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"Exploring the Green Frontier within Europe's Recent Forest Initiatives"

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ABSTRACT

In recent decades, there has been a global consensus on the urgent need for coordinated efforts to combat forest loss and degradation, given forests' critical roles in climate change mitigation, biodiversity, and local economies. Major policy initiatives, including the Bonn Challenge, the UN Decade on Ecosystem Restoration, and the European Green Deal, reflect this consensus. However, the development and implementation of forest policies are complex and politically charged, often addressing 'wicked' problems with diverse actors and conflicting values. The proposed solutions—such as conservation, rewilding, certification, and forest expansion—introduce their own challenges. At the same time, there is growing concern about the commoditization and commercialization of forests, where green initiatives can exacerbate inequalities and facilitate new forms of resource accumulation. This paper introduces the concept of 'green frontiers' as a lens to better understand patterns and consequences of this new forest dynamic in Europe. Applying critical perspectives typically used for frontier studies in the Global South to the Global North, this paper addresses a gap in literature on frontier-making in Europe while highlighting how environmental discourses are reshaping landscapes and communities, often reflecting historical patterns of dispossession and exploitation. It argues that anthropology and like-minded disciplines that rely on ethnographic and comparative methods, offer valuable perspectives for analyzing this formation of frontiers, and that a coordinated forest anthropology is particularly well suited to trace this shift within communities, as well as the common patterns across nations and regions.

1. Introduction

The last decades have seen a growing consensus that urgent and coordinated efforts between and across nations are needed to reverse global forest loss and degradation trends. This consensus is premised on an understanding that forests are central to mitigating and adapting to climate change, reducing or reversing biodiversity loss, and are integral to local economies and cultural health worldwide. General assertions such as "Forests provide essential physical, cultural and spiritual nourishment to the people who live in and around them" (Seymour, 2020:34) are ubiquitous to forest literature, research and policy across disciplines and nations. As a result of such consensus, multiple policy initiatives (i.e. Bonn Challenge, UN Decade on Ecosystem Restoration, Glasgow Climate Pact, European Green Deal) have been proposed to coordinate a global effort at bettering humanity's collective forest futures. However, the process of creating responsive forest policy is highly political, and the problems such policy responds to are complex, open-ended, and retractable, involving multiple actors, values, and motivations and are,

in effect, 'wicked' problems (Nikolakis and Innes, 2020; Arts et al. 2024).

The proposed solutions to forest loss and degradation, through mechanisms like forest conservation, certification, expansion, and transformation, are often as wicked a problem as forest loss. Indeed, there is a growing concern regarding the commoditisation, commercialisation, and privatisation of nature associated with initiatives meant to support environmentally positive goals. For example, through transformation into opportunities for development, speculation, and investment, many green initiatives can reproduce the conditions crucial to furthering resource and capital accumulation (MacDonald and Corson, 2012) and exacerbate existing inequalities (Fletcher, 2023). Recently, this has been visible in the case of renewable energy (Singh, 2022), offset planting (Greenleaf, 2024; Wittman and Caron, 2009), reducing deforestation and forest degradation initiatives such as REDD and REDD+ (Gupta et al., 2012; Skutsch and Turnhout, 2018), and green investments (Mendoza et al. 2021; de Freitas Netto et al. 2020). While responsible and sustainable forest investment is a laudable goal (Brand

et al. 2020), the internationalisation and expansion of institutional investment in forestry as an attractive green investment option have nevertheless changed the nature of what forests are and how they are engaged with on a global scale. In this context, it is imperative that those involved in forest planning and who orbit such envisioning, including policymakers, politicians, activists, and academics, have models and language that help them better understand, locate, and articulate the potential pitfalls inherent in large-scale forest planning. In this article, we propose that the concept of green frontiers is a valuable tool in this effort.

The material and financial potential of forests within a green paradigm, motivated, amongst others, by the 2015 Paris Agreement and UN Sustainable Development Goals, expanded the idea of forests as an attractive venture for states, industry, and investment firms. Such interest, bolstered by the expansive discursive, if not always material, potential of forests to meet multiple needs at once (Asselin, 2022), creates a fertile resource frontier. Resource frontiers, at their most fundamental, occur with the discovery or invention of 'new' resources (Kelly and Peluso, 2015; Rasmussen and Lund, 2018) and subsequently are sites where new types of territorial power are formed, acting as "windows onto broader processes of managing risk, facilitating accumulation, and reconfiguring sovereignty" (Cons and Eilenberg, 2019:3). Green frontiers echo these processes. However, importantly, the concept also captures the more ephemeral 'resources' of green discourse, including less tangible forest affordances such as biodiversity banks and carbon sequestration. Most, if not all, forests around the world have long and fraught histories of resource exploitation, control, or accumulation. However, this more recent green turn has meant that forest exploitation, once visible and measured in the physical removal or presence of material (i.e. board-feet, seedlings planted, hectares of reserve), can now be nearly indistinguishable from existing forest processes, and is often invisible to those not aware of resource allocations (carbon units for instance), causing challenges for tracking forms of 'ownership'. Yet, regardless of their (im)materiality, the discovery of new resources can still initiate a process of territorialisation, including establishing new territorial rules, property regimes, acquisition laws and mediating actors' new roles and powers (Singh, 2022: 404). These newly imagined resources do not replace previous roles and understandings assigned to forests. Instead, they're often added to existing uses and affordances, changing forests into almost unlimited sources of imagined potential. Within a resource frontier, the idea of territory and resource and the rules that govern them are reworked and therefore, such moments of resource-making warrant particular attention, even when the resource is less visible.

