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Land as a global commons?

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ABSTRACT Land is becoming increasingly scarce relative to the demands of the global economy; a problem significantly exacerbated by climate change. In response, some have suggested that land should be conceptualised as a global commons. This framing might seem like an appealing way to promote sustainable and equitable land use. However, it is a poor fit for the world's land because global commons are generally understood as resources located beyond state borders. I argue that land can be seen to fit the definition of a global commons, if viewed in a particular way; namely, as a biogeochemical resource system that sequesters carbon emissions. The question then arises whether land should be conceptualised as a global commons. I consider this question by reference to three contemporary problems of land justice (land grabbing, forced displacement, and unfairness in land-based climate mitigation); arguing that the global commons framing will not be conducive to understanding or responding to these problems. I leave the question of how the global community should conceptualise land in the context of climate change open, claiming that any answer must include the voices and perspectives of those whose livelihoods and identities are closely connected to the land.

1. Introduction

Land is becoming increasingly scarce relative to the demands that the global economy is placing on it. In its 2019 report on *Climate Change and Land*, the Intergovernmental Panel on Climate Change (IPCC) notes that most of the world's highly productive land is already being used by human societies; and concludes that competition – driven by factors including land degradation and rising demands for food and energy – can be expected to enhance land scarcity in the future.¹ Climate change promises to exacerbate this problem – as do various policies that might be adopted in response to it.

Climate change poses a serious risk to land and existing forms of land use, with impacts such as sea-level rise and desertification predicted to submerge some regions and render others uninhabitable. But land practices will also significantly influence the progress of climate change. On the one hand, certain forms of land use – such as fossil fuel extraction, deforestation, and industrial agriculture – are key contributors to rising atmospheric concentrations of greenhouse gases (GHGs). On the other, the "land sink" – residing in the world's vegetation and soils – is estimated to have removed nearly 30% of anthropogenic carbon dioxide (CO₂) emissions from the atmosphere over the period 2008-2017.² Furthermore, given international failure to adequately reduce GHG emissions, many scientists and policymakers are now suggesting that efforts to limit global temperature rise to 1.5°C may have to incorporate massive-scale deployment of land-based mitigation

practices such as afforestation and bioenergy crop production; threatening to encroach on land that is already being used for other purposes, with potentially devastating consequences for food security and livelihoods.³

In a recent article in *Nature*, Felix Creutzig suggests that our response to such challenges should be to 'Govern Land as a Global Commons'. He claims that "land must be considered as a global commons – conceptually by researchers and legally by the international community", with an "overarching" case for this potentially commissioned by the UN secretary-general. Creutzig's reasoning appears to be that this move is necessary if land-based production and consumption is to be managed in a sustainable and equitable manner.⁴ The claim that *land should be conceptualised as a global commons* is the focus of this paper. It is contentious for at least two reasons: First, because global commons are generally thought to be resources residing beyond state borders, whereas most of the world's land is subject to state jurisdiction. And second, because efforts to conceptualise parts of the world as global commons are politically controversial. Whilst some suggest that the global commons designation stands in opposition to exploitation and hierarchy, others hold that it threatens to undermine valid local claims, thereby opening up new parts of nature to inequitable and undemocratic appropriation by global market actors.⁵

I start by outlining in more detail the apparent normative appeal of conceptualising land as a global commons (§2). I then discuss whether it makes sense to conceptualise land this way, given that most of the world's land is under state jurisdiction. I conclude one *can* make sense of the claim that land is a global commons, *if* land is viewed as a specific type of resource system (§3). The question remains, however, whether this conceptualisation is one that we ought to adopt. In §4, I provide reason to think that it is not, by arguing that this way of conceptualising land will not help us to understand or respond to three contemporary problems of land justice. I leave the question of how the global community *should* conceptualise land in the context of climate change open, suggesting that it cannot be answered in the absence of the perspectives and voices of those whose lives and identities are closely connected to the land (§5).

