with 4 demands focusing on extraction-plan transparency and citizen education.

Overall, the data underscores the dominance of ecological and preventative frames in Doñana (66.6% of reparative claims, with 75% prevention-focused), while human-centred concerns remain secondary. Legal accountability is invoked but rooted in historical precedent rather than forward-looking litigation, and restorative action is limited. In transitional justice terms, this framing sidelines retributive justice—liability and punishment are almost entirely absent—and narrows restorative justice to ecosystem repair rather than community recovery. Justice here is envisioned primarily through systemic prevention and institutional reform, privileging ecological functionality over human vulnerability and accountability.

Reparations	Legal Mechanisms	Institutional Reform	Truth Telling
<ul style="list-style-type: none"> - finance sustainable farming - promote sustainable development - well-being and quality of life for citizens - support with necessary human/ technical and financial resources - habitat protection - biodiversity protection - wetland protection - abolishment of harmful agricultural methods - water restoration - ecological restoration - no new survey for injecting gas into the subsoil - reduce overall pollution 	<ul style="list-style-type: none"> - potential non-compliance with community environmental regulations resulting in fines - EU law violations - EU judgement: protection of natural values of Doñana - EU condemned Spain for excessive removal of groundwater - EU Sanctions threat 	<ul style="list-style-type: none"> - restructuring plan for the entire agricultural sector - Management Plan of the protected areas of the Natura 2000 Network of Doñana - abandon bipolar state of protection-destruction - scientific focus over ideology of economic interests - political corruption and lobbying - ineffective risk assessments - incompatible climatic framework - amnesty for illegal farms - public forest management - ecological connectivity system - zero-dumping mining system 	<ul style="list-style-type: none"> - citizen education - transparency to the annual extraction plans - citizen participation - expert committees

TABLE 11: DOÑANA NATIONAL PARK CODES

Mobilization Tactics

In Doñana, similar to Ahr Valley with a medium mobilization potential, the tactical focus has been on leveraging legal precedents, scientific transparency and accountability, and targeted digital mobilization, with fewer mass protests due to complex local political economy. The June 2021 ECJ ruling set a precedent, compelling regional regulators to audit water permits and restrict illegal wells on the basis of excessive removal of groundwater. This legal victory served as a foundation for policy advocacy by the relevant social movements (WWF, 2023). This legal case and similar one created a foundation for organisations such as WWF (2023), Plataforma Salvemos Doñana (2023) and Ecologistas en Acción (2016) to leverage the legal system without initiating lawsuit and highlight governmental misconduct and in some instances the disregard for legal decisions.

Scientific advocacy played a vital role in leveraging scientific evidence to hold governments accountable and educate the public on the state of Doñana, its water reserve, the local biodiversity and reality of the farming practices. For example, Fundación Nueva Cultura del Agua (2023) presents an analysis of the groundwater bodies or Fuentelsaz, et al. (2025) for WWF published an evaluation of the compliance with the Doñana Forest Crown Special Plan.

Digital strategies included a numerous petition both to urge protective measure and to actively raise awareness of the circumstances of Doñana. The petition by BirdLife International (2023) focuses on the risk of species' extinctions through illegal irrigation, WWF (2014) started a petition on the basis of protecting the wetlands from gas exploitation, and a petition was stated, as one of the most successful ones, calling for the boycott of buying Spanish strawberries which was signed by 165,087 people (Dillmann, 2023). Petitions such as these are a great tool used by social movement to exert pressure on government and gain wide spread visibility without the necessity for large protest gatherings.

However, there were also protests for the protection of Doñana and its wildlife in particular. For example, the protest on Nov. 24, 2016 urging the government to protect the national park with the main focus being that it provides a habitat for migratory bird. In total 130,000 were a part of the World Wildlife Fund campaign (phys.org, 2016).

Coalition-Building

Coalition building in the case of Doñana has been present but remains limited in institutional scope and coordination depth. While key actors—such as WWF, SEO/BirdLife, Greenpeace España, Ecologistas en Acción, and Fundación Nueva Cultura del Agua (FNCA)—align on core demands (aquifer protection, illegal well closures, sustainable farming), formal, long-term coordination is scarce. However, one notable example is the Plataforma Salvemos Doñana, a civic platform which comprises multiple organisations such as SEO/BirdLife, which explicitly seeks to mobilize civil society and coordinate efforts across NGOs, researchers, and citizens to defend the wetland (SEO/BirdLife, 2023). Though important, its structure remains loosely organized and primarily oriented toward awareness-raising rather than long-term policy advocacy or joint implementation strategies.

WWF has explicitly called for stronger coalition mechanisms through its proposed “Strawberry Plan”,

recommending the inclusion of all impacted stakeholders—farmers, civil society, and regulators—to develop a participatory water governance model (WWF, 2020)

In sum, coalition breadth exists, but institutionalization is weak. The existing alliances are mostly short-term, campaign-specific, and lack the formal infrastructure needed for sustained, high-impact coordination.

Hambach Forest Mining

Discursive Framing

The discursive strategy in Hambach balances moral urgency with environmental science and political critique. Of 8 reparative demands, 5 (62.5%) are ecological—focused on forest and biodiversity protection, threats to ancient woodland, habitat loss, and extending Natura 2000 protections—while 3 (37.5%) are human-centred, emphasizing displacement, redress for expropriation, and health impacts from coal dust and pollution. Although ecological frames dominate, all focus on prevention, with no demands for restoration of already inflicted damage. As in the water-based cases, this highlights a preference for prevention over the restorative or retributive dimensions typically central to transitional justice.

Legal mechanisms appear only in BUND statements, with 2 references (14.2%) citing the landmark 2017–18 injunction under the EU Habitats Directive, which successfully halted bat habitat clearance. Litigation here is valued mainly as precedent, not as a vehicle for new claims. Institutional reform appears in 3 statements (21.4%), demanding reduced corporate influence in politics, better engagement with activists, and addressing political inaction. Truth-telling is marginal, with just 1 statement (7.1%) calling for community dialogue and transparency.

Together, these frames construct Hambach as both an ecological emergency and a climate ethics crisis. They legitimize a hybrid strategy: direct action to disrupt extractive operations, litigation to showcase accountability, and campaigns for a renewable-based energy transition. Yet the discursive emphasis lies on ecological-centred and preventative frames (62.5% of demands) while excluding restorative calls, thereby masking existing damage and foregrounding protection over remediation. Human-centred demands (37.5%) underscore displacement and health but stop short of systemic redress. In transitional justice terms, retributive justice is absent—corporate and state accountability for harm is only indirectly invoked—and restorative justice is narrowed to preventing future losses rather than repairing past ones. The justice vision advanced in Hambach thus privileges ecological protection and political critique over community recovery or legal responsibility.

Reparations	Legal Mechanisms	Institutional Reform	Truth Telling
<ul style="list-style-type: none"> - Livelihoods local communities - well-being and quality of life for citizens - financial reimbursement - coal phase out and renewable energy investments - forest protection - habitat protection - biodiversity efforts - water supply preservation 	<ul style="list-style-type: none"> - Judgment for a clearing stop - Environmental compatibility assessment 	<ul style="list-style-type: none"> - change of economic influence on politics - change of engagement with environmental activists - political inaction 	<ul style="list-style-type: none"> - community dialogue

TABLE 12: HAMBACH FOREST CODES

Mobilization Tactics

Mobilization tactics in Hambach were marked by a high degree of visibility, persistence, and symbolic resistance, centered on mass protests and the viral #Hambibleibt campaign. The protest wave gained national momentum in 2018, when thousands of activists occupied treehouses in the forest to resist RWE’s planned deforestation. Despite legal disputes and police evictions, the occupation became a long-term form of resistance that lasted nearly a decade and attracted support from across Germany. One of the largest demonstrations took place in October 2018, when over 50,000 protesters marched near Buir in solidarity with the Hambach Forest defenders (WDR, 2018).

Protest camps created a “counter-society,” blending environmental activism with communal living and direct democracy. These camps became focal points for civil disobedience, including road blockades and the occupation of machinery. Activists shared updates and calls to action via the #Hambibleibt hashtag, which rapidly trended on social media, helping the campaign gain both national and international visibility (Universität Erfurt, 2021). The digital reach of the movement amplified on-the-ground actions and played a crucial role in pressuring politicians during coalition talks and the coal commission negotiations. The fusion of digital activism with direct action turned Hambach into one of Germany’s most symbolically powerful environmental protest sites.

Besides the heavy focus on civil disobedience and protests, the involved social movements also attempted to garner attention and educate the public through publishing science based opinion pieces, statements, and even their own studies. For example, BUND (2020) published a study explaining why the process of coal phaseout is slow moving and formulating suggestions on how to best proceed.

Coalition-Building

The building of coalitions in the case of the Hambach forest is limited in its scope and depth, mainly just extending to the fact that the involved actors pursue the same end goal and make the same demands in this persist. In Hambach six core organizations—Ende Gelände, Fridays for Future, Extinction Rebellion, BUND, NABU, Greenpeace—supported by a network of local community groups (e.g., Buirer für Buir). When coordination was required, it occurred through a locally rooted yet mainly international network, resulting in a relatively low formal institutionalization but strong tactical coherence. The network was made up of different activists and social movement groups with different geographical and social backgrounds. The main lines of connectivity for this network were on one hand network meetings which occurred regularly and on the other individuals who were a part of two or more of the involved groups (Mohr & Smits, 2022).

Though not formally chartered, the coalition exhibited medium institutional durability via recurring schedules, collaborative planning, and rotating coordination responsibility. Its informal structure enabled rapid adaptation while preserving cohesion. The coalition's most intense phase spanned 2018 to 2019 were the movement despite its local focus was geographically dispersed (Mohr & Smits, 2022). Even after the clearing moratorium, the relevant social movements are still concerned for the state of the forest and are continuously advocating for its protection.

Strategic tension occasionally surfaced: radical activists prioritized forest blockade, while NGOs emphasized enforceable legal remedies. However, shared framing and coordinated communication strategies allowed diverse groups to maintain unity. Hambach thus serves as a model of hybrid coalition-building, where direct action, litigation, and scientific monitoring align to drive transformative environmental justice.

Retortillo Uranium Mining

Discursive Framing

In Retortillo, discourse balances moral and rights-based framings with a technical, risk-oriented narrative tied to the nuclear dimension of the case. Reparative claims dominate, comprising 11 of 20 demands (55%). Of these, 7 (63%) are ecological—focused on habitat and biodiversity protection, as well as prohibiting further exploration or exploitation. Given that the movement formed to stop the mine's establishment, nearly all ecological demands are preventative, with only one (14.2%) addressing existing damage such as deforestation from preparatory works. Human-centred reparations are fewer (3 of 11; 27.2%), addressing health protection and risks of local job losses. A distinctive category (9%) emerges around radiological risk prevention, reflecting the nuclear-specific context and bridging ecological and human concerns. As in the other cases, reparations lean heavily toward prevention, sidelining the restorative and retributive justice dimensions central to transitional justice theory.

Legal mechanisms appear in 2 statements (20%), focusing on breaches of prior authorizations and deforestation in Natura 2000 areas. Institutional reform is more prominent, with 7 claims (35%) criticizing missing authorizations, corruption, bribery, and lack of transparency. Truth-telling is entirely absent, underscoring the lack of narrative openness or community engagement.

Overall, the discursive strategy in Retortillo foregrounds preventative ecological demands (63%) while excluding restorative claims, even in light of visible deforestation, thereby masking the need to repair past harms. Human-centred demands are underrepresented and narrow in scope, largely limited to health and

employment. The radiological risk category (9%) further illustrates how nuclear threats reshape justice framings around prevention. In transitional justice terms, retributive justice is absent—state and corporate accountability for corruption or environmental harm is only indirectly invoked—while restorative justice is minimal and largely ecological. Instead, justice is envisioned primarily as prevention and institutional reform, reflecting a technocratic and future-oriented framing rather than one centered on repair or accountability.

Reparations	Legal Mechanisms	Institutional Reform	Truth Telling
<ul style="list-style-type: none"> - human health protection - job loss - land ownership from private persons - prevention and correction measures against radiological emergencies - environmental restoration - pollution - habitat protection - biodiversity protection - water protection - ecological transition - prohibits the activities of exploration or exploitation 	<ul style="list-style-type: none"> - appeal prior authorization - deforestation and Natural 2000 Network space 	<ul style="list-style-type: none"> - missing authorisations - corruption and bribery - fraudulent impact report - lack of reliability - lack of transparency - unfavourable public utility report - inconsistent with goal of energy transition 	

TABLE 13: RETORTILLO URANIUM MINES CODES

Mobilization Tactics

Mobilization efforts in Retortillo have been characterized by mass protests organized through grassroots and municipal collaboration. In January 2017, over **5,000 people** marched through Salamanca to oppose the uranium mine proposed by Berkeley Energia, making it one of the largest anti-nuclear demonstrations in Spain in recent years (Leotaud, 2018). The protest was led by local mayors, farmers, and residents, joined by national and international environmental groups, signaling broad-based resistance. The mayor of Villavieja de Yeltes, a neighboring municipality, played a pivotal role in organizing a subsequent demonstration in February 2018, reaffirming the strength of local institutional opposition (Leotaud, 2017). These actions combined civic leadership with public mobilization to amplify resistance against extractivist and radioactive risks.

At the same time, the main social movements publish joint statements and individual studies as a tactic to garner further attention for the issue and educate the general public on the risks of the development as well as hold the governments accountable by clearly outlining the risk and showcasing better approaches. For example, Ecologistas en Acción (2016) writing about the corruption at play in the discussions around the mines.

These combined tactics—grassroots participation, science approaches and evidence collection, and mass

mobilization—functioned in synergy. Whereas Hambach relied on street disruption, Retortillo focused on procedural justice and health legitimacy. The outcome: by 2023, Berkeley Energia had failed to secure a final construction license, indicating movement success through constraining bureaucratic space rather than outright protest.

Coalition-Building

Coalition building in Retortillo has been marked by high-profile, issue-specific coordination among Spain’s major environmental NGOs. The organizations including WWF España, Greenpeace, Ecologistas en Acción, Amigos de la Tierra, and SEO/BirdLife jointly appealed to the Spanish government to deny the renewal of Berkeley Energia’s nuclear permit for the Retortillo uranium mine (WWF, 2020; Amigos de la Tierra, 2020). This unified demand — framed around radiological risk, environmental degradation, and procedural violations — demonstrated a rare convergence of civil society actors across institutional and advocacy domains. While the coalition did not evolve into a formal or long-term body, it effectively amplified pressure at a decisive political moment. The joint statement also underscored the alliance’s shared concern over democratic deficits, ecological safety, and compliance with environmental law. Though coordination was ad hoc rather than institutionalized, this collective action highlights the strategic potential of aligned messaging and synchronized legal-political advocacy in extractive conflicts.

Concluding Remarks

These comparisons show that transitional justice in environmental contexts must align with the nature of harm: water-governance crises favor technocratic, cooperative reforms, whereas extractive conflicts drive confrontational coalitions. Effective justice strategies blend ecological restoration with social redress, but their relative emphasis and methods differ according to local histories, institutional opportunities, and the visibility of harm. All cases highlight prevention over restorative or retributive justice which can hold implications to future theory development if environmental concerns get further integrated into transitional justice.

5 Discussion

5.1. Introduction

This discussion chapter explores how social movements in four European environmental justice cases articulate, frame, and pursue transitional justice. Drawing on a comparative analysis of discursive strategies, mobilization tactics, and coalition-building efforts, it examines the specific demands raised, the local histories that shape them, and the strategic variations across cases. Rather than structuring the discussion by case, it focuses on recurring themes—such as the balance between ecological and human-centric reparations, the role of legal mechanisms, and the institutionalization of coalitions. In doing so, it highlights how movements reinterpret transitional justice for environmental struggles in diverse political and ecological contexts.

5.2. Visions and Objectives for Transitional Justice in Environmental Mobilizations

The Ahr Valley and Doñana cases both center on water governance failures, ecological degradation, and the long-term fallout of policy neglect. Reparations in both contexts prioritize the restoration of natural hydrological systems and the enhancement of climate resilience. Ahr Valley movements like Fridays for Future (2021) and BUND (2021) emphasize flood prevention, sustainable reconstruction, and ecological land use, advocating for nature-based flood defenses and community-led planning. In Doñana, actors such as SEO/BirdLife (n.d.) and WWF (2023) stress aquifer recovery, the abolition of illegal irrigation, and reconciling wetland protection with sustainable agriculture. Institutional reform features prominently: Ahr Valley campaigns target civil-protection protocols, disaster response, and participatory land-use planning, while Doñana groups demand agricultural sector restructuring, robust anti-corruption measures, and stricter Natura 2000 enforcement. Truth-telling is comparatively visible in both cases—through citizen education, participatory water governance forums, and transparent risk communication—yet legal mechanisms are employed passively, recalling prior EU rulings or national laws rather than launching fresh litigation, reflecting a cooperative mobilization style.

By contrast, Hambach and Retortillo illustrate mining-related justice struggles driven by extractive agendas, energy policy, and corporate-state collusion. In Hambach, Ende Gelände (2018) and BUND (2020) frame reparations around forest protection and displacement redress, while pressing anti-capitalist reforms and democratization of energy decision-making. Legal action is selective but potent: BUND's injunction halted deforestation under the Habitats Directive. In Retortillo, reparations are narrowly framed around health risks, radioactive contamination, and long-term environmental legacies. Legal mechanisms are more assertively deployed—WWF and *Ecologistas en Acción*'s complaints triggered investigations and permit delays—while institutional reform focuses on combating corruption, regulatory failures, and enforcing stringent safety and permitting frameworks. Truth-telling mechanisms are notably scarce in Retortillo, signaling a more adversarial and defensive context.

Comparing water and mining cases reveals distinct strategies: water mobilizations (Ahr Valley, Doñana)

adopt proactive, cooperative approaches—ecosystem restoration, sustainable land use, participatory governance, and preventive justice—whereas mining movements (Hambach, Retortillo) embrace confrontational tactics—legal accountability, direct action, institutional critique, and policy rollback. Institutional reform is universal but context-specific: water cases seek enhanced planning and transparency; mining cases demand structural change, anti-corporate regulation, and enforcement. Legal recourse is more assertive in mining contexts, while water actors rely on precedents. Truth-telling appears robust in water struggles but is marginal in extractive conflicts. These patterns reflect how the nature of harm—diffuse systemic crises versus concentrated high-risk extraction—shapes the tools, alliances, and justice imaginaries that each movement mobilizes.

5.3. How Local Histories Shape Calls for Acknowledgment and Reparations

The Ahr Valley and Doñana cases both reveal how histories of state failure in water governance shape demands for justice, yet they diverge in pace and scale. In the Ahr Valley, the sudden 2021 floods exposed deficiencies in disaster preparedness and risk governance. Movements responded with calls for institutional reform—early-warning systems, sustainable land-use, and transparent crisis communication—alongside preventative reparations like ecological reconstruction (Fridays for Future, 2021). Doñana, by contrast, reflects decades of groundwater overextraction, where civil society stresses anticipatory reparations (wetland restoration, sustainable farming transitions) and participatory water governance (Fuentelsaz et al., 2025). Both cases highlight truth-telling mechanisms—risk education, citizen dialogue, participatory planning—as central tools to rebuild civic trust (BUND, 2021; WWF, 2023). Legal strategies remain secondary, drawing on past EU rulings rather than new litigation. Here, justice mechanisms operate through transparency, inclusion, and prevention, addressing long-standing governance deficits rather than pursuing retribution.

Hambach and Retortillo demonstrate how extractive conflicts produce more confrontational justice pathways. In Hambach, decades of coal expansion and forest clearance fostered a history of ecological dispossession, sparking mass mobilization. Movements framed the struggle in climate justice terms, combining systemic critique with direct action and litigation—BUND’s lawsuit under the EU Habitats Directive (2020) exemplifying how law was leveraged defensively within broader societal mobilization. Retortillo, by contrast, centers on radioactive risk and institutional opacity. Here, civil society highlights corruption, regulatory negligence, and democratic deficits (Ecologistas en Acción, 2016; WWF, 2021), relying on litigation and EU interventions to block the mine. Unlike Hambach, Retortillo lacks truth-telling or participatory mechanisms, reflecting a justice posture that is defensive and adversarial, rather than reconstructive.

Comparing water and mining cases illustrates how justice mechanisms adapt to historical patterns of harm. Water-related conflicts foreground restorative and participatory justice, linking ecological repair with community trust-building. Mining conflicts, by contrast, emphasize adversarial justice, relying on litigation, institutional critique, and moral framing to resist high-risk projects. Truth-telling emerges as central in water cases but marginal in extractive ones, highlighting how diffuse, long-term degradation fosters transparency and inclusion, while concentrated, high-stakes risks generate defensive litigation and confrontational reform

demands. Together, these trajectories expand transitional justice beyond retribution and restoration toward preventative, anticipatory, and defensive models attuned to ecological crises.

5.4. Strategic Variation: Discourses, Mobilization, and Coalitions

Across the water-related cases of Ahr Valley and Doñana, movements converge in their emphasis on ecological restoration and preventative reforms, yet diverge in tone and strategy. Ahr Valley's mobilization emerged from a sudden catastrophe, framing climate inaction as structural negligence. Volunteer networks, rapid NGO responses, and solidarity protests shaped a participatory recovery narrative, though institutional reform demands were more prominent than legal accountability. In contrast, Doñana's decades-long groundwater exploitation fostered a more technocratic mobilization, anchored in legal precedent (e.g., the 2021 ECJ ruling), scientific transparency, and digital advocacy. Though both cases prioritize ecosystem recovery, Ahr Valley emphasizes immediate resilience and inclusive planning, while Doñana frames justice through regulatory reform and policy compliance.

The mining cases of Hambach and Retortillo share strong moral framings and preventative logics but diverge in coalition depth and protest visibility. Hambach combines radical protest (e.g., Ende Gelände, #Hambibleibt) with legal victories and NGO litigation, forming an informal yet sustained coalition that shaped national energy policy. Retortillo, meanwhile, centers on anti-nuclear and anti-colonial discourse, mobilizing locally through large protests and legal appeals. Its coalition—anchored in coordinated NGO statements—was narrower and more ad hoc. While Hambach linked coal to climate injustice and systemic reform, Retortillo focused on halting a singular high-risk project rooted in extractive injustice.

When comparing water to mining cases, the former emphasizes governance reform, ecological planning, and participation, while the latter relies more on symbolic protest, litigation, and moral urgency. Water cases feature broader civil-state engagement; mining cases prioritize resisting extractive infrastructure. Yet across all, transitional injustice is a unifying lens: whether responding to floods, groundwater collapse, or radioactive threats, movements seek to expose environmental harm as the result of long-standing institutional failure—demanding structural change, not just mitigation.

While movements acknowledge existing harm, their framing overwhelmingly emphasizes preventing future damage through ecological protection and institutional reform, often sidelining human-centred redress, accountability, or truth-telling. The proportionally higher focus on preventative justice narratives in the discursive framing across all cases rather than the more established justice dimensions showcases a potential shift within the current theoretical framework should environmental concerns be further integrated into the concept. It leaves room for interpretation whether preventative measures would constitute an entirely new justice dimension or whether an argument could be made for it to be a significant category within either of the more well established dimensions of justice within the framework of transitional justice.

5.5. Convergence and Divergence

Environmental transitional justice movements across Europe share a common reparative ethos yet adapt their narratives, tactics, and alliances to distinct historical experiences of harm. Everywhere, activists foreground ecological repair as justice—whether restoring floodplains, replenishing aquifers, protecting ancient woodlands, or halting radioactive contamination. This universal commitment is paired with a preventative orientation: nature-based flood defenses, illegal-well closures, forest-clearing moratoria, and uranium bans all seek to avert the repetition of past injustices.

Institutional reform is another shared demand, but historical trajectories shape its substance. In the Ahr Valley, reform targets civil-protection protocols after sudden climate disaster, while in Doñana it addresses decades of corrupt water governance. Hambach mobilizations expose systemic collusion between energy policy and fossil capital, whereas Retortillo campaigns foreground regulatory negligence and democratic deficits. Legal strategies likewise diverge: water cases passively reference EU rulings, while mining conflicts deploy litigation offensively to stall projects, reflecting differing levels of institutional trust.

Narratives and mobilization styles also follow historical context. Water struggles adopt technocratic framings rooted in science and EU compliance, fostering cooperative alliances and long-term planning forums. Extractive protests, by contrast, use moral urgency—“climate violence,” “nuclear colonialism”—to galvanize broad but often temporary coalitions. Whereas floods triggered volunteer brigades and solidarity protests, groundwater decline relied on petitions and scientific expertise; mining battles emphasized high-visibility direct action and courtroom defense.

Despite these divergences, all movements translate local experiences of transitional injustice—sudden catastrophe, gradual degradation, or imposed extraction—into claims for ecological and social repair. This dynamic interplay shows how environmental justice simultaneously converges on shared mechanisms of restoration, prevention, and reform, while diverging in discourse, mobilization, and coalition-building according to the historical legacies of harm.

5.6. Concluding Remarks

Across the four cases, environmental justice movements mobilized transitional justice mechanisms in nuanced and adaptive ways. Reparations and institutional reform were prioritized across the board, though framed differently depending on whether harm was acute, chronic, or imposed. Legal mechanisms and truth-telling were selectively used, with significant gaps in community-led narrative spaces. Strategies—discursive, tactical, and organizational—varied not just by ideology but by local histories, target institutions, and the visibility of harm. The comparative approach reveals that there is no one-size-fits-all model for environmental transitional justice. Instead, the most effective movements are those that align historical grievance with forward-looking reform, combine moral and technical frames, and leverage multi-scalar coalitions to shift both discourse and policy.

6 Conclusion

This research set out to examine how social movements across different European regions mobilize narratives of environmental and transitional justice to demand acknowledgment and reparations for historical ecological damage, and what regional differences emerge in their strategies. The study was grounded in four distinct yet comparable cases: Hambach Forest and the Ahr Valley floods in Germany, and Doñana Aquifer and the Retortillo Uranium Mine in Spain. Each case presented unique configurations of ecological harm, actor coalitions, and institutional contexts, yet all revealed the growing relevance of transitional justice as a framework for addressing environmental grievances.

The objectives of the study were threefold: first, to identify the specific demands and visions articulated by environmental justice movements in relation to transitional justice principles; second, to understand how local histories of ecological harm and institutional failure shape those justice narratives; and third, to explore the strategic variations—discursive, tactical, and coalitional—that differentiate environmental mobilizations across regional settings. By applying a case-based comparative analysis and a coding framework grounded in transitional justice categories, this research has offered insights into the evolving repertoires of justice advocacy in contemporary European environmental movements.

6.1. Key Findings

Across all four cases, movements invoked a core set of transitional justice frames: calls for reparations (both material and symbolic), institutional reform, participatory governance, and, in some cases, truth-seeking mechanisms. However, the specific emphasis placed on each category varied depending on the nature of harm, actor configuration, and political opportunity structures.

In the Ahr Valley, the devastating 2021 floods catalyzed demands for infrastructure reform and equitable reconstruction, alongside moral narratives of climate injustice and historical government negligence (Amnesty International Deutschland, 2021; WWF, 2024). In Spain, Doñana's environmental mobilization was structured around water justice, ecological restoration, and participatory governance. Organizations like WWF España, SEO/BirdLife, and Fundación Nueva Cultura del Agua emphasized hydrological truth commissions and EU legal compliance as essential components of reparative justice (WWF, 2023; del Moral, et al., 2023).

In Hambach Forest, climate justice and coal phase-out emerged as dominant frames. Movements like Ende Gelände and Fridays for Future emphasized the moral dimensions of intergenerational harm caused by fossil fuel extraction, while NGOs such as BUND and NABU added technical and ecological expertise to advocate for forest protection and biodiversity compensation (Ende Gelände, 2018; BUND, 2020). The Retortillo case, meanwhile, was heavily shaped by concerns over environmental liability, procedural exclusion, and health protection—resulting in a justice repertoire that emphasized local referenda, restitution funds, and criminal investigations into licensing processes (Ecologistas en Acción & Equo, 2016; Amigos de la Tierra, 2020).

Despite these differences, one key commonality emerged: all movements reframed environmental degradation not as isolated policy failures but as legacies of systemic injustice, requiring mechanisms typically associated with transitional justice—truth-seeking, acknowledgment, accountability, and institutional transformation (Teitel, 2000; McCauley & Heffron, 2018).

6.2. Contributions to Scholarship

This research contributes to the growing literature at the intersection of environmental and transitional justice in several ways. First, it expands the scope of environmental justice beyond distributional and recognitional dimensions by incorporating truth, memory, and reparative processes. In doing so, it aligns with recent calls to “historicize” environmental harm and integrate it into broader frameworks of transitional accountability (Brock, 2020; Duygan & Flanagan, 2021).

Second, the study contributes to broadening application of transitional justice theory beyond post-conflict or post-authoritarian contexts. By demonstrating how transitional justice principles are used by civil society to address chronic environmental harm—particularly in contexts of industrial extraction, climate inaction, and regulatory negligence—it provides a new lens for analyzing ecological claims to justice. The findings suggest that transitional justice, when localized and environmentally contextualized, offers a powerful vocabulary and set of tools for redressing legacies of socio-ecological harm.

6.3. Policy and Practical Implications

The results of this study point to several important implications for policy design and institutional reform. First, the adoption of truth-seeking mechanisms—such as climate or hydrological truth commissions—can play a vital role in acknowledging the systemic roots of ecological degradation. These mechanisms help formalize collective memory and serve as a basis for restorative policy design.

Second, the idea of reparations must be expanded to include ecological dimensions. This means not only financial compensation for affected communities but also habitat restoration, ecosystem recovery, and legal restitution for non-human actors. Reparative justice in environmental contexts should integrate both distributive and ecological outcomes.

Third, participatory governance—through mechanisms like water councils, citizen assemblies, or referenda—must be seen as a cornerstone of environmental justice. The legitimacy of environmental decision-making depends on procedural fairness, especially when dealing with historically marginalized or ecologically dependent communities.

Lastly, institutional reform remains essential. Many movements demand stronger regulatory oversight, more transparent environmental impact assessments, and greater enforcement of existing EU directives. Governments at all levels should treat these demands not as adversarial claims, but as essential contributions to democratic accountability in environmental governance.

6.4. Avenues for Future Research

Theoretically, this study contributes to both environmental justice and transitional justice scholarship by demonstrating how justice can be operationalized in environmental conflict as a multi-layered, historically grounded, and strategically adapted agenda. The inclusion of institutional reform, truth-seeking, and ecological restitution as transitional justice mechanisms advances existing frameworks (McCauley & Heffron, 2018; Teitel, 2000).

Building on these findings, future research should explore how environmental transitional justice narratives emerge and evolve in other European contexts—especially in Eastern and Southern Europe, where post-industrial legacies and socio-economic inequality may produce different mobilization patterns. Comparative research that integrates post-colonial environmental justice and indigenous epistemologies could further expand the framework. Moreover, longitudinal studies could assess whether the justice demands articulated by movements translate into concrete institutional or policy change, or whether they become absorbed into existing governance regimes without meaningful transformation. Lastly, further research could look into the possibility of preventative justice as an additional justice dimension if environmental concerns get further integrated into traditional justice or if it conceptually could be a sub concern of restorative justice.

6.5. Limitations and Future Directions

This study is limited by its regional focus (Germany and Spain) and reliance on textual and framing analysis rather than ethnographic or longitudinal fieldwork. Additionally, because mobilization was recent, evidence of long-term outcomes is preliminary. Future comparative research should examine other European regions and extend into post-mobilization phases, evaluating whether justice frames translate into structural change.

6.6. Final Reflection

This research shows that environmental movements across Europe are increasingly turning to transitional justice frameworks to articulate their visions of redress, recognition, and reform. Whether demanding reparations for flood victims, ecological restoration for depleted wetlands, or accountability for extractive industries, these movements construct sophisticated justice narratives that connect local harm to broader systemic and historical dynamics. As ecological crises intensify, so too will the calls for truth, accountability, and reparative justice. Recognizing and supporting these demands is essential—not only for the sake of justice, but for the resilience and sustainability of democratic environmental governance in Europe.

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