This article argues that many emerging, recently established, and forthcoming forest commitments in Europe would benefit from a green frontiers lens. We argue that the concept of green frontiers, as an active and ongoing process, is a useful analytical tool to draw critical attention to the mechanisms through which marginal areas in Europe are assembled anew to serve as blank slates for the green (i.e. oriented around conservation, climate change, and biodiversity) aspirations of a broader forest and nature reimagining. Within this, we make three central points. Firstly, we argue that it is crucial to foreground the role of imagination in resource-making of green frontiers to understand better the moral logic that often underpins forest discourse and how marginal areas become particularly easy sites for forest projects. While imagination is present in much existing frontier and rural landscape theory, it should be central when examining resource frontiers of the green economy. Secondly, we highlight the risk of perpetuating harm by failing to take seriously patterns in where and how forest projects or allocations occur in Europe. Following (Rasmussen and Lund, 2018), we are particularly interested in how frontier lines are drawn and redrawn as emerging resources are identified, defined, and subject to extraction and commodification. We understand this overall process as one of frontierization, that is, "the ways that frontier spaces are framed and made into sites and zones of production and extraction" (Cons and

Eilenberg, 2019: 234, also Eilenberg 2022). We argue that many 'green' forest projects and plans risk reproducing longstanding patterns of frontierization that target existing marginal regions of Europe through green policy while couching interventions in green and friendly language. To expand on this point, we discuss two succinct examples of green frontiers: rural Ireland and Poland, highlighting the patterns of frontier-making that deserve further attention across Europe.

Thirdly, we argue that a coordinated forest anthropology within Europe would be particularly well suited to trace the diverse cultural, economic, and political implications of this frontierization. Ethnographic research can provide rich and detailed examples of the local consequences of global and internationally-driven forest imaginings; however, such studies often risk being isolated as single cases and not seriously considered outside of disciplinary boundaries. A deliberate approach that links locally informed cases is needed to draw attention to common patterns across nations and regions. Beyond this, meaningful interdisciplinary communication between natural and social sciences is needed to better plan for a collectively forested future. Within this approach, forests are understood as "constituted of complex of continuously unfolding relationships, [where] care and respect for forests implies that we consider the impact of forest practices on those myriad relationships" (Himes and Dues, 2024: 8).

Lastly, processes associated with frontierization, including local exploitation, reordering, and dispossession, have received extensive and well-deserved attention throughout the Global South, highlighting the violence (Peluso, 2017), erasure (Frederiksen and Himley, 2020) and system of plantation (Murray Li, 2022; Cousins, 2023; Barua, 2024) of many forest initiatives. This literature has elucidated the extractive and exploitive processes through which populations and natures have been and continue to be harnessed for non-local needs. The concept of Plantationcene, a way of conceptualising the collective impacts of economic and ideological models that foreground scalability and interchangeability of resources, monocultural expansions, forced labour, and colonial exploitation (Haraway, 2015; Haraway and Tsing, 2019), has emerged from such work. This article draws on such scholarship and asks that a similar lens be applied to understand how the establishment of new and less tangible forest resources, such as carbon sequestration and biodiversity banks, are produced through the restructuring of so-called marginal spaces and communities in Europe. In doing so, we seek to interrogate the (neo)colonial discourse of 'emptiness,' 'wastelands,' and 'undeveloped communities' that have been tied to frontier formation worldwide for centuries and that now increasingly incorporate concepts of 'greenness,' 'biodiversity,' and 'untouched-ness' (Bridge, 2001; Braun, 1997; Eilenberg, 2022; Murray, 2014; Singh, 2022). Within this, we are particularly interested in how land, landscape, territory and existing populations are reworked in such moments to fit new narratives appropriate to a green frontier and its imagined possibilities – unmaking landscape in the process of land transitioning. By focusing on Europe, we aim to fill a gap in critical reflection and literature on the Global North's frontier-making while building on lessons learned in the Global South.

2. Approaching Frontiers

The imagined geographies associated with frontiers are historically anchored to entwined concepts of the savage and utopia, each of which, since their conception, have been reflections of Western desires and anxieties (Trouillot, 2003). In earlier conceptions, such as Turner (1921), the idea of a frontier rested on a unidirectional transference of modernity at the edge of civilisation, where modernity moves toward and transforms a savage and wild space. Watts (2018) notes that this contrasts British usage of the frontier concept, which tended to emphasise the remote and uncivilised, something more akin to a wild, innocent, perhaps utopian other. However, both approaches provide a political economy perspective that implies directionality from undeveloped to developed spaces (Rasmussen and Lund, 2018), where

nation-building and modernity are central to the frontier concept as a zone of contact between "barbarism" and "civilisation" (Watts, 2018) and the expansion of industry and governments into so-called wastelands and margins (Wendle and Rosler, 1999; Brown, 2010). While the frontier concept has since expanded to be more inclusive to concerns beyond political economy, the central themes of the savage (or likely today, marginal, backward, or uneducated) and utopia (read unexploited, virgin, pristine, or underdeveloped) are still central to contemporary frontier legitimation techniques, including within the green economy.

More recent conceptions of the frontier have expanded on these earlier spatial configurations between a centre and peripheries to include a broader understanding of frontier and territorialisation dynamics as integrated into resource commodification and property regimes (Rasmussen and Lund, 2018; Peluso and Lund, 2011; Tsing, 2003), and to consider distinctions between internal and externally shaped frontier dynamics (Kopytoff, 1987). Furthermore, contemporary frontier conceptions tend to be mindful of the role of agency in peripheral populations (Cottyn, 2017) and often include discursive practice as a tool of frontier-making and legitimation (Bridge, 2001). Regardless of the approach, central to most concepts of the frontier is an agreement on the centrality of setting apart both places and people, where treating a space as a frontier implies acts of hierarchisation and othering so that an area can be domesticated or ordered (Pálsson, 1996; García and Fold, 2022), and inscribed and legitimated (Murray Li, 2007) as something new.

The green frontiers concept draws on this rich literature to explore frontier dynamics emerging within today's green economy. As employed by Garcia and Fold (García and Fold, 2022) in their case study on the Colombian Amazon, green frontiers deliberately position contemporary development within a longstanding pattern of colonial exploitation, with 'green' referencing the biodiverse richness of what is exploited. However, increasing attention has been drawn to the specific exploitation and appropriation opportunities available within the so-called green economy (Fairhead et al., 2012; Schmink et al., 2017). In this paper, we apply the green frontier lens to Europe and its emerging forest push to understand better how longstanding patterns of resource appropriation and core-periphery dynamics shape how European forests are imagined now and in the future. Green frontiers refer to the process through which resources and places are conceptually and materially made and unmade, ordered, and controlled through apparently environmentally motivated projects. This process typically takes place according to longstanding patterns of dispossession and acquisition and tends to reproduce regional inequalities while muting debate and conflict through the implied moral authority of environmentally necessary work.