2. Why conceptualise land as a global commons?

Climate change is often understood as a problem involving overuse of a vital global commons.⁶ However, it has generally been suggested that the global commons in question is the world's atmosphere, not its land; with many theorists framing climate mitigation as a matter of preventing excessive use of the *atmospheric commons* as a dump for GHG emissions. The argument that tends to follow states that because the atmosphere is a global commons to which all human beings have a symmetrical claim, its capacity to assimilate GHGs – and thus the global GHG emissions budget – should be distributed on an equal per capita basis. Brian Barry sums up this idea succinctly when he states that: "obviously, treating the atmosphere as a global commons to be divided up equally would itself constitute a just distribution of a scarce resource".⁷

This argument is deceptively straightforward because it overlooks the fact that the planet's oceanic and land sinks (soils and vegetation) play a vital role in removing CO₂ – the most significant anthropogenic GHG – from the atmosphere. Increasing recognition that climate change is also a problem involving overuse and degradation of these sinks is to be welcomed. But this unsettles the case for equal per capita emissions because whilst the ocean is often named as a global commons,⁸ land is not. Some might hope, however, that by conceptualising land as a global commons, it will be possible to preserve an argument for emissions egalitarianism. Steve Vanderheiden considers, though ultimately rejects, such a move; concluding that "assigning all resources to the global commons in order to more equitably assign carbon emissions rights would be too hasty".⁹ Vanderheiden is correct here, because *if* good reasons can be provided for equality in emission shares, then one can argue that although land is not a global commons, use of and control over land should be constrained or modified insofar as this is necessary to realise such distribution.¹⁰ The case for emissions egalitarianism therefore does not depend on land being deemed part of the global commons.

The idea that there should be equal (and sustainable) sharing of the global commons nevertheless remains influential, appearing to lie behind Creutzig's claim that land should be reconceptualised as a global commons in order to ensure equitable sharing of its "fruits" more generally speaking (taken to include "food, clothing, housing and medicine"). Creutzig refers to the global commons as "shared resources in which everyone has an *equal* stake" and suggests that governing land as a global commons is necessary in order to "achieve an open world-trade system that manages land-based production and consumption footprints in a *sustainable and equitable* way". The German Advisory Council on Climate Change (WBGU), on the other hand, conceptualises land as a global commons in order to emphasise the need for "Globally sustainable land stewardship", stating that: "humankind must accept and assume its responsibility for land in order to mitigate climate change, conserve biodiversity and safeguard food security"; a responsibility that it must discharge nationally and "enforce" internationally. 12

Though the idea that land might be considered a *global* commons is seemingly novel, calls to designate parts of the world as commons have a long history and have been much discussed by theorists of environmental justice. Some of this literature would also seem to suggest that the global commons framing is an appealing response to problems of land degradation and competition in a world undergoing climate change. Andrew Cumbers, for example, defends commons discourse on the basis that it "emphasizes the importance of shifting away from the exploitative, alienating and hierarchical relations of contemporary capitalism towards more democratic, participatory and collaborative forms of human relations". James McCarthy similarly suggests that calls for new commons are often "counterhegemonic projects", which serve to remind us that "property relations are social, not natural, and that profoundly alternative social relations and values are entirely thinkable". The claim that land should be conceptualised as a global commons might therefore be seen as a call to move away from exploitative and hierarchical ways of relating to, sharing and using land, and towards more democratic and collaborative forms of land use.

In the next section, I discuss whether land can be seen to fit the description of a global commons, given that most of it is subject to state jurisdiction. Having concluded that we *can* make sense of the claim that land is a global commons, *if* land is viewed in a particular way, I then proceed to discuss whether this framing is actually as appealing as it might at first seem.

3. Can land be conceptualised as a global commons?

A tract of land is often considered to be a quintessential example of a *local* commons. For example, in Garrett Hardin's infamous paper on 'The Tragedy of the Commons', the commons is conceived as an open-access pasture. The claim that land should be considered a *global* commons is, however, unusual and in need of further explanation.

According to one fairly dominant understanding, the global commons are internationally shared resources located beyond state borders. This fits the definition adopted by the Organisation for Economic Cooperation and Development and by many theorists of law. Nico Schrijver, for example, states that:

The term 'global commons' denotes areas and natural resources that are not subject to the national jurisdiction of a particular state but are shared by other states, if not the international community as a whole. The high seas, the deep seabed, outer space, the Moon and other celestial bodies, as well as the two polar regions, can be viewed as global commons because no national entity can claim sole jurisdiction over these physical areas.¹⁷

This appears to be a fairly common-sense definition of 'the global commons', classic examples of which are the atmosphere and oceans lying beyond state boundaries. Those who defend equal sharing of the global commons also seem to assume a definition along these lines, in order to support their premise that human claims to the global commons are symmetrical. Land, however, cannot be understood as a global commons in this sense. Though some significant areas of land – for example, the land of Antarctica – are not subject to the jurisdiction of any one state, most land is under the jurisdiction of some state or other. Thus, on the customary legal interpretation, the claim that land is a global commons appears to be a non-starter.

