

Rebelling Against Violent Regimes: The Case of Lima's Fog Oases

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REBELLING AGAINST VIOLENT REGIMES: THE CASE OF LIMA'S FOG OASES

ABSTRACT:

Sustainability transitions are an increasingly relevant field of research that focuses on the necessary shifts to break away from unsustainable patterns of production and consumption to achieve more sustainable scenarios. Despite being a relatively young field of research, it has made significant progress with emphasis on power, governance, and the geographies of sustainability transitions. However, such progress has failed to fully incorporate the influence of colonialism in the configuration of unsustainable systems – mainly in the Global South – that are often violent and oppressive. In that sense, scholars have recently called for including decolonial and post-colonial approaches in the analysis of sustainability transitions in order to decolonise sustainability transitions. Coloniality, understood as the persistent influence of colonialism, is a fundamental concept to achieve such aim. Building on that concept, this chapter focuses on Lima's fog oases where land-trafficking – a violent regime – transforms a vulnerable ecosystem into an economic asset for capital accumulation. Drawing from semi-structured interviews and documentary analysis, this chapter argues that research on sustainability transitions must put the violence underpinned by coloniality as well as the role of territory on the spotlight. This way, this chapter aims to expanding the discussions on decolonising sustainability transitions.

KEYWORDS:

Sustainability transitions in the Global South, violence in sustainability transitions, decolonising sustainability transitions, modern coloniality, land-trafficking, ecological degradation, fog oases, Peru

Introduction

Sustainability transitions refer to the necessary and fundamental changes that must take place to shift towards more sustainable patterns of production and consumption. As such, sustainability transitions can address urgent global – and local – issues such as climate change, biodiversity loss, and resource depletion (Köhler et al., 2019). One of the most prominent and widely used frameworks to analyse sustainability transitions is the multi-level perspective (MLP). According to the MLP the interactions between the regime, niches, and landscape can explain the transition from unsustainable – or partially sustainable – sociotechnical systems to more sustainable ones (Fuenfschilling and Binz, 2018; Geels, 2019). The regime refers to the dominant configuration of technologies, infrastructures, industries, institutions, organisations, and practices that deliver a societal function (e.g. energy, transport, housing). Regimes operate under a set of rules that are collectively shared and enacted by the elements that compose them (Geels, 2004). While the regime tends to resist change through incremental innovations, niches foster radical change. Despite being less structured and institutionalised than regimes, niches have the potential to disrupt and change the regime through different strategies. The regime-niche interactions take place under the direct or indirect influence of the landscape. The landscape includes the broader physical, political, and economic factors that are beyond the control of the regime and niches (Geels, 2019; Geels & Schot, 2007; Sorrell, 2018).

Non-European case studies have become more present in sustainability transitions research in the last two decades; however, deeper discussions on coloniality, race, and non-Eurocentric epistemologies, especially in the Global South, have not been fully developed (Ghosh et al., 2022). As an attempt to expand those discussions, McGowan and Antadze (2023) call for recognising the dark side of sustainability transitions. They argue that research on sustainability transitions must pay attention to the current manifestations of power imbalances, inequalities, and injustices that result from large historical processes that have often involved oppressed communities and peoples. By the same token, Balanzó-Guzmán and Ramos-Mejía (2023) recommend embracing epistemic diversity as an attempt to enhance sustainability transitions through the inclusion of non-Western knowledges. Clearly, coloniality – the persistent legacy of colonialism in former colonised countries (Quijano, 2000) – appears as a useful lens through which analyse sustainability transitions. A decolonial approach to sustainability transitions could shed light on the different realities in which these transitions unfold while calling for a reflection on researchers' positionality and scholarly stance (Arora & Stirling, 2023; Balanzó-Guzmán & Ramos-Mejía, 2023; Hopkins et al., 2020).

Using a decolonial approach, this chapter focuses on the case of the fog oases in Lima (Peru) where bottom-up conservation efforts struggle to protect a vulnerable ecosystem from land-trafficking – an illegal although highly profitable criminal activity. Land-trafficking turns public land that is inadequate for living into housing by means of – allegedly – collusion with authorities and violence towards residents (Soria & Romo, 2019). According to Flood Chavez and Niewiadomski (2022), land-trafficking is the key driver of ecological degradation in Lima's fog oases. The fog oases are a seasonal ecosystem that provides several ecosystem services to the city including water caption, soil formation, education, and tourism. Despite that, the ecosystem is continuously being transformed into land for housing amid weak governance and institutionalised corruption. By means of interviewing key stakeholders representing local tourism organisations, regional and local authorities, and independent researchers, and reviewing key documents this chapter conceptualises the case of the fog oases using the MLP

in order to identify ‘other relationships’ that are not necessarily noted in and from Western contexts and stances.

The remaining of this chapter consists of five sections. The next two sections discuss how to decolonise sustainability transitions and describes the area of study, respectively, to put the chapter in context. The following section explains the methodology. Before providing conclusions, the chapter presents its findings and discussions subdivided in two sections.