3. The Role of Imagination in Green Frontiers

In advancing an argument for green frontiers in European forests, we want to draw particular attention to the processual and imaginative nature of frontier-making within the green paradigm. Highlighting the *process* of frontier-making emphasises how frontiers are active ongoing moments rather than temporarily or geographically bound places – not space itself, but something that happens in and to space ((Rasmussen and Lund, 2018)). While European green frontiers tend to emerge on edges and neglected or so-called marginal areas, their geography is unstable. Instead, in our understanding, frontiers can be conceived of as an assemblage wherein flows, frictions, imaginations, and interests accumulate and produce particular places (Tsing, 2011; Cons and Eilenberg, 2019) and as social spaces where existing forms of rule and authority are actively in question (Watts, 2018; García and Fold, 2022). Such processes transform, sometimes permanently, the relationship between landscape, people, animals, and plants (Cons and Eilenberg, 2019:13) but are never static or complete. This approach is important because moments of resource-making are likewise never complete.

Instead, green resource-making is a manifestation of the "law of value," wherein, according to Moore (2015), "the ongoing, radically expansive, and relentlessly innovative quest to turn the work/energy of the biosphere into capital" (p. 14) is materialised. Moore reminds us that what needs further examination is *how* the work/energy of the web of life is incorporated into the relations of power and re/production, i.e. how it is appropriated within capitalism. Focusing on process highlights the *how* of frontiers as much as the *where*.

An important 'how' of the green frontiers process is an understanding of frontiers as imaginative zones where people, place, and history are imagined and discursively shaped in such a way as to justify or even demand intervention. The establishment of new visions associated with resource-making is invariably tied to existing orders and values, which must be first reworked through a process referred to variously as unmapping (Tsing, 2003), discursive erasure (Bridge, 2001), undoing and unmaking (Singh, 2022; Rassmussen and Lund, 2018), emptying (Cons and Eilenberg, 2019), and reworking (Garcia and Fold, 2022) that "takes place through a simultaneous process of erasure and reimagination, such that these spaces are simultaneously emptied and full." (Bridge, 2001: 2155). In each case, the nuances of local livelihood and meanings are removed or overlooked. In such a way, landscapes, often already highly impacted by various transformations, can be turned into new types of resources: biodiversity banks, green refugia, renewable energy storages, biofuel suppliers, green investments, carbon sequestration sites, green borders and climate change fixes. Importantly, unmaking tends to rely on moral reasoning, wherein this newly established "no-place" can sit in contrast to a "good-place" (Bridge, 2001) with associated development, modernity, knowledge, technology and advancement that implies a moral imperative reminiscent of the early capitalist frontier logic and the near endless imagined possibilities of so-called 'empty' spaces.

As it is increasingly apparent, 'green' and 'clean' technologies can be imagined as a modern pathway for sustainable development while also embodying a coercive expansion over space and constituting a new feature of colonisation (Singh, 2022). The associated processes of resource-making and reimagining often employ established patterns within frontier histories, including relying on justifications that ignore, undermine, or demean locals while also transforming lived places and ecosystems into imagined resource utopias brimming with potential. Yet, as Peluso and Lund (2011) remind us, such "frontiers are not sites where 'development' and 'progress' meet 'wilderness' or 'traditional lands and peoples.' They are sites where authorities, sovereignties, and hegemonies of the recent past have been or are currently being challenged by new enclosures, territorialisations, and property regimes" (668). While the mechanisms of frontier-making in Europe are often distinct from those currently employed in the Global South (a dispossession often supported by Western-based firms and nations), Europe's own peripheries are also, yet again, caught in the process of frontier-making that has emerged through this more recent forest-push. The lens of green frontiers demands that recent and emerging forest initiatives be positioned within the context of regional and national histories, including colonisation and dispossession, as well as the broader context of green resource-making.

4. Europe's Green Frontiers

Historically, forest coverage in Europe has fluctuated significantly due to cycles of deforestation linked to settlement, agriculture, and industrial advancements, followed by phases of reforestation efforts, which were interrupted by conflicts and other disturbances, including economic transformations (Rudel, 2019). Currently, forests cover more than one-third of European land (Pretzsch et al., 2023), and since the 1990 s, there has been a noteworthy 9 % expansion in coverage. Overall, deforestation in Europe has not been a major concern for more than forty years (Frei et al., 2022). However, forest growth is not uniform and varies significantly across European regions. The varied impacts of

climate change and diverse socio-ecological challenges, such as land abandonment (Forest Europe, 2020; Frei et al., 2022) and significant differences in forest type and forest classification systems mean that European forests as a category are diverse, dynamic, and often contested.

This paper approaches forests as political–ecological entities drawing from the idea of political forests, first introduced by Peluso and Vandergeest (Peluso and Vandergeest, 2001) and foregrounds how forests are shaped by ideas, practices, and institutions that are bound to, among other things, state-making, resource control, and, more recently, green neoliberalism (Devine and Baca, 2020). Approaching forests as political–ecological entities is necessary because the current positive trend of European forest cover is occurring at a time when new social, economic, and political forest expectations and obligations are emerging globally. For example, within Europe, there is a growing scientific and political impetus for restoring landscapes to help tackle several ecological and socio-economic challenges. This shift in European Union (EU) environmental policy, which we understand as a "green turn," places ecosystem restoration (including forests) at the centre of the European Union's new environmental policies and governance instruments. The European Green Deal, the document which sets the foundation for the new "green economy," requests from the EU members urgent restoration efforts for damaged ecosystems at sea and on land to increase biodiversity and deliver a wide range of ecosystem services (European Commission, 2019). Launched in early 2020, the EU Biodiversity Strategy puts restoration as one of its four pillars with a goal of planting three billion trees by 2030 (European Commission, 2020). For the first time in EU history, the new Forest Strategy (European Commission, 2021) is being pushed strongly into biodiversity and restoration directions. The new Nature Restoration Law (European Commission, 2024), after a series of Europe-wide protests and unconditional opposition from some EU members, set ambitious and legally binding goals for the EU countries.