Of course, one could argue that although land does not *currently* fit the customary legal definition of a global commons, existing state entitlements should be revised so that it can be recategorized as such. However, whilst nothing that I say in this piece should be taken to suggest that state entitlements over land should be left as they are, the question remains whether any revision to such entitlements should be undertaken with the goal of rendering land a global commons (to be shared by other states or the international community). One important alternative to consider would be for exclusive jurisdiction over land to be devolved downwards to more local communities. But in any case, such overhaul of the current state system does not appear to be what proponents of the global commons framing have in mind.

As noted in §2, the WBGU envisions human responsibility for land as a global commons to be enforced internationally, but ultimately discharged by nation-states. Creutzig, on the other hand, proposes mechanisms for more equitable sharing of land's "fruits" that appear purposely designed to be compatible with state jurisdiction; for example, "taxing land or... redistributing produce and other profits derived from land". 19 Creutzig's claim that land should be conceptualised as a global commons therefore remains somewhat puzzling, since not only does land fail to fit this description according to the customary legal interpretation, but neither would land *need* to fit this description in order to defend or implement his proposed mechanisms for more equitable sharing.

There is, however, another way of understanding what it is to be a global commons. As McCarthy explains, most commons scholars distinguish between 'commons' as *a type of property or governance regime* that may apply to resources (a common property regime), and 'commons' as *a resource possessing certain characteristics* (a common-pool resource).²⁰ The legal definitions discussed above adopt the former, regime interpretation; with the extent of the global commons determined by the boundaries of existing state jurisdictions. The second interpretation, on the other hand, can be understood by reference to Elinor Ostrom's renowned work on common-pool resources (CPRs).²¹

A CPR is a resource characterised by two essential features:

- 1. Difficulty of exclusion
- 2. Rivalness (or subtractability)

Difficulty of exclusion means that it is costly, if not impossible, to exclude potential appropriators from withdrawing resource units produced by the CPR; whilst rivalness means that when one appropriator withdraws resource units from the CPR, this subtracts from the ability of others to do likewise.²² These two features make CPRs prone to overuse. Both local and global CPRs will be characterised by these features, but I take it that they will be distinguished by the scope of (1): for a local CPR, difficulty of exclusion is restricted to a set of local appropriators; but for a global CPR, difficulty of exclusion applies for appropriators across the planet.

Any area of land from which it remains difficult to physically exclude local appropriators from withdrawing resource units by, say, gathering wood, grazing animals, or dumping solid waste will constitute a local CPR. Land does not, however, standardly fit the description of a *global* CPR, since such difficulty of exclusion does not appear to arise at the global level. Even if there are no physical, social or legal barriers preventing local entry to a tract of land, state borders and brute geographical distance will effectively serve to block physical access for most individuals worldwide. On the face of it, then, land does not fit the definition of a global commons under the CPR interpretation either, because it is not subject to an exclusion problem that is global in scope.

However, the reasoning in the previous paragraph depends on a specific understanding of land as a resource system. In particular, land is here viewed as a *material* system producing resource units – such as biomass, fodder, and solid waste assimilation capacity – that can

only be appropriated via local access. But in the context of climate change, land is increasingly being viewed and valued as a different type of resource system. Namely, as a "biogeochemical" resource system that acts as a vital sink for atmospheric CO₂.²³ And if understood as a biogeochemical resource system that produces units of what we might term 'carbon sequestration capacity', then land may be seen to fit the description of a global CPR after all.

Creutzig never actually defines what he means by 'land', but the WBGU adopts the UN Convention to Combat Desertification definition of land, as "the terrestrial bio-productive system that comprises soil, vegetation, other biota, and the ecological and hydrological processes that operate within the system". 24 Under this definition, land can be viewed as a resource system that produces units of carbon sequestration capacity through its vegetation and soil sinks. The carbon sequestration capacity of land can be enhanced (for example, by afforestation), but has become scarce relative to the demands that the global economy is placing on it. This means that whenever an agent appropriates from the land's capacity to sequester carbon (most obviously, by emitting CO₂), this subtracts from the ability of other agents to do likewise, with the result that CO₂ accumulates in the atmosphere. Thus, when viewed as a carbon sink, land appears to be characterised by rivalness.

Furthermore, insofar as it is difficult to prevent agents worldwide from emitting CO_2 , it is also difficult to prevent them from appropriating units of the land's carbon sequestration capacity. This makes the land sink subject to exclusion difficulties that are global in scope. It also means that when a group enhances the carbon sequestration capacity of land (through, say, afforestation), they will not be able to exclude other appropriators worldwide from enjoying any improvement that this constitutes to the resource system; potentially disincentivising such enhancements. (If a community enhances the land sink by planting a forest, any reduction in atmospheric CO_2 concentrations that this promises can be cancelled out by another community correspondingly increasing its GHG emissions).

