

Toxic dispossession and environmental violence in Latin America

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Abstract

The emission of pollutants from industrial, extractive (mining and hydrocarbons), and corporate agricultural activities exacerbates environmental degradation, endangering sustainable living conditions for humans and more-than-humans. Growing concerns revolve around the chronic and acute exposure to hazardous substances, often leading to compounded, cumulative, and irreversible consequences in socio-ecosystems and human health. Yet, resorting to the anthropogenic origins of socio-ecological damages resulting from widespread contamination does not fully elucidate the intricate biopolitical and geopolitical dynamics underlying the intoxication of *cuerpxs-territorixs* [bodies-territories]. This Special Section comprises five articles that leverage existing scholarship in political ecology and related fields to critically analyze the political ecologies of toxic dispossession, socio-ecological degradation, and forced environmental changes driven by extractivism. Drawing on the analysis of different cases from Latin America, the authors elucidate how environmental violence, toxic dispossession, and environmental suffering root in the extractive and predatory models rooted in colonial legacies, unresolved racial, ethnic and gendered inequalities, and the expansion of contemporary capitalism in the Global South.

Key words: toxic dispossession, slow violence, environmental violence, necropolitics, extractivism, *cuerpxs-territorixs*

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Resumen

La emisión de contaminantes provenientes de actividades industriales, extractivas (minería e hidrocarburos) y agrícolas-corporativas exacerba la degradación ambiental, poniendo en peligro las condiciones de vida dignas para los humanos y no humanos. Una creciente preocupación viene girando en torno a la exposición crónica y aguda a sustancias peligrosas, que a menudo tiene consecuencias graves, acumulativas e irreversibles en los socio-ecosistemas y la salud humana. Sin embargo, recurrir a los orígenes antropogénicos de los daños resultantes de una contaminación generalizada no aclara del todo las intrincadas dinámicas biopolíticas y geopolíticas que subyacen a la intoxicación de *cuerpxs-territorixs*. Esta Sección Especial comprende cinco artículos que aprovechan los estudios existentes en ecología política y campos relacionados para analizar críticamente las ecologías políticas del despojo tóxico, la degradación socioecológica y los cambios ambientales forzados impulsados por el extractivismo. A partir del análisis de diferentes casos en América Latina, los autores dilucidan cómo la violencia ambiental, la desposesión tóxica y el sufrimiento ambiental son una consecuencia directa y lógica de modelos extractivos y depredadores arraigados en legados coloniales, desigualdades raciales, étnicas y de género no resueltas y en una expansión del capitalismo contemporáneo en el Sur Global.

Palabras clave: despojo tóxico, violencia lenta, violencia ambiental, necropolítica, extractivismo, *cuerpaxs-territorixs*

Resumo

A emissão de poluentes de atividades industriais, extrativistas (mineração e hidrocarbonetos) e agrícolas corporativas exacerba a degradação ambiental, colocando em risco condições de vida dignas para seres humanos e não humanos. Uma preocupação crescente tem girado em torno da exposição crônica e aguda a substâncias perigosas, que muitas vezes tem consequências graves, cumulativas e irreversíveis nos ecossistemas sociais e na saúde humana. No entanto, recorrer às origens antropogênicas dos danos resultantes da poluição generalizada não esclarece totalmente a intrincada dinâmica biopolítica e geopolítica que está por trás da intoxicação dos *territórios-corpos*. Esta Seção Especial é composta por cinco artigos que se baseiam em estudos existentes na ecologia política e em campos relacionados para analisar criticamente as ecologias políticas da desapropriação tóxica, da degradação socioecológica e da mudança ambiental forçada impulsionada pelo extrativismo. Com base em estudos de caso da América Latina, os autores elucidam como a violência ambiental, a desapropriação tóxica e o sofrimento ambiental são uma consequência direta e lógica de modelos extrativistas e predatórios enraizados em legados coloniais, desigualdades raciais, étnicas e de gênero não resolvidas e uma expansão do capitalismo contemporâneo no Sul Global.

Palavras-chave: expropriação tóxica, violência lenta, violência ambiental, necropolítica, extrativismo, *cuerpaxs-territorixs*

1. Toxic dispossession and environmental violence in Latin America

Environmental degradation and damage to *cuerpaxs-territorixs* [bodies-territories] result from the increasing pollutant burden generated by various resource-intensive and large-scale production models. This is a phenomenon in which the main industrial, extractive (mining and hydrocarbons), and corporate agricultural activities generate irreversible changes and harm in local socio-ecosystems. The release of pollutants such as nitrogen (N) and phosphorus (P) in industrial agriculture, mercury (Hg) in gold mining, and hydrocarbon compounds (PAHs) in petrochemicals not only generate chronic and acute impacts from the singular effect of each of these substances, but there is also growing concern among scientists about the "cocktail" effect in which different mixtures produce combined and cumulative outcomes (Le Magueresse-Battistoni *et al.*, 2018; Esbaugh *et al.*, 2018). The complex interactions between environmental contamination and health create metabolic disturbances even below sublethal toxicity levels, raising concerns among regulatory and public health policy makers (Briggs, 1999; Sarigiannis & Hansen, 2012). Recently, a study examining nine "planetary boundaries" has reported that humans have transgressed six out of nine boundaries that are required for the Earth to continue to exist in a "Holocene-like" state, that such transgression has accelerated since 2015, and that the systemic effects are the least known and of greater concern due to the growing and irreversible destabilization of the planetary balance (Richardson *et al.*, 2023).