While such policy shifts are primarily framed as promoting green nature-based transformations, they clearly also indicate the emergence of new political relationships to forests and forest resources. Within this, European forests emerge as "fixes" or crisis mitigators, a trend extensively examined throughout the Global South. This shift can be understood through Harvey's concept of 'spatio-temporal fixes,' in which the (capitalism) crisis and/or its inclinations can be mitigated by reshaping spatial and geographical correlations or by the introduction of new technologies or innovations (Harvey, 2011). Growing forest cover and a green turn in European and global policies combine to transform forests into solutions, or spatio-temporal fixes, to the multiple crises our current societies face, including biodiversity loss, climate change, economic crises, war, and even migration and identity issues. In this way, forests are transformed into a new type of resource, i.e. a resource with the capacity (though sometimes only a discursive capacity) to store, enhance and preserve biodiversity, mitigate and compensate for climate change, and ease social woes, all of which are consistently imagined through forest-based wilderness, rewilding, afforestation, and conservation projects. These circumstances form geographical and discursive spaces that facilitate novel forms of commodification of nature in particular types of places, reshape local relationships to nature, and can often constitute new forms of appropriation and dispossession.

Our primary point in this paper is that the locations where such initiatives manifest or are imagined to manifest in Europe occur in the context of existing historical patterns and discourses. We aim to draw attention to the internal peripheries of Europe that tend to be targeted in forest projects. To do so, we shift our attention to the spaces of and for internal shadow ecology (Dauvergne, 1997) that are European sacrifice zones (de Souza, 2021). Through this, we are following and questioning the imagined geographies of Europe (Said, 1978) and speak to the heterogeneity of the social and environmental realities of the continent. This approach expands on a postcolonial perspective, highlighting longstanding patterns of division between the so-called centre and

peripheries and that of practising "othering" in Europe while operationalising hierarchies of knowledge (Buchowski, 2004). The separation of centre and peripheries plays a critical role in shaping colonial and postcolonial worlds and is recognised as playing a key role in European political and economic dynamics (Wolff, 1994). This separation includes regional and national heterogeneity (within which areas of marginal environmental, social, or economic value are determined and targeted for forest programs) and European-wide geographical and cultural divisions such as those of Eastern Europe (Wolff, 1994) and the Balkans (Todorova, 1997), follows political and economic transformations, such as the collapse of the iron curtain (Cervinkova, 2012; Buchowski, 2006), or established economic patterns such as the EU's 'belt of disadvantage' (Portugal, Spain, Southern Italy, Greece) (Rhodes, 1995) and historically established peripheries (Ireland) (idem).

Over centuries, specific regions within nations and broadly within the continent have witnessed a convergence of environmental and political factors that render them well-suited for frontier-making and territorialisation work. Historical practices of othering and subaltering turn such regions into endless imagination possibilities for dominant centres (in their various forms, such as states, governments, capitals, or urban elites) as they seek to redefine and control resources. The abundant imaginative potential of forests renders such areas particularly vulnerable within this new forest push to ongoing waves of control associated with any combination of forest potential (timber, biodiversity, carbon sequestration, social well-being, tourism, safety etc.). Such patterns can easily go unnoticed because of green discourse's discursive and social power combined with a taken-for-granted positive symbolism of forests and trees. In this context, rediscovered frontiers, where forests already hold diverse meanings, are called upon to take on additional roles in the reshaped centre-periphery dynamic. To illustrate such ongoing moments of green frontier-making in European forests, we draw from two brief case studies from Ireland and Poland.

5. Case 1: Upland Duhallow, Irelands

At a low of 1 % of the total national forested area at the turn of the 20th century (Neeson, 1991), forests in the Republic of Ireland today occupy closer to 11 % of its landmass, with the state aiming to increase total forest cover to 18 % by 2046 (Forest Service Department of the Marine and Natural Resources, 2014). This increase is driven by a national need for wood fibre and products and a goal to reach a carbon–neutral agricultural sector by 2050 (Schulte et al., 2013). State efforts to expand forest cover have included, among other initiatives, the direct purchase of land by the semi-state-owned forest company Coillte, legal protections on forested lands, penalties for cutting trees without permission, and financial incentives for private owners to plant trees.

Afforestation on private lands became the dominant source of forest growth from the mid-1980 s onward (Department of Agriculture, Food, and the Marine, 2024), and as of 2022, forest ownership in Ireland is 50.9 % private. Moreover, since 1980, 82 % of the area afforested on private land has been on farms (Ibid). Agricultural land, however, is a limited resource and is under pressure from high economic value demands such as dairy and cattle production, which compete with forestry for land use (Kearney, 2001). Subsequently, the afforestation program encourages the private sector to convert less productive agricultural land into forestry, with marginal or poorer quality lands providing the greatest opportunity for expansion (Farrelly and Gallagher, 2015). As a result, more than two-thirds of afforestation has been on marginal agricultural land, and this focus is likely to continue (Ibid). Plantation forests are the dominant model in Ireland, with (mostly non-native) conifers as the primary tree type (69.4 %). While native broadleaf inclusion is now more common, such trees grow more readily on richer lowland soils, which are less likely to be planted. Subsequently, forest growth today primarily takes the form of heavily managed conifer plantations on marginal farmland, with tightly spaced and linear tree planting.

While financial incentives provide a strong impetus for farmers to plant their marginal land with trees, for instance, through grants and harvest income, many farmers still hesitate. As a result, research on plantations has primarily explored two features of the plantation debate. First are the reasons behind planting hesitancy and how the state or Coillte might intercede in planting reluctance. Studies are often funded by bodies with a direct interest in afforestation, including the Agriculture and Food Development Authority (Teagasc), Coillte, and the Council for Forest Research and Development (COFORD), a council appointed by the Minister for the Department of Agriculture, Food, and the Marine. Such studies have found that locals feel their communities see few economic benefits commonly associated with plantations (Ni Dhubháin, Fléchard, Moloney, & O'Connor, 2009), that they feel 'good' land is too valuable for forestry (Duesberg, O'Connor, & Ni Dhubhaim, 2013), that forests do not merge well with rural Irish identity and good farming practices (McDonagh, Farrell, Mahon, & Ryan, 2010), that locals find plantations produce a feeling of isolation and that there is a lack of planting consultation and an overrepresentation of conifer species which have limited cultural value (Bonsu, Ní Dhubháin, & O'Connor, 2019). While Asselin (2022) has critiqued this literature as being driven by an afforestation mandate that prioritises mitigation, education, and other 'convincing' techniques rather than fully exploring these local concerns, such works have provided rich material on planting hesitancy. A second area of research has explored the ecological impact of plantation forests, with a consensus that it heavily depends on context. For example, forestry plantations can be beneficial to biodiversity in the landscape if properly planned and managed and can have a negative effect if not (Iremonger et al. 2007); afforestation negatively affects semi-natural grasslands and can positively affect improved grassland (Buscardo et al. 2008); tree species, previous land use, and plantation age determine the plantations' biodiversity benefit (Bremer and Farley 2010).