Thus, although land does not seem to fit the definition of a global commons under a legal, regime-focused interpretation, it can potentially be understood as such under a resource-system interpretation. That is, the claim that 'land is a global commons' could be read as shorthand for something like 'land, understood as a biogeochemical resource system that sequesters carbon, is a global common-pool resource'. This might serve to address the objection that to frame land as a global commons is simply incorrect. It is not unusual to refer to global CPRs using the less technical (albeit more ambiguous) term 'global commons';²⁵ or to use the term 'commons' to refer to the "resource domains in which common pool resources are found".²⁶ However, the move from describing land (under a specific definition, focused on just one of its capacities) as a global CPR, to *land itself* as a global commons, is significant; and raises the question whether this shorthand is one that we ought to adopt.

One important thing to note is that this is only one way to view land, resulting from a specific definition of land itself, and a focus on just one of the capacities that land possesses according to that definition. From other perspectives – concerned with the many other goods that land provides, and other ways of understanding and relating to it – land will be

various other things, including a vital local commons. This is both in the sense of land often constituting a local CPR (a resource system from which it is difficult to exclude a restricted set of local appropriators from withdrawing subtractable resource units); and in the sense of land often being subject to local common property regimes (according to one estimate from 2011, as much as 65% of the world's land constituted a local commons in the sense that "communities possess and use [it] collectively in accordance with community-derived norms")²⁷. The claim that 'land is a global commons' therefore seems to overlook significant complexity in the nature of land, its many capacities, and its relationship to different human communities.

Another important thing to note is that it will be difficult to divorce this shorthand from the more customary interpretation introduced at the start of this section, resulting in the implication that land is akin to global commons like the atmosphere and high seas: a global resource, beyond the realm of local sovereignty or jurisdiction, that is subject to global claims and to be shared by the international community of states. In line with the influential arguments about distributive justice and the global commons introduced in §2, another likely implication is that fair international sharing will primarily consist in something like equal per capita allocation. In short, then: in moving from the claim that 'land, understood as a biogeochemical resource system that sequesters carbon, is a global common-pool resource', to the claim that 'land is a global commons', we move from a descriptive claim that focuses on just one of land's capacities, to a value-laden claim about land itself. In the next section, I provide some reasons for resisting the adoption of this latter, value-laden claim.

4. Should land be conceptualised as a global commons?

In this section, I discuss whether land *should* be conceptualised as a global commons. This is to engage in what Sally Haslanger terms an "ameliorative project". Unlike in §3, my goal is not to ascertain whether land *could fit the description* of a global commons, but rather to consider whether this way of conceptualising land will serve our legitimate purposes. This is a normative rather than a descriptive endeavor.²⁸

I take those legitimate purposes to include understanding and responding to three important and interrelated problems of land justice, which I here discuss in turn: (1) land grabbing; (2) forced displacement; and (3) unfairness in land-based climate mitigation. I argue that the idea of land as a global commons is unlikely to serve us well in this regard.

4.1. Land grabbing

Transnational acquisition of land has been on the rise for some years, with a significant proportion of such deals targeting land on the African continent.²⁹ In many cases, these acquisitions are denounced as 'land grabs'. What makes an acquisition into a land grab is a matter of some contention. I will take a land acquisition to constitute a land grab when it is procedurally or substantively unjust: for example, in virtue of being coercive or corrupt,

violating human rights, or having other unjustifiable social or environmental impacts (such as forcibly displacing existing communities or undermining local food security).³⁰

According to Jampel Dell'Angelo *et al.*, the main means of food production globally is small-scale farming, with the world's rural populations depending heavily on local land for self-subsistence. Much of the land that small-scale farmers rely on counts as a local commons in the sense that it is governed by customary, traditional or indigenous common property regimes. Often such regimes work well for local commoners, but they can be rendered insecure by outside factors.³¹ As noted in §3, by some estimates, most of the world's land is governed by some form of local common property regime. However, governments only formally recognise local commoners' rights over a small fraction of this area.³² This leaves such land highly vulnerable to expropriation, and Dell'Angelo *et. al.* find reason to believe that land grabbing does indeed preferentially target local commons. When land is governed under a local common-property regime, "farmers and local users may be unable to defend their customary rights and successfully compete with external actors".³³ Land grabbing is often facilitated by local politicians and government agencies. The power relations present in such transactions work against marginalised groups including indigenous communities and women.³⁴