Decolonising sustainability transitions

The perduring oppressive effects of colonisation (i.e. coloniality) have contributed to the emergence, development, and stability of unsustainable patterns of production and consumption (Arora & Stirling, 2023; Ghosh et al., 2022). However, coloniality is often neglected, even in research focused on power (Arora & Stirling, 2023). Paying attention to, for example, the matrix of colonial power (see Quijano, 2000, 2024a) could help to incorporate issues of race and capital hegemony into the analysis of sustainability transitions. In that sense, it becomes necessary to put coloniality on the spotlight in sustainability transitions research to fostering the decolonisation of sustainability transitions. This process requires an epistemic reconstitution (Arora & Stirling, 2023). Quijano (1992) refers to epistemic reconstitution as the process through which an intercultural communication and the interchange of experiences and meanings emerge in opposition to an imposed universal rationality – often Western-focused.

Building on an epistemic reconstitution, any attempt to decolonise sustainability transitions must question many of the core assumptions of sustainability transitions including its common frameworks (Arora & Stirling, 2023; Hopkins et al., 2020) and include other ‘transition discourses’ (see, e.g., Escobar, 2015). However, this does not mean negating the categories and progress done by sustainability transition researchers thus far. Instead, as explained by Quijano (1992), an epistemic reconstitution requires the understanding that Western paradigms need other epistemologies – not in a hierarchical manner though – in order to better grasp the complexities of different realities. Decolonising sustainability transitions can contribute in three ways. First, the recovery of the epistemic plurality that were suppressed by globalisation and colonisation (Escobar, 2015; Ghosh et al., 2022; Hopkins et al., 2020). Second, to acknowledge the locally bounded scope of Western knowledge (Arora & Stirling, 2023; see also Walsh et al., 2024). Finally, to avoid essentialist assumptions about the peoples and other aspects of former colonies (Arora & Stirling, 2023). This way, decolonising sustainability transitions can enhance their transformational effect.

Ghosh et al. (2022) provide three suggestions to decolonise sustainability transitions. The first is to focus on everyday struggle and resistances. These struggles and resistances, especially in the Global South, tend to sow seeds for bottom-up transformations in often frugal and violent environments (Escobar, 2015; Ghosh et al., 2022). Acknowledging these practices can allow researchers to better understand informal institutions that emerge and develop to counterbalance or oppose imposed rules – often derived from formal institutions – on oppressed communities. Here it is important to remark that, at least in Latin America, the formal which is often represented by the state, now exercises its control and power over the territory alongside – or jointly with – criminal organisations (Quijano, 2024b; see also Durand, 2019). For instance, Durand (2019) uses the term ‘capture of the state’ to describe the process through which criminal organisations seize key political positions to secure their economic

growth and territorial control (see also Espinoza, 2020). In that sense, Quijano (2024b) calls for replacing the term 'state' by 'political authority' to acknowledge other forms of political and territorial control that go beyond a 'formal is good – informal is bad' dichotomy. This conceptualisation can contribute to a broader understanding of multi-level governance in urban peripheries where interests over urban land include multiple actors (see Adelina et al., 2020). Flood Chavez and Niewiadomski (2022), for example, imply that environmental governance in some urban peripheries can be influenced by criminal organisations (see also Espinoza, 2020). In that sense, while research on sustainability transitions often call for a stronger state (see, e.g., Swilling et al., 2015), the Latin American context invites to reflect on the dangers of those calls.

The second recommendation is focusing on nuances of local dynamics that can be neglected when copying strategies and solutions transplanted from the Global North (Ghosh et al., 2022). Indeed, while there is a common agreement in the world that radical transformations are required to shift away from global environmental, social, and economic crises, the discourses around transitions vary depending on their context (Escobar, 2015; Ghosh et al., 2022; Hopkins et al., 2020). For instance, European societies aim to shift away from the consequences of advanced capitalism whereas Latin America struggles to escape from extractive policies (Escobar, 2015). In that sense, decolonising sustainability transitions must, on the one hand, *critically disengage* from hegemonic sustainability-related discourses, and on the other hand, incorporate in its analysis the roots and consequences of inequality and power issues in the formation of regimes (Escobar, 2015; Ghosh et al., 2022). Importantly, building on Quijano's (1988, p.68) idea of the "constitution of a new rationality", decolonising sustainability transitions should also pay attention to alternative social practices and institutions, based on reciprocity, solidarity, and equity, that emerge outside – and even against – the capitalistic state (public) and private sector. While Quijano's (1988) argument focus on Latin America, it certainly is applicable to other similar regions. Finally, Ghosh et al. (2022) call for a focus on meaningful and empowering participatory research methods. While this third recommendation is important, this chapter will not elaborate on it as it is beyond the scope of the research. Nonetheless, Ghosh et al.'s (2022) recommendations such as including non-Western academic production, promoting participatory methods, and help building communities of practice are highly relevant.

Building on the above recommendations and reflecting on the role of coloniality in sustainability transitions, Arora and Stirling (2023, p.2) propose six dimensions to situate colonial modernity (i.e., modern societies defined by colonialism; see Chakrabarty, 2002) in sustainability transitions. These dimensions include *assumptions of comprehensive superiority* based on the invention of 'race' as an idea, which has resulted in a 'superior' Western civilisation erasing or displacing other epistemologies, often treated to this day with connotations of 'inferiority.' They also highlight the *appropriation of cultural privileges* primarily by the Global North to the detriment of the Global South through colonial pillages that have fostered increasingly dependent relations between the two in economic, social, and environmental terms, benefiting the former. Furthermore, they point to *assertions of military supremacy* that maintain the status quo of former and emerging empires, which continue to exercise violent and oppressive actions against former colonies, often with racial motivations. The dimensions also encompass the *enforcement of gendered domination*, which leads to structural violence against women, who are disproportionately burdened with caregiving responsibilities for relatives, communities, and the environment within a patriarchal system

shaped by colonialism. Additionally, the authors note the *extension of controlling imaginations* that privilege specific assemblages of institutions and knowledge production, enabling control over the labour of racialised peoples and the sustainability of other-than-modern worlds. Finally, they describe the *expansion of toxic extraction* through the modernisation of Indigenous territories and knowledges, exemplified by projects like hydroelectric dams and open-pit mining, rooted in violent and toxic historical processes that currently underpin sustainability transitions in the Global North.

Hence, incorporating these dimensions and recommendations – not necessarily altogether – could contribute to better understanding *other types* of relationships between regimes, niches, and landscapes as well as the variety of struggles that grassroots communities must overcome to disrupt unsustainable and violent regimes. For instance, they could serve to identify that some regimes – or emerging niches – are underpinned by or reproduce racial or gender hierarchies, violence, unequal exchange, neocolonialism, criminalisation of ‘other’, or a combination of them (Arora & Stirling, 2023). By means of exploring the struggle of local communities to conserve what they consider to be their territory from illegal economic activities driven by a mix of ‘political authorities’, this chapter aims to contribute to decolonising sustainability transitions. To that end, the next section presents the area of study.

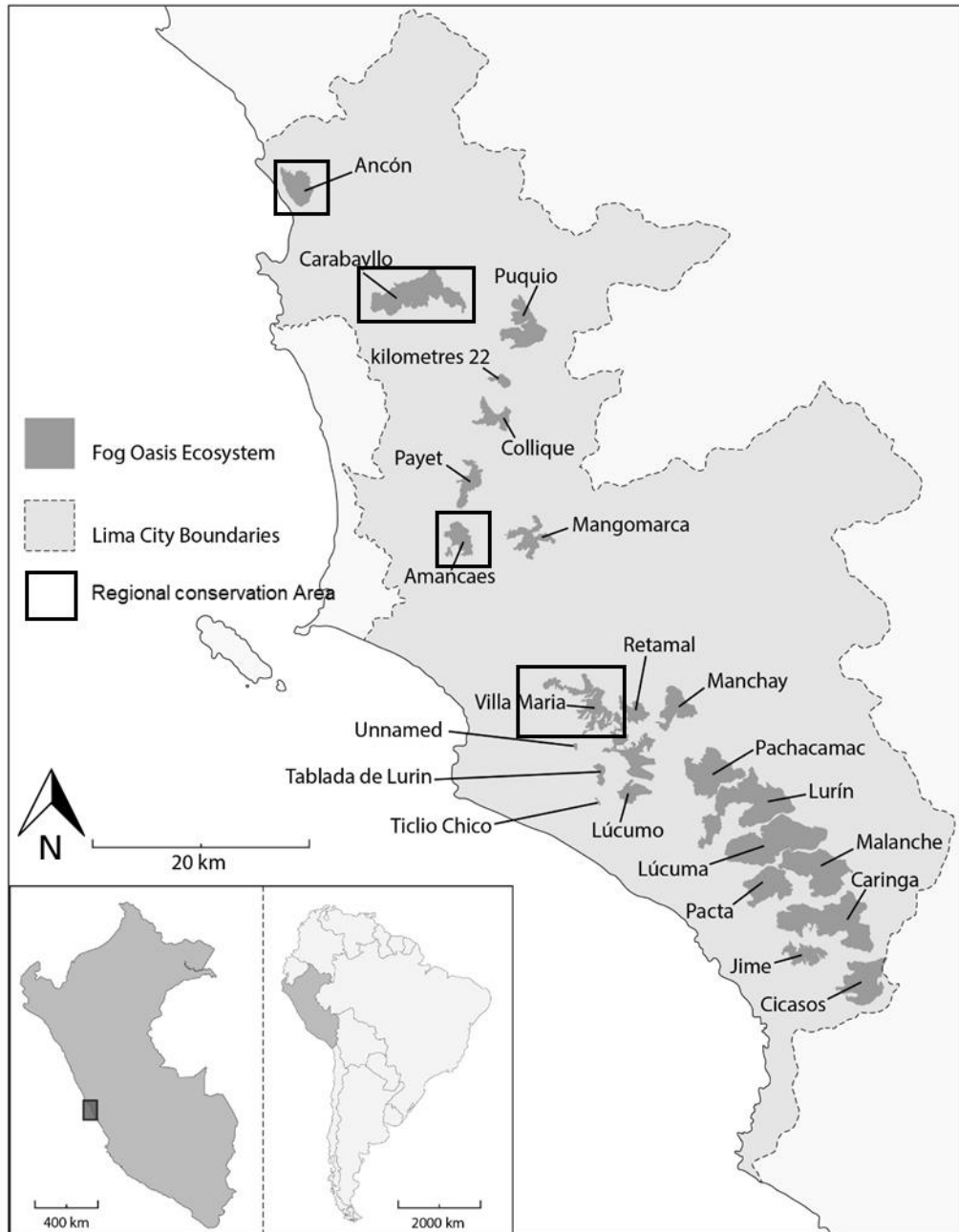
Fog oases in Lima: between ecological degradation and conservation

Fog oases (locally known as *lomas*) are a seasonal ecosystem that extends 3000km along the coast from northern Peru to northern Chile (Moat et al., 2021). This ecosystem is highly biodiverse, especially between July and October when the fog coming from the Pacific Ocean clashes against coastal hills between 200 and 800 m.a.s.l. turning them into area with lush vegetation (Dillon et al., 2011; Manrique Paredes, 2011). The fog oases strongly depend on the interactions between the Pacific Ocean currents, onshore winds, the Andes, and El Niño-Southern Oscillation (ENSO) (Song et al., 2023). Despite its uniqueness and importance due to its biodiversity and provision of ecosystem services, only 4% of its extension is under some type of conservation (Moat et al., 2021).

According to Lima’s Park Service (2014), the most biodiverse section of the fog oases lies in Lima (see also Lleellish et al., 2015). There are 23 fog oases scattered around the city as fragmented green patches (see figure 1). Eisenberg et al. (2014) reported that the fog oases in Lima cover in average 22,000 hectares that can increase during the ENSO (see also Kato, 2018). These green islands have provided several ecosystem services to the Lima’s population for centuries. In fact, the fog oases have been an important source of natural resources such as timber during the Spanish colonial period and, more importantly, a public space for Lima’s inhabitants between the mid-19th and the mid-20th century. During this period, significant festivities took place in different fog oases in Lima where people from different socioeconomic classes gathered. One of the most popular festivities took place in what is now known as *Lomas de Amancaes* until the 1950s (Nieuwland and Mamani, 2017). However, since the early 20th century fog oases began to fade away from the collective mind of Lima inhabitant as non-metallic mines and urban sprawl surrounded them (Chipana, 2013; Nieuwland & Mamani, 2017). According to the EBA Lomas project final report (2021), approximately 38% and 15% of fog oases in northern and southern Lima, respectively, were affected by anthropogenic activities by 2016. Yet, Lima’s fog oases have continued to provide

key ecosystems services including genetic diversity, water capture, pollination, aesthetic impressions, tourism, and recreation (Lima's Park Service, 2014).

*Figure 1: Location and distribution of fog oases and regional conservation area in Lima, Peru
(Source: Own elaboration based on the data gathered by EbA Lomas between 2016-2018)*



Despite their biological and historical importance, the fog oases are highly vulnerable to climate change which is worsened by unsustainable agricultural practices, informal squatter settlements, and land-trafficking (Apedjinou, 2019; Flood Chavez & Niewiadomski, 2022; Lima's Park Service, 2014; Miyasiro & Ortiz, 2016; Nieuwland & Mamani, 2017; Soria & Romo, 2019). The main driver of fog oases' ecological degradation in Lima is land-trafficking which is an illegal economic activity – although highly profitable – dominated by criminal organisations, allegedly, in collusion with local authorities (Flood Chavez & Niewiadomski,

2022; Espinoza, 2020; Ojani, 2022; Soria & Romo, 2019). The latter is not surprising considering that Lima is the second region in Peru with the largest number of authorities involved in corruption (see EbA Lomas, 2022). While land-traffickers do not necessarily aim to target the fog oases, their activities take place mainly in the periphery of Lima where fog oases are located and where the presence of authorities is nearly null – except during national and local elections (Flood Chavez & Niewiadomski, 2022; Kato, 2018). For instance, between 2011 and 2017 one fog oasis – Cerro Negro – disappeared and 322 hectares of another fog oasis – Lomas de Mangamarca (see Figure 1) – were occupied by informal settlements (Eba Lomas, 2022). To better understand the emergence of and the institutionalisation of land-trafficking in the periphery of Lima, it is necessary to review key events in the historical development of Lima. For instance, Flood Chavez and Niewiadomski (2022, p.5) suggest that the emergence of “one [Lima] with conventional urban planning and better access to public services, and one [another Lima] characterised by land invasions, self-help construction, and poor urban conditions” in the 1950s directly contributed to emergence of land-trafficking and the informal occupation of the fog oases (see also Kahatt, 2014; Riofrio, 1991). Figure 2 depicts the latter surrounded by one of Lima’s fog oases. Here it is important to indicate that ineffective urban planning in Global South cities – such as one that has shaped the two Limas – is often an expression of colonial planning characterised by “(...) institutional weaknesses, centralization, and ad hoc planning” (Baffoe & Roy, 2022, p.177).

*Figure 2: Urban sprawl and urban agriculture over one of Lima’s fog oases
(Source: Photograph provided by Roobert Jimenez)*



Nonetheless, as an attempt to neutralise the impact of land-trafficking, local tourism organisations led by people living around the fog oases together with volunteers living in other parts of Lima have emerged in the last decades. These organisations, on the one hand, pressurise the local and regional authorities to take actions against land-traffickers, and on

the other hand, promote the fog oases as a place for tourism and recreation (Apedjinou, 2019; Boscato, 2015; Flood Chavez & Niewiadomski, 2022; Ojani, 2022). For instance, 21 thousand people visited Lima's fog oases in 2015 which increased in 33% by the end of 2019 (EbA Lomas final report, 2021). Organisations, such as these ones, have a strong connection with the local community and, therefore, are key to any strategy that aims tackling local structural issues (see, e.g. Burch, 2021). However, despite being a commendable activity, these organisations struggle to carry out their activities as they do not have enough technical nor financial resources and support and, more importantly, they are constantly threatened by the criminal organisations behind land-trafficking (Flood Chavez & Niewiadomski, 2022; Soria & Romo, 2019). Amid this confrontation, Lima regional authority has declared some of the fog oases as part of a regional conservation area in 2019 which aims to recover its degraded fog oases by 2042 (Contreras, 2023; Peruvian Environmental Ministry, 2019). However, people involved in the design and management of this conservation area have informally reported that its effectiveness is not guaranteed.

EbA Lomas (2022) provides potential solutions towards the effective conservation of the fog oases beyond the creation of conservation areas such as strengthening the organisational skills of local tourism organisations, disseminating the work and efforts of local organisations in mainstream media, involving local organisations in the management of conservation areas, and creating more spaces of dialogue between different levels of government that include local organisations. In turn, Flood Chavez and Niewiadomski (2022) also argue that, on the one hand, local authorities must support local organisations, while on the other hand, regional and national authorities must address the extant weak environmental and territorial governance, structural corruption, and the increasing social housing crisis.

Methodology

This study follows a qualitative case study methodology as they are useful to understand complex social phenomena, especially when it is difficult to distinguish between the object of study and the context (Cresswell, 2014; Yin, 2003, 2002). Qualitative case studies allow an in-depth analysis of a phenomenon from the standpoint and experiences of different actors utilising different kind of evidence such as documents and interviews (Geertz, 2008; Schutt, 2011; Yin, 2003). Importantly, ethical approval for this research was obtained from a reputable research ethics board at the author's institution prior to the fieldwork.

This research draws from 21 semi-structured interviews conducted between June and July 2018 and documentary analysis of key documents produced by EbA Lomas (a United Nations project focused on the conservation of Lima's fog oases between 2017 and 2021) and academic theses. EbA Lomas' documents are publicly available and include a study of perceptions of Lima's fog oases (Institute of Public Opinion, 2017), EbA Lomas final project report (2021), and Behind the Fog (EbA Lomas, 2022). Interviews and documentary analysis allow a data and method triangulation to improve research trustworthiness (see Decrop, 1999). The interview participants were recruited following a purposeful sampling complemented by a snowballing sampling. The participants included representatives from local tourism organisations (10), local authorities (3), regional authority (1), not-for-profit organisations (3), EbA Lomas (2), and independent researchers (2). Originally, the study considered recruiting people involved in land-trafficking; however, following the advice from other participants about personal safety they were not invited. The interview questions focused on four key aspects: the role of different actors in the conservation of Lima's fog

oases, the impact of land-trafficking in the ecosystem and the local organisations, the networking activities across the local tourism organisations, the violence faced by the local organisations, and the opportunities and challenges of conserving the fog oases in Lima.

After being transcribed, all interviews were analysed using Braun and Clarke's (2006) reflective thematic analysis. This analysis method involves six phases (see also Byrne, 2021). The first phase is the familiarisation with the data resulting on the generation of initial codes (second phase) including ecotourism, structural violence, physical violence, land-trafficking, authorities, and housing crisis. These codes led to the identification of overarching themes (third phase) such as violence, housing, and tourism as a political tool that were reviewed in several iterations (fourth phase). The fifth phase (defining and naming themes) was informed by the MLP given its explanatory power in sustainability transitions research. The flexibility of thematic analysis allows the incorporation of theoretical frameworks – such as the MLP – to better address issues pertaining to the research aims (Lawless & Chen, 2019). Three key themes, violent regime, rebellious niches, and detrimental landscape were defined and then reported as findings (sixth phase). The information from the documentary analysis was used to cross-check the information obtained from the interview analysis.

Findings and discussions

Building on the interviews and the documentary analysis, this chapter identifies a dialectic relationship between land-trafficking and local tourism organisations. While the former uses violent strategies to maintain the status-quo that benefits it, the latter emerges as a defying network of social leaders and volunteers using political and organisational strategies to stand against ecological degradation and collusion. Both sides of this relationship are addressed in-depth separately for clarity.

Land-trafficking: a case of violent sociotechnical regimes

Land-trafficking is deeply rooted in the historical development of Lima as pointed by Flood Chavez and Niewiadomski (2022; see also Nieuwland & Mamani, 2017). While its roots can be traced back to the 1950s amid waves of migration and poor urban planning, it is in the 1990s that the land for dwelling in Lima became less available shaping an informal and illegal housing market (Flood Chavez & Niewiadomski, 2022; Kahatt, 2014). As demand for housing increased, this illegal housing market became more profitable attracting more informal organisations that with time accumulated economic and even political power (Espinoza, 2020; Flood Chavez & Niewiadomski, 2022; Kahatt, 2014). Indeed, these informal organisations have established strong links with local authorities in the last decades which have resulted on the configuration of a 'political authority' (see Quijano, 2024b). For instance, seven municipalities where fog oases are located were prosecuted because of collusion with criminal organizations mostly related to land-trafficking (EbA Lomas, 2021). This 'political authority' rather than stopping land-trafficking – and conserve the fog oases – seems to promote it. For instance, an NGO representative indicated that:

(...) the local authorities (...)ignore [the communities living in the periphery] (...) and secretly promote land-trafficking by not enforcing the law or giving permissions for people to take possession of public land (...) despite the fog oases being on hills that are not apt for dwelling (...)

[Interview, June 2018]

Likewise, an independent researcher pointed out that:

(...) from the onset, land-traffickers bribe people [public servants] so that they are allowed [to take possession of public land] (...) this is a perverse economic activity (...) Now, these criminals are clearly aware that once they bribe a public servant, this person is part of the organisation and will not act against them. [Interview, June 2018]

As such, it is possible to conceptualise land-trafficking as a regime that operates mainly in the periphery of Lima illegally appropriating of public land and transforming it into a private asset (i.e. informal development). Being a sociotechnical regime (see Geels, 2019), land-trafficking is composed of a series of elements that interact with each other under a set of rules. The most prominent elements are the criminal organisations and – allegedly – colluded authorities and public servants. As indicated by the interviewees, the latter tend to promote acts that benefit land-trafficking (see Flood Chavez & Niewiadomski, 2022; Soria & Romo, 2019). Another element is the infrastructure and technology that secures the expansion of the controlled territory of land-traffickers such as informal roads as well as the heavy machinery utilised (see Miyasiro & Ortiz, 2016). Economic and political capital are another element that supports the appropriation of public land by these criminal organisations. While the economic capital derives from selling plots of land for informal housing developments, the political capital results from the legal benefits they receive from – allegedly – corrupted public servants (see Durand, 2019; Espinoza, 2020). Another element is culture of violence which the regime exercises over the local communities and non-complementary economic activities (e.g. ecotourism). For instance, as noted by an independent researcher and a representative of a local tourism organisation, land-traffickers destroy research facilities, threat visitors, and destroy tourism infrastructure (see e.g. Flood Chavez & Niewiadomski, 2022). All these elements contribute to stabilising the regime and protecting it from any potential disruptions.

As indicated by Geels (2004), there are a set of rules that are deeply embedded in the regime and explains its stability. In the case of land-trafficking, it is possible to identify three key rules. First, violence is the main way to secure increasing profit. This is an important aspect to highlight following Ghosh et al.' (2023) first recommendation. As noted by various interviewees, land-traffickers continuously threat any person (including authorities) trying to oppose their activities and vandalise any infrastructure related to economic activities deemed as problematic (e.g. ecotourism). For instance, a beneficiary of EbA Lomas describes that "(...) land-traffickers came, destroyed fog-catchment systems, and invaded some parts [of the area they had reforested]...we need more help, land-traffickers advance, they work the entire day" (EbA Lomas, 2022, p.78). In that sense, any form of resistance to protect the fog oases is understood by the land-traffickers as a threat to their accumulation of capital. As a member of one local tourism organisations indicated:

(...) land-traffickers operate at a different level, a person that works with them [i.e. land-trafficker] has contacts, thugs and so on. That is a delicate issue, talk to these people is to put yourself in risk because they get to know you and if they see you again, you do not know what could happen to you." [Interview, June 2018]

Second, land-traffickers are part of a 'political authority'. Considering that "regime rationalities are by no means stable and monolithic, but subject to contestation and power battles by interested actors and therefore continuously socially constructed" (Fuenfschilling & Binz, 2018, p.736), it is expected that land-trafficking stabilises itself through strong and persistent links with some local authorities and key public servants. For instance, EbA Lomas (2021, p.58) reports that land-trafficking has become more intensive due to the apparent "participation of public servants in local governments and congresspeople". In that sense, it is possible to argue that the process of 'capture of the state' (see Durand, 2019) is an incremental innovation conducted by land-traffickers to stabilise their regime. Indeed, as argued by Quijano (2024b), the state does no longer has the monopoly of violence as, in this case, it is now shared with criminal organisations. This 'political authority' benefits both groups (i.e. criminal organisations and involved authorities). On the one hand, criminal organisations obtain control over the territory, while on the other hand, involved local authorities obtain political benefits in the shape of votes. As explained by a representative of EbA Lomas:

(...) one tends to focus on the 'invader', in the person who builds a precarious house
 (...) but that 'invader' appears because there is a series of permissive activities
 determined by authorities that even promote these types of occupations. So, there is
 a direct relationship (...) Unfortunately (...) by permitting these activities, [authorities]
 obtain social and political capital (...)"
 [Interview, June 2018]

And third, land-trafficking is a highly profitable business worth the risk. As explained by an independent researcher, land-trafficking is an economic activity that can result in a return that no bank can offer (see Flood Chavez & Niewiadomski, 2022). Then, it is understandable that even people formally living nearby the fog oases can get involved into this activity which weakens and reduces legitimacy to any grassroots organisation trying to oppose land-trafficking. As commented by a member of a local tourism organisation:

(...) I have heard many people in the bus or in the local market that do not know that
 I work with the local tourism organisation (...) talking about a plot of land that they
 have found [being offered] (...) or asking about land for sale (...) all in order to gain
 easy money (...)"
 [Interview, June 2018]

Finally, it is necessary to elaborate on the aggravating influence that the landscape has on the regime. The ongoing housing crisis in Lima together with the extant weak environmental governance affecting the fog oases (see Flood Chavez & Niewiadomski, 2022; Miyasiro & Ortiz, 2016; Olortegui, 2001) and the relatively ignorance about the fog oases and their ecological and cultural significance (see Nieuwland & Mamani, 2017; Chipana, 2013) can be considered as key features of the landscape. For instance, 58% of Lima residents living far from the fog oases perceive them as merely hills and only 6% considered them as a tourist destination (Institute of Public Opinion, 2017). Similarly, according to EbA Lomas (2022), the general perception of fog oases in Lima before 2016 was of marginal and dangerous spaces. Even more, the fact that the emergence of the two Limas where one – in a general wealthier context – benefited from a more active role of the state and the other – in general deprived conditions – developed under a self-regulated process that later was taken by a new 'political authority', denotes a persistent colonial feature in Peru: centralism (see, e.g. Kahatt, 2014;

Riofrio, 1991). Such persistence element has resulted in a landscape that systematically neglects the periphery of Lima creating – more directly than indirectly – adequate conditions for land-trafficking to unfold which is aggravated by a growing housing crisis (see EbA Lomas, 2022, p.116). As such, this *colonial landscape* tends to aggravate the impact of land-trafficking on the fog oases and increasing the vulnerability of the actors and organisations rebelling against them.

Rebelling against violent regimes: everyday struggles and strategies of resistance

During the different waves of migration to Lima, initially informal settlements build their houses on hills where fog oases located (see e.g. Kahatt, 2014). With time, these settlements organised themselves in order to demand formal tenancy of their houses and territory and public services (e.g. water, sewage, electricity) with successful results during the 1970s and 1980s. Despite the 1990s neoliberal measures disassembled the strong organisational capacities of various settlements in the periphery of Lima (see Olortegui, 2001), some organisational aspects remained. As a result, a number of settlements organised for new objectives such as recreational spaces, security, and, in the case of the ones nearby the fog oases, conservation (see Flood Chavez & Niewiadomski, 2022; Olortegui, 2001). According to EbA Lomas (2022), local tourism organisations emerged during the 1990s to promote the conservation of fog oases. Some of them motivated by the willing to protect a green area that reminds them of the rural areas they came from as indicated by a member of one tourism organisation. A member of a different tourism organisation acknowledged the important role of university students that visited the fog oases and some former authorities that provided information about the ecological relevance of the fog oases. All in all, these organisations have achieved a number of milestones towards the conservation of Lima’s fog oases according to the interviewees. For instance, the organisations have raised awareness about the importance of fog oases for Lima’s inhabitants, promoted the incorporation of fog oases conservation in the agendas of political parties, monitored the activities of local and regional authorities to ensure they are acting lawfully, advocated for the creation of the EbA Lomas project as a way to promote fog oases research and conservation, and partially supported the creation of a regional conservation area. In some cases, local authorities only realised about the importance of fog oases after been approached by local tourism organisations as mentioned by a representative of a local authority:

(...) they [local tourism organisations] visited us and gave us information about the ecosystem [fog oases] because, until 2015, the environmental office in the municipality had very little data (...) if it wasn’t because of the organisations that talked to us, we wouldn’t have known about studies done by other national authorities that we later requested (...)
[Interview, June 2018]

These achievements are commendable considering that most of these organisations do not have sufficient financial resources nor technical support (see, e.g., Apedjinou, 2019; Kato, 2018). Yet, 55% of Lima residents indicated that they had not visited Lima’s fog oases being the lack of information about access (28.8%) and infrastructure (12.2%) some of the main reasons (Institute of Public Opinion, 2017). Alliances between these organisations and NGOs, academics, and voluntary organisations were key to fill these gaps. For instance, a representative of an NGO indicated that:

(...) [financial and technical support] is something those organisations are lacking (...) some of them do have more technical support than others, some others have more financial resources, but at the time of making decisions those might not be the most adequate (...) for instance, when making a legal complaint (...) many of these organisations feel alone, without support which weakens their actions (...) [Interviewee, June 2018]

Yet, these organisations require further and continuous support to minimise negative impacts on the fog oases and to enhance their organisational skills. For instance, a representative of EbA Lomas and an independent researcher pointed out that it is possible that the paths and the infrastructure they build in the fog oases could be, to some extent, detrimental to the ecosystem if there is no adequate technical guidance. Likewise, Kato (2018) highlights that the tourism organisations struggle to create strong alliances with each other – although EbA Lomas (2022) highlights the creation of ‘Red de Lomas’ which is a network of local organisations towards the effective conservation of Lima’s fog oases. While these organisational aspects can influence the disruptive power of these niches (see Fuenfschilling & Binz, 2018; Geels, 2004), the biggest challenge to these organisations is the land-trafficking violent regime. Indeed, these local tourism organisations are subject to direct and structural violence ranging from verbal life threats, harassment, and being treated with disdain by authorities and even by neighbours that – allegedly – are involved in land-trafficking. As a member of an NGO explained:

(...) many of these organisations face problems everyday with land-trafficking, insecurity, and the desire to conserve the fog oases (...) these organisations feel isolated because they are fighting against land-trafficking, they are invisible to the local authorities (...) [Interview, June 2018]

Likewise, members of local tourism organisations have described the direct violence they face every day from land-traffickers. For instance, one member detailed:

(...) [our organisation] has taken charge of things we didn’t imagine till this day, and now we are all life-threatened, but we are there, we don’t know until when, but we are still there (...) because we cannot leave the job half done, we are not afraid, I think if we have joined to keep working together with volunteer and young people, why not continuing? [Interview, June 2018]

By the same token, another member described:

(...) [land-traffickers] mainly intimidate and threat us (...) one cannot dialogue with them (...) we [local tourism organisations] feel constantly under threat by them, one cannot show up in some areas (...) [Interview, June 2018]

Despite the violence and power imbalances, these organisations have managed to use ecotourism as a tool to disrupt the violent regime that land-trafficking has configured (see Figure 3). As explained by Flood Chavez and Niewiadomski (2022), local tourism organisations have transformed ecotourism into a political strategy to acquire some political power over the territory by means of inviting key authorities to their tourism activities. This strategy has

helped them to gain political recognition in the territory where they operate, enhance the dialogue between different levels of government, commit regional and national authorities to the conservation of the fog oases, and, more importantly, denounce the impact of land-trafficking on the fog oases. Considering that 38% of people residing nearby the fog oases consider activities derived from land-trafficking (31% illegal appropriation of land and 7% informal housing sales) as dangerous and detrimental (Institute of Public Opinion, 2017), these local organisations have also become an important political representative of their territories.

*Figure 2: Ecotourism in one of Lima's fog oases led by a local tourism organisation
(Source: Photograph provided by Roobert Jimenez)*



The continuous violence under which these organisations operate can be mapped into Arora and Stirling's (2023) dimensions of modern coloniality, namely the appropriation of cultural privileges and expansion of toxic extraction. The former can be seen in ecological terms as the fog oases have produced ecosystem services and resources that have been pivotal for the development of Lima as the capital of Peru. While these fog oases continue to produce ecosystem services for the entire city (e.g. production of soil, water capture, pollination), the ones that are the most involved in their conservation – and therefore more vulnerable to the violence of land-traffickers – are the local tourism organisations. The latter is more evident as the transformation of the fog oases to which local communities feel identified with unfolds in a violent and toxic manner for more than three decades. Nonetheless, an element which is absent from Arora and Stirling's (2023) dimensions is the territory. Considering that power over the territory is a result of large historical process of dispossession and occupation, this case study suggests that the extension of violent appropriations of the territory is another dimension worth exploring in further research.

Finally, following Ghosh et al.'s (2022), it is important to recognise the effort, courage, and innovative spirit demonstrated by the people within these organisations. Despite the complex, challenging, and unjust landscape, these organisations have established an important strategy to attempt to disrupt a regime that seems, in some cases, too powerful. Yet, the term disrupt falls short considering that their life is at risk. Therefore, as an attempt to recognise their courage and strength, this chapter refers to them as *rebellious organisations* because they fight not only against a strong violent regime but also against an unfair and still colonial landscape.

Conclusions

This chapter has empirical and theoretical contributions. Regarding the former, this chapter reports three main findings informed by Ghosh et al.'s (2022) recommendations towards decolonising sustainability transitions. First, land-trafficking is a regime that utilises violence to stabilise its operations and deter any potential competitor or disruptor deemed problematic. Second, local tourism organisations are niches that operate in a violent context determined not only by land-traffickers (e.g. direct life threats to members of local tourism organisations) but also by historical structures (e.g. ineffective and unjust application of the law that seems to benefit illegal activities). And third, in Lima's fog oases the state operates in parallel – or to some extent jointly – with other informal and even illegal actors such as land-traffickers (see Espinoza, 2020; Quijano, 2024b). As such, it is possible to argue that the 'capture of the state' (see Durand, 2019) is a mechanism that this 'political authority' follows to stabilise the violent regime. In that sense, local and national policies should focus on empowering and protecting local organisations, recognising local organisations' legitimacy over the territory they defend, opening direct and effective dialogue between local organisations and authorities, promoting affordable housing, and effectively punishing land-traffickers and colluded authorities. More importantly, bottom up actions should also aim at tackling the effects of colonial urban planning reflected in inefficient governance and detrimental centralism.

In terms of theoretical implications, this study demonstrates that through an epistemic reconstitution (see Quijano, 1992) it is possible to adapt the multilevel perspective (MLP) to a given – colonial – context. While Hopkins et al. (2020) argues that sustainability transition researchers should search for new frameworks to better understand non-Western realities (i.e. to decolonise it), this chapter shows that non-Western Knowledge can enhance the analytical power of the former. Indeed, this chapter uses the MLP to disentangle the complex, contested, multi-scalar, and multi-actor transformation of Lima's fog oases. Yet, through an epistemic reconstitutions this study adapts its analytical levels to better grasp coloniality: a *violent regime* based on land-trafficking and allegedly collusion between criminal organisations and authorities that destroys Lima's fog oases and threatens organisations working towards their conservation, *rebellious niches* operating as local tourism organisations that undertake significant and commendable bottom-up strategies to stop land-trafficking despite the everyday violence they are subject to, and a weak territorial governance in the periphery coupled with issues of corruption and neglect that benefit the violent regime as the *colonial landscape*. Moreover, this study highlights the role of violence in sustainability transitions which has been so far almost neglected. Hence, it is possible to argue that, in some post-colonial contexts, regimes use violence as a strategy to protect themselves, perpetuate power imbalances, and disarticulate niches organisational skills.

Finally, considering the increasingly economic and political power gathered by the land-trafficking regime, talking about a sustainability transitions might appear as wishful thinking rather than a concrete representation of the complex and contested transformation of Lima's fog oases. In fact, the power difference between this violent regime and rebelling niches in a colonial landscape that tend to benefit the former points to a situation where unsustainability seems to be the norm. According to the author, this situation should be an invitation to other sustainability transitions researchers in the Global North and Global South to increase the focus on those cases where sustainability transitions appear highly difficult (e.g. coltan mining in the Democratic Republic of Congo) not only to deliver theoretical outputs but also to recognise the violence and oppression still taking place due to colonialism and the commendable actions done by the oppressed.

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