While the forest debate draws on this material and is often framed as 'for' or 'against' plantation forests and their ecological benefits or harms, specific examples can provide an argument for considering additional perspectives. Specifically, how through a focus on marginal lands, the same areas historically targeted for waves of improvements once again find themselves as an area of sacrifice for the benefit of outsiders. Such a perspective asks that we pay attention to larger patterns of land meaning, access, and control that may not be immediately apparent in debates such as those outlined above.

Upland Duhallow is one region among many in Ireland with significant afforestation. It is a boggy region of northwest County Cork, where the Mullaghareirk Mountains, bordering County Limerick and County Kerry produce a hilled region. The area is the heartland of Slieve Luachra, a cultural area of rich musical, dancing, story-telling, and poetic tradition. Duhallow's unique regional landscape and heritage differentiate it from the broader and more prosperous County Cork. Small-scale beef farming dominates the uplands of this area, which are consistently framed as marginal land, with various natural barriers, including land incline, abundant rainfall, poor soil, and social barriers, such as depopulation and a stifled economy. Among the many changes the region has gone through in the last 50 years, including Ireland's introduction into the European Union (1972), the boom and bust of the Celtic Tiger era (mid-1990 s through mid-2000 s), and the establishment of a Specially Protected Area (SPA) in 2007 is a dramatic shift in land use through afforestation. Afforestation is the practice of planting trees where none have been in recent history and is the dominant forest strategy for the state. Some estimates argue that as much as 45 % of the area's SPA (much of its upland marginal land) is afforested, most since the 1970 s (National Parks & Wildlife Service Ireland 2015).

Beyond plantation forests being good or bad, forests in Ireland are historically tied to rural land and population control, with the Tudor Conquest and Act of Union (1603–1800) a time of significant forest exploitation and decline followed by centuries of deforestation to support colonial resource demands (wood for ships, charcoal, agricultural

expansion), exposing Irish rebels, and for direct land confiscation (Neeson 1991). In other words, forests have been politically laden for much of Irish history, and their exploitation has often led to local land loss. In Duhallow, interventionist approaches have been historically justified through the narrative of marginal land. Early accounts of Duhallow describe the area as lagging behind, marked by small farms, limited profit, geographically insignificant, and in need of improvement (Cullory, 1986; Townsend, 1810; Young, 1780), establishing a narrative that predictably reflects development priorities as much as local character (Asselin, 2025). Moreover, such accounts have historically characterised residents as problematic, lawless, and uneducated. For example, an 1832 journal article describes the region as distinguished by "…a more than ordinary indolence, discontentedness, and turbulence, in its inhabitants; and their abodes being inaccessible for want of roads, crime frequently escaped unpunished…" (Folds, Petrie, & Otway, 1832, p. 166). Accounts of the region and population continued throughout the 20th century that emphasised the region's lack of development, often in unison with plans for improvement – and from the 1970 s onward, afforestation became an increasing part of this discourse.

State arguments for afforestation in marginal areas inadvertently build on such longstanding logic (maximising land outputs in areas of least economic value, for example) and current research consistently frames farmers hesitant to plant as lacking in awareness, knowledge, skill, and modernity (see, for instance: Collier, Dorgan, & Bell, 2002; Farrelly, 2006; O'Leary, McCormack, & Clinch, 2000; Savill et al., 2013), echoing similar statements made more than a century earlier. Such discourse fails to take existing cultural, social, and economic values and practices seriously. Subsequently, it risks perpetuating a longstanding pattern of using the marginal lands argument to justify rural development and land-use planning that meets external interests.

What has changed in the last 50 years is not forestry (plantations have a long history) but a shift in narrative that now includes environmentally beneficial outcomes of the plantation model. For example, Ireland's rural development strategy (Government of Ireland, 2021) emphasises 'supporting a just transition to a climate-neutral economy,' part of which relies on an ambitious afforestation plan to achieve an afforestation target of 8,000 ha/year. Moreover, while forestry only makes up roughly 1 % of Ireland's GDP (Freer-Smith et al. 2019), the contribution of Irish forests is increasingly being measured beyond the economic and material. In particular, Irish afforestation helps the state meet EU-mandated emissions goals. Ireland's 2019 National Energy and Climate Plan, as mandated by the EU, relies heavily on afforestation to help reduce emissions, including carbon sequestration (also allowing the state to offset its dairy industry).

While the climate goals are laudable, they often overlook the contextual uncertainty of the ecological impact of such forests and the social impact of loss of place. One central concern of Duhallow farmers who are hesitant to plant trees, as found by Asselin (Asselin, 2022; Asselin, Asselin, & Egli, 2022; Asselin & Mee, 2019), is the permanency of forests and erasure of culturally valued place. Because forested land, much of which is private-owned farmland, must remain forested in perpetuity under Irish law, planted lands are permanently removed from the rural farming and cultural landscape. Moreover, because plantation forests are difficult to enter, the land is also materially removed from landowners, and the unique skill set required to manage small plantations means that farmers often need to hire outside consultants to manage their fields. In this way, the meaning of land and property itself is altered. However, this consequence is lost within green forest-friendly discourse and justified through longstanding techniques that discursively imagine the area and its people as marginal, lacking in value, and in need of development. Within this, areas such as those in Duhallow can be transformed from marginal wasteland to productive forests, bypassing concerns regarding negative social, cultural, and potentially environmental consequences while helping the state increase its percentage of forest cover.

6. Case 2: Białowieża Forest, Poland

Poland is in Central-Eastern Europe, with its eastern border marking the edge of the European Union, facing Ukraine, Belarus, and a small piece of Russia known as Kaliningrad. The label of 'Eastern European' is contentious and felt by many as derogatory, with Poland rejecting the 'East' label, especially after the collapse of the Iron Curtain and joining the EU (Moskalewicz and Przybylski, 2018).

In the cultural imagination of Europe, a well-established trope is that as one travels further east, there is a decrease in development and an increase in chaos. In parallel with this chaotic and backward image, however, is a sense that the region offers vast, untamed nature, providing abundant resources and endless opportunities for pursuing improvement, progress, and reforms (Wolff, 1994; Dorondel and Şerban, 2022). As pointed out by Schama, Poland is "a country where frontiers march back and forth to the abrupt commands of history" (Schama, 1995: 23). Despite bordering Germany, one of the most historically influential countries of the European continent, Poland is culturally and mentally distant and 'other' for many Western Europeans while also remaining a zone of potential conquest. Describing 18th-century Prussian colonisation of today's Northern Poland, where forest restoration was an intended societal reform, Wilson (2012) wrote: "Some Germans liked to imagine Pomerelia as Prussia's answer to the North American frontier; [...] 'an abandoned land, without law, without authority; it was a wasteland.' (...). The Germans, of course, were the bearers of civilisation (or Kultur) in this colonial fantasy. (...) 'German Pioneers in the East,' (...) mission['s] involved cutting flourishing agricultural communities out of the wild woodlands" (Wilson, 2012: 132; 134).

As a frontier space, nature, especially forests, was crucial in imagining and making lived spaces into peripheries. A notable instance of this potential is Białowieża Forests, situated on the current border of Poland and Belarus. The Białowieża Forest is frequently referred to as the last large, close-to-natural, temperate, lowland forest in Europe (Blicharska et al. 2020). However, more than just a natural area, it has served as an imaginative resource for waves of rulers (kings of the Polish-Lithuanian Commonwealth, Russian czars, the Prussian administration, Nazi rulers, Soviets and various Polish state forests officials) as they used the forest and its resources to serve their changing and multiple needs. On the one hand, this has included the fulfilment of conservation dreams (such as the preservation of the last European Urwald and its population of the European bison), and on the other, as a rich source of wood and other resources that could be cyclically "rediscovered" to serve the current needs of the centre in its various permutations and locations throughout repeated conquests and reconquests (Lorimer and Driessen, 2016; Samojlik et al. 2013; Sunseri, 2012).

The forest remained in the hands of the changing rulers and states as a key timber and game provider. However, the area has historically been utilised for traditional forestry practices, including animal grazing, beekeeping, haymaking, and the production of wood tar, potash, charcoal, and gathering other non-timber forest products (Samojlik et al., 2016), fostering a strong sense of community access and use rights. Presently, the forest is partitioned between two state agencies: the State Forest Service, which manages approximately 84 % of the forested land, and the National Park, which manages the remaining 16 %. Except for the strictly protected zone, where access is only granted to those with park ranger escorts and payment of a fee, access to the forest is free.

Over the last four decades, Białowieża Forest has become a prominent site of well-known forest disputes (Konczal, 2017, Blavascunas, 2020). In particular, a conflict over the enlargement of a National Park in the region solidified strong opposition between "environmental" and "forestry" coalitions (Niedzialkowski et al., 2012). This conflict recently garnered international attention when, in response to actions motivated by a bark beetle outbreak, Poland was accused of violating EU environmental laws and not respecting international commitments (such as those of the EU and UNESCO). Referring to negligence in following the Natura2000 requirements, the Court of Justice of the European Union sentenced Poland to a possible fine of €100,000 per day if the State Forest Service did not halt logging. Simultaneously, the Polish Minister of Environment and subordinate foresters asserted their legal obligation to adhere to the Forest Management Plan and forestry law, urging the removal of the remaining bark beetle outbreak and the need to reforest the disturbance areas (by plantation-like artificial planting; WWF, 2017). Within the dispute, the actors involved were depicted by themselves, the media and the larger society as either destroyers or protectors of primaeval forests, accusing each other of restricting forest access (Blavascunas and Konczal, 2018).

Within such debates, a consistent pattern emerged, presenting forests as an abundant resource, once again fulfilling the aspirations of numerous stakeholders and their desires for conservation and timber resources. Throughout the process, the forest was rapidly upscaled from its locality and transformed into a widely recognised and internationally known symbol of biodiversity conservation – referred to as "the last remaining primeval forest in Europe" (Coward, 2016). To oppose the logging, the supporters of environmental organisations and movements travelled to Białowieża from all corners of the globe and established the "Camp for Forest". In parallel, the state also positioned the forest as the joint outcome of the dedicated work of Polish foresters and the unique local heritage that resulted in a sustainable wood resource. Białowieża Forest became the realisation of the idea of the untamed (Eastern) woods. For example, through the status of the UNESCO World Heritage Site Natura2000 network, Biosphere Reserves the forest was described as "an irreplaceable area for biodiversity conservation, due in particular to its size, protection status, and substantially undisturbed nature" (UNESCO, 2024). At the same time, building on national imagination, it has been presented as a vital local resource for Poland, one which local communities claimed to rely on and should have access to (Konczal, 2017). A competing network of infrastructure and management was suggested by the state, international organisations, and local and international environmental NGOs to support their definition of forest and its resources. For each of these definitions media campaigns and crowdsourcing were organised, demanding the implementation of competing legal regulations at both the national and international levels (Niedziałkowski et al 2014, Konczal 2017, Blavascunas and Cope, 2022). Debates primarily concentrated on the forest's past (including the last glaciations) and its projected futures, with each vision selectively highlighting specific historical elements and neglecting others. Local people found themselves caught somewhere between their traditional loyalty towards foresters, new (and partly yet to be fulfilled) promises of eco-tourism and development, multiple identities (including religious and ethnic), newly discovered agency and the longstanding feeling of being unheard and misused.

While these tensions remained, the imaginative and material potential of the Białowieża Forest and its associated political implications took an unexpected turn in 2021. This shift occurred with the commencement of a strategically planned and methodically executed initiative to transport refugees and migrants to the borders of the European Union's Northern and Northern-Eastern regions (Grupa Granica, 2021). The dictators of Russia and Belarus are accused of executing this plan. Poland was counted among these nations, and the Białowieża Forest served as a point of entry into the European Union for numerous individuals. Refugees and migrants from Asia and Africa were "urged" to travel through Russia and Belarus towards the borders of the European Union (Human Rights Watch, 2021). As a result of swiftly enacted legislation proclaiming a state of emergency, access to the Białowieża Forest was periodically prohibited until recently (August 2024). The presence of the Polish army transformed the forests into a military zone, resulting in restricted access even for humanitarian aid and media. Various individuals within the environmental and forest coalitions redirected their attention to either organising support for refugees or assisting the arriving army, while the political focus shifted from environmental and forestry law to military regulation. Local residents negatively view the border security measures. They feel they were not

adequately consulted about the policies which impact their access to the forest and the feeling of connectedness with it (Nowak et al. 2024).

The Białowieża Forest issue eventually transformed into a matter of national and European security. This led to the construction of a wall in the heart of the forest to prevent the influx of refugees and migrants. In conjunction with the Polish parliamentary election in October 2023, a national referendum was held to gauge citizens' opinions on the wall. Consequently, the forest emerged as a prominent subject during the EU Parliamentary Election in June 2024. Throughout discussions, the forest was unmade from a "biodiversity hotspot" and "the best example of Polish forestry" into a green border. For the Polish state, this opportunity allowed it to envision itself as a significant participant within the European Union, safeguarding its security through the protection of its Eastern border and providing a strategic opportunity to be a part of the "West." In turn, the European Union saw the potential in reimagining Białowieża beyond its primeval symbolism toward a strategic location that could effectively prevent an influx of migrants and refugees, ensuring the preservation of the wild and distant eastern frontier. In the meantime, the migration crisis in the forest became a focal point in economic talks between China and Poland, leading to the Polish president opening a rail crossing between Poland and Belarus. This is vital for transporting Chinese goods to Europe, but it is dependent on whether China can persuade the leaders of Russia and Belarus to stop the flow of refugees (Ojewska et al., 2024). As of July 2024, at least 40 refugees have lost their lives attempting to cross the green border in and around the Białowieża Forest (Pałęcka, 2024).

Despite this shift in focus toward security, discussions about the conservation of the Białowieża Forests' ecosystem and its processes are ongoing. Although not as prominent in the media or public perception as the "migration crisis," these issues are recognised and constantly discussed by conservation experts, including scientists, national and international environmental NGOs, UNESCO, IUCN, and the Ministry of the Environment (Jaroszewicz, et al. 2021). By focusing on, for example, the impact of the new wall on mammal movement or the design and implementation of new management zones, they keep alive the promise of biodiversity hotspots, untamed wilderness and untouched nature. Within this, the forest, time after time, is seen as a crucial green resource, proving the cyclical character of conservation expectations of the state and international initiatives.

As argued by Barcz (2021), Białowieża "represents not only the material forest, but a landscape inscribed in the cultural memory" (191). However, the link between the environmental history and cultural memory of the place has been disturbed. This rupture relates to modern forestry and its practices as well as the "nationalistic manipulation" of the forest's history (Barcz, 2021), which "confused the issues of the nation, the periphery, and most importantly, the identity of Białowieża Forest" (Blavascunas, 2014: 487). For centuries, Białowieża Forest has been repeatedly deconstructed and reconstructed, providing shifting possibilities for fulfilling the diverse imaginative and material aspirations of outsiders. Throughout the process, certain elements, including history, landscape, economy, and local people, are either muted or prominent. Further examinations and critical reflections of these enduring patterns are necessary, particularly in light of the continuous use of forests as a means to address at once various repeating and new challenges such as climate change, shifting migration patterns, and geopolitical pressures.

7. Discussion

While these two case studies may appear disparate, they are examples of the ways in which places are made and unmade through forest talk and practice. Both the Irish and Polish cases provide examples of how national and/or regional marginality can be used to justify the ongoing reimagination of a forest's potential to meet external needs. In the process, local voices and histories are repeatedly overlooked or selectively sampled to bolster dominant ideologies or political priorities.

While these may appear as case studies primarily of relevance to their region or state, they exemplify the making of green frontiers in Europe, where international pressure to find forested solutions to social and environmental problems plays out along preexisting patterns and subsequently exacerbate or invent anew, existing inequalities.

The separation of centre and peripheries is critical in shaping postcolonial worlds in today's Europe (Obad, 2008; Zielonka, 2006). While the "West," as a metanarrative, has had the discursive and material ability to determine what and where the peripheries are, its own heterogeneity remains (Trouillot, 2003). Indeed, the articulation of regional distinctions, including those making up national narratives, often contributes to this core-periphery dynamic (Sahlins, 1989). Within this, while defining itself as "developed," the East, South, and the 'centre's' own internal marginal areas are often marked as "undeveloped" and simultaneously peripheral (Wolff, 1994). The historical process of resource discovery and control has shaped the trajectories of European internal peripheries, and any new interpretations or discoveries of resources are likely to follow the same pattern where economic, geographic, or socially marginal areas are repetitively imaged, done and undone as resource frontiers.

As historical processes in Europe have proven, discoveries like those of new green resources, including permutations of wilderness, have the ability to transform frontiers and integrate them into broader discourses on a national and global scale (Dabrowski, 2021). In other words, we can and should anticipate that future nature-based 'solutions' that depend on natural resources such as forests will continue in the same pattern. Any policy that depends on forest expansion, restructuring, reimagining, or the extraction of 'new' resources must take place somewhere after all. Thus, we point to a need for more research attention directed to the European "pockets of South" or European sacrifice zones that, for centuries, have been imagined and constructed as peripheral and providing endless potential for the development of a shifting centre (Dauvergne, 1997).

The green frontiers concept, applied in the context of contemporary European forest discourse, policy, and projects, highlights the potential for reproducing longstanding geographical inequalities. In such examples as those above, the frontier process, through which resources and places are conceptually and materially made and unmade, ordered, and controlled makes it clear how regional inequalities are reproduced. This is particularly true with forests because the current forest push ushered in through an economy of repair often adds to rather than replaces preexisting demands on forested spaces. In Duhallow, forest plantations can discursively or theoretically provide jobs, raw materials, biodiversity, support low-intensity farmers through forest subsidies, recreational opportunities, increasingly support 'green energy' (as wind farms are placed within and around plantations), and carbon sequestration. In Poland, the Białowieża Forest can theoretically provide jobs, raw materials, protection for endangered species, cultural value, carbon sequestration, and a protected border on the edge of Europe. The list of potential is nearly inexhaustive despite the stark truth that neither place is likely to fully meet these competing visions. Indeed, whether or not any of these affordances are materially present, contradict each other, or are even contrary to their initial intent may matter little in a paradigm where forests are understood as a universal good or where the term forest is taken for granted as an immutable mobile, that is, a bounded universal object, (Wong et al., 2007), existing outside of local context. What we are interested in are patterns in how so-called marginal or out-of-the-way forests and their associated communities are imagined and discursively constructed, what role this plays in an ongoing process of frontierization, and, by association, how well-intentioned forest plans can be used to justify further dispossession. As noted by Latour, "Plantationcene is a historical 'de-soilizaton' of the Earth. And it is striking how much analytical work is now needed to re-localise, to re-terrorialise and re-earth, to re-ground, basically, practice" (Latour et al., 2018:592, see also Haraway and Tsing, 2019).When forests are discussed as global or even national green resources and solutions, they are alienated from

cultural and ecological contexts, de-soiled as it were. The production of green forest frontiers in Europe is part of this process, and anthropology and like-minded disciplines are well placed to provide the holistic and detailed case studies needed to better understand trends between nations and communities while taking into consideration the importance of local context, and contribute to the work of re-soilization and restorying.

Indeed, much of this work is already well on its way. Social science researchers have worked to denaturalise forests, reconfiguring them as political–ecological entities (Agrawal, 2005; Peluso, and Vandergeest, 2020) assemblages (Murray Li, 2007), results of frictions (Tsing, 2011) outcomes of histories and technologies (Mathews, 2011) and immutable mobiles (Wong et al. 2007). Such work highlights the importance of understanding forests within a joint political, cultural, and economic context. Anthropologists, in particular, have worked to reshape the dualistic assumptions behind the notion of forests (Kohn, 2013), highlight the cultural role of trees (Rival, 1998), and, especially in the Global South where longstanding colonial patterns are increasingly recognised as playing a central role, to draw attention to the potential pitfalls of the green economy. Within this literature, violence, dispossession, land grabbing, (Martinez-Reyes, 2016; Greenleaf, 2024; Mathews, 2011), and racialised assumptions of regional resource exploitation (Fairhead & Leach, 1995) have been particular concerns. Given the increasing pressure placed on forests to meet not only resource and social demands but also to mitigate climate change and biodiversity loss, recognising this literature as a cohesive examination of forests, and foregrounding and building on the lessons learned within it is a pressing need. We have come to understand this work as a Forest Anthropology, that is, research that takes a holistic and participatory approach to examining how societies, cultures, and communities understand and integrate forests into their daily lives. Closely linked with literature in environmental anthropology, human geography, and political and historical ecology, this emerging specialisation focuses on exploring the multiplicity of perspectives on how forests are understood, defined, and what relationships exist between people, other species, and forests (Konczal, 2017; Konczal 2020; Asselin 2022; Asselin and Konczal 2013).

A marriage between comparative international forest-use trends with locally specific detail is necessary to ensure that each story remains grounded in context. Local perspectives are necessary in the work of restorying, and in prioritising the importance of forests at the local level, including through livelihood and identity. For example, local identity can be a significant issue in how international forest policy plays out at the local level. Woodlands, as described by Jones, have the potential to "create landscapes that can encompass individuals, communities, and even nations" (Jones, 2011: 160), and there is a longstanding connection between European forests and identities, state-making and resource conflicts. Forests play a notable role in shaping national identities, as evidenced by research on "Finish-ness" (Periäinen, 2006), "Polish-ness" (Konczal, 2017), "German-ness" (Wilson, 2012), "Latvia-ness" (Schwartz, 2006), and "English-ness" (Jones and Cloke, 2022). Throughout these and other studies, the interconnectedness between the fate of nations and the health of forests is a recurring theme. The forests did not disappear from national and state narratives, but their role and work have been reimagined of late. Thus, the place of forests in shaping national and state narratives requires urgent re-examination in the light of the emergence of the green frontiers, including the notion of forests as national resources and heritage and the link between the state, nation and forest initiative.

While a critical examination of human-forest engagements that are inclusive of local cultural realities *and* power-laden resource dynamics is well established in the Global South, though perhaps not recognised or formulated as a cohesive whole, its equivalent in the Global North is less abundant. This is not to say that research is absent, however. A growing body of literature in Europe discusses various peripheries, including Ireland (Asselin, 2022), Poland (Konczal, 2017, Blavascunas, 2020), Romania (Vasile and Iordăchescu, 2022; Dorondel, 2008), Bulgaria

(Cellarius, 2004), Macedonia and Czech Republic (Petrova, 2016), Albania (Stahl, 2010), Scotland (Robbins and Fraser, 2003; Mackenzie, 2002), Sardinia (Heatherington, 2011), and Portugal (Saleth and Varov, 2023). However, this material has yet to be brought together and recognised as part of a broader trend of fronterization, one that builds on existing regional and national differences and inequalities – Europe's emerging green frontiers.

Anthropology and disciplines using similar methods are particularly well suited to addressing complex forest-related issues because an ethnographic and holistic approach often deliberately entwines intimate and detailed local context with broader flows of capital, ideas, and materials. When employed well, the anthropological tool kit offers a sensitivity to local knowledge, prioritises local and diverse voices, and is increasingly inclusive of non-human beings. Such an approach is particularly important as local forest-based livelihoods, often themselves emersed in local belief systems and ecological relations, are time and again put at risk both through forest projects that alter labour, access, or property systems and through climate change itself, which alters the nature of forests more broadly.

Moving forward, we suggest three broad calls for action. The first is that those engaging in such case studies collaborate across regions to better understand trends and implications of green frontier-making across and between nations of the Global North, ideally drawing from, recognising, and engaging with the rich literature and experiences of those in the Global South. The second is that those working in the forestry domain consider this literature, take their lessons learned seriously, and avoid overly mitigative approaches to deal with local distrust or reluctance. Lastly, we are particularly critical of language and policy that approaches forests as relatively easy solutions for social and environmental woes. Moving toward a collective forested future means embracing the heterogeneity of what forests are, to whom, and sbeing cautious of repeating or amplifying existing inequalities.

CRediT authorship contribution statement

Agata A. Konczal: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization. **Jodie Asselin:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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