In thinking about how to conceptualise land, one of our aims should be to better understand and oppose the problem of land grabbing. Will the global commons framing be conducive to this? Some theorists of environmental justice suggest that far from being helpful here, the global commons framing will serve to *facilitate* land grabs. As noted in §1, efforts to frame parts of the world as global commons are politically controversial. Even McCarthy, cited in §2 as viewing calls for new commons as "counterhegemonic projects", is sceptical when it comes to calls for new *global* commons. McCarthy suggests that to claim biodiversity as a global commons, for example, would serve "to override many national or indigenous claims, usually without consultation with or benefit to those most affected". This can make global commons "profoundly undemocratic" and serve to reinforce, rather than redress, existing global inequalities.³⁵

Similar concerns are expressed by Nicholas Hildyard, who criticises efforts by the Global Environment Facility (GEF)³⁶ to designate the atmosphere and biodiversity as global commons. Hildyard suggests that this would serve "to override the local claims of those who rely on local commons and effectively assert that everyone has a right of access to them, that local people have no more claim to them than a corporation based on the other side of the globe". ³⁷ Maria Mies and Veronika Bennholdt-Thomsen likewise claim that when global actors and international agencies deem local resources to be part of the global commons, this simply serves to open up access to transnational corporations, resulting in the expropriation of local communities. This means that "the invention of global commons… in reality is an enclosure". ³⁸

Would designating land a global commons *facilitate* land grabbing by overriding local land claims? This prediction is difficult to assess, but in this section I give some reasons to think that conceptualising land as a global commons would at least prove *counterproductive* to our attempts to understand and address this problem. To understand the injustice of land

grabbing, we need to attend to the claims of local communities over specific lands; and in particular, the claims that communities have over land as a *local* commons.³⁹ To oppose land grabbing, these communities must be empowered to defend their claims against expropriation by outside agents, including those of their own state and global market actors.

The global commons framing does not seem helpful here insofar as it directs our attention away from the local and up to the global level. As explained in the previous section, the global commons are generally understood as global resources that are subject to (equal) global use claims; resources beyond the boundaries of local jurisdiction and shared by the international community of states. It is near impossible to find reference to parts of the world that are considered *both* a global and a local commons. To describe land as a global commons therefore appears to place it in a special category of resources, for which the primary normative goal is the achievement of fair and sustainable use across a set of (symmetrically situated) global claimants. Thus, whether or not McCarthy is correct that "To assert a commons at one scale is *almost necessarily to deny claims at another*";⁴⁰ to assert that land is a commons at the global scale does at least imply that global claims to land as a global resource are the main normative consideration here (rather than local claims to land as a local commons).

In response to this, proponents of the global commons designation might argue that it does not completely overlook the claims of local communities. After all, this framing often serves as a prelude to an argument that *everyone* in the world has a symmetrical claim to a resource; and thus, the global claims highlighted by this framing might also be understood as *local claims to an equal share* of the world's land (or its fruits). In the case of land grabbing, however, the local claims at stake are not adequately understood as claims to a generic, equitable share of the world's land-base. The claims at stake are those that local communities possess to the *particular* lands on which they live and work. These particular claims are not well captured when land is framed as a global resource that is subject to symmetrical, and undifferentiated, global claims. The global commons framing thus does not look likely to assist us in understanding the injustice of land grabbing, because it does not leave us well equipped to attend to – or understand – the local claims that are at stake here.

This framing also does not appear well placed to empower local communities to defend their land from expropriation by outside agents. In fact, its focus on global claims to land may instead appear to unsettle these local claims; by pitting them against the (more powerfully backed) claims of the international community. This problem can be illustrated by considering the example of global claims to use the world's land as a carbon sink. My concerns might at first seem to be misplaced here. Chris Armstrong, for example, has argued that the satisfaction of these global claims is perfectly compatible with respecting local claims to engage with land in other ways, because:

We can share the sequestering capacity of the forests fairly without moving trees around, and in that sense [local] attachments can remain undisturbed... someone's ability to live in a rainforest unmolested is compatible with granting outsiders the

right to emit greenhouse gases, and hence sharing that rainforest's absorptive capacity.⁴¹

Now, it is true that global claims to use the land sink can often be satisfied whilst leaving local claims untouched. Forests were, after all, sequestering anthropogenic carbon long before the international community became aware that they performed this vital function. However, local land claims