The simultaneous presence of vulnerabilities linked to impoverishment, limited access to fundamental sanitary services, and the compounding effects of toxic substances are crucial axes of environmental degradation and represent socio-ecological pressures that could push the planet beyond a safe habitat for humanity. But the explanation of the anthropogenic origin of the socio-ecological damages driven by the dispersion of intoxicating chemicals is not enough to fully comprehend the intricate biopolitical and geopolitical dynamics underlying environmental violence. Instead, a political ecology perspective entails directing critical attention towards unpacking the scale, speed, simultaneity, and intricacies of contemporary capitalist economic expansion – often referred to as the Capitalocene (Haraway, 2015) – that is deeply entrenched in the socioecological pressures deployed by industries, corporate mining, and large-scale agriculture. Within this dynamic, the Global South occupies a central position for analysis given its continued role, after centuries of enclave economies and extractivism, as a pivotal region for the expansion of 21st-century capitalism. Research on Latin America portrays the region as a global epicenter of raw material extraction, the re-primarization of national economies, and the deepening of corporate private accumulation at mining and agrarian frontiers (Ahumada, 2019; Cooney, 2021). Political ecologists have raised important questions and debates about the resulting environmental conflicts and uneven processes of dispossession that have deprived already impoverished local communities of adequate access to clean and safe environments.

Indeed, a crucial aspect of analyzing intoxication processes involves scrutinizing the link between conditions of structural precariousness and exposure to hazardous substances, thereby connecting vulnerability factors that can potentially lead to syndemic effects that disproportionately impact impoverished, gendered, and racialized populations (Vélez-Torres & Méndez, 2022; Castillo, 2016, 2024). The intoxication of *cuerpxs-territorixs* creates, on one hand, sacrifice zones (i.e. Lerner, 2010), and, on the other hand, populations deemed expendable based on their differences in social class, race, ethnicity, and gender roles. In Latin America, a pioneering study is that of Auyero and Swistun (2008, 2009), which examines the experiences of environmental degradation, intoxication, and health effects among residents of Villa Inflamable, an impoverished locality 4 km from the city of Buenos Aires, Argentina. This ethnography marks the beginning of an area of social and interdisciplinary studies on pollution in the region. It not only investigates the pollutant loads in different environmental matrices such as soil, air, or water, and the specific conditions of environmental or occupational exposure to petrochemicals, but also the social and power dynamics that intersect with the intoxication of the *cuerpxs-territorixs*.

In this Special Section, we build on this existing scholarship to expand critical perspectives on toxic dispossession, socio-ecological degradation, and forced environmental change driven by extractivism. We focus on new and old violence that operates to hegemonize this trend of private accumulation, under legal, para-legal, and illegal coercive mechanisms, complicating the constellation of actors, interests and responsibilities that generate uneven environmental change. The State acts as one among many actors vying for control of territories and natural resources in order to expand mining and agrarian frontiers, assuming an important but often ignored responsibility for the perverse effects of economic development. In this context, local and national trajectories of colonialism, capitalism and patriarchy are crucial to understanding environmental conflicts, while community struggles for territory, recognition, and dignified life need to be considered milestones of environmental justice.

The Special Section consist of five critical articles that, working in political ecology and beyond, interrogate processes of environmental degradation, pollution and deprivation in Latin America, with a special interest in capitalist-driven agrarian and mining frontiers, as well as the role of the State, transnational actors, and illegal networks and economies in such processes. Examining the expansion of the Soy frontier in Paraguay, the work by Ezquerro-Cañete (2024) unpacks the twin forces of environmental violence and toxic dispossession enacted by the constant drift of glyphosate in Paraguayan monocultures. This scholarship shows the slow death created by the chronic exposure to agrochemicals, and the direct and symbolic violence exercised against social leaders confronting the corporate expansion of the Soy agribusiness. The article by Vélez-Torres, Moreno-Moreno and Hurtado (2024) compares agronomic models for legal crops and illegal coca and marijuana in the south of Colombia, finding that illicit crops utilize fewer and less toxic types of pesticides compared to legal crops, which are rooted in the Green Revolution. In addition to scrutinizing the gendered exposure to pesticides,

this work challenges the stigma of harm associated with illegalized crops and cultivators, thus questioning the idea and practice of criminalization.

Critically addressing the landscapes of mining intoxication, the article by Lugo-Vivas (2024) questions the narratives of progress employed by official extractivist discourses, instead arguing that there is a slowly-dosed and often silent violence damaging environmental and health conditions in the coal mining corridor of Cesar, in the Colombian Caribbean. Lugo-Vivas (2024) argues that racialized and gendered environmental suffering consists of high levels of toxic uncertainty, particularly affecting women, that are intricately linked with phenomena such as armed violence, forced displacement, and extermination through paramilitary actions. Moving to the expansion of the gold-mining frontier in Colombia, in his article Kaufmann (2024) addresses the ubiquity of mercury and its cumulative and negative effects on human health. He questions the efficiency of the Colombian government's mercury ban, and the contested governance of mercury by artisanal and small-miners from historically marginalized geographies.

Finally, the article by Castillo (2024) addresses toxic experiences [*experiencias tóxicas*] and environmental suffering [*sufrimiento ambiental*], analyzed through the roles and discourses of women in five cases of socio-environmental conflict in Chile. It presents ethnographic research on long-standing conflicts stemming from environmental degradation, whether linked to waste management or high-impact industrial activities. A novel contribution, alongside the gender perspective on intoxication experiences, is the analysis of the leadership and active public role of women against the reproduction of social and environmental injustices.

The authors in this Special Section show that environmental violence and toxic dispossession in the Global South are yet another expression of extractive and predatory models that operate as a product of colonial legacies, unresolved inequalities, and a patriarchal history that has consolidated a culture of homogeneity and financialization of all material and even spiritual goods (Vélez-Torres & Lugo-Vivas, 2021). The accelerated extraction of various resources (mineral, agricultural, forestry, water, wind, or petrochemical) in the Three Great Basins: Amazon, Congo, and Borneo-Mekong-Southeast Asia (Rainforest Foundation, 2023), among others, along with the consolidation of increasingly intricate alliances between criminal, state, and corporate actors in the rush to exploit and deplete these frontiers (Ballvé, 2020; Devine *et al.*, 2021; Sauls *et al.*, 2022), suggests that the issue is more profound than previously assumed. There exists a hegemonic capitalist culture, comprising collective action, institutional frameworks, and bureaucratic architectures, that thrives on and benefits from permeable boundaries between criminal and legal activities. This collective endeavor perpetuates a rapacious environmental transformation geared towards corporate solutions and capitalist profit, rapidly and irreversibly extinguishing "the web of life" (i.e. Capra, 1996).

A central contribution of this Special Section to the existing literature on the political ecologies of contamination lies in demonstrating, across various cases, the perverse feedback loop created by:

- 1) State actions and inactions that perpetuate impoverishment, even in instances where official discourse promotes progress and development;
- 2) military actions, either legal or para-legal, which mobilize and safeguard corporate mining and agricultural projects; and
- 3) the pollutant burdens that chronically or acutely cause socio-ecological damage, often irreversibly.

These are not isolated cases of violence; therefore, their compounded analysis, considering their intricate mechanisms and compounded consequences, is paramount. We see this in a range of cases, from the presence and dissemination of various chemical agents derived from the exploitation of gold or 'green' metals (Kauffman, 2024), to the increasingly toxic load of hazardous fertilizers and pesticides on licit crops and their impact on families transitioning illegalized economies to legality (Vélez-Torres, Moreno-Moreno & Hurtado, 2024).

Environmental, armed, and structural violence are inseparable from each other. The perpetuity of the environmental debacles associated with coal in Colombia and soy in Paraguay cannot be understood without the existence of paramilitarism and the systematic extermination of social leaders and displacement of entire communities in both countries (Lugo-Vivas, 2024; Ezquerro-Cañete, 2024). The incremental toxic burden in

the transition from illicit to licit crops cannot be divorced from a history of state, para-legal, and corporate subjugation and terror in South and Central America, as well as of a policy of criminalization and incarceration targeting the most vulnerable populations whose impoverishment has forced them to resort to illegalized economies as a last resort.

Notably, all the articles align in illustrating the presence of elevated levels of pollutant burdens, societal roles exposing specific groups to contaminants, and a growing sense of uncertainty among women, ethnic populations, and the most economically disadvantaged rural residents. This indicates that toxic dispossession in Latin America is deeply influenced by legacies of oppression, marginalization, and patriarchal and colonial violence. Moreover, it suggests an accumulation of disadvantages and vulnerabilities that underpin the environmental suffering examined in each article. All of the above leads us not only to a path of slow violence, but to a state of systemic necropolitics that performs as the reverse of biopolitical logics in sacrificial risk zones (Swistun, 2020). And in many contexts, violence ceases to be slow, silent and dosed – as environmental violence has traditionally been understood (Nixon 2008) – and becomes public, visible and with a high degree of spectacle. Necropolitics appears then in a permanent state, affecting directly and most strongly racialized populations, ethnic communities, women, youth, LGBTQIA+ groups, trans voices and those with special abilities and impaired conditions (Davies, 2018, 2019; Mbembé & Meintjes, 2003; Meszaros, 2018). This Special Section unequivocally condemns such manifestations of violence, illuminating the ongoing capitalist depletion of socio-ecosystems and the genocides perpetrated against marginalized communities. Its aim is to foster reflection, further research, and actions guided by the imperative of dismantling the patriarchal, colonial, and persistent environmental suffering prevalent in Latin America and the Global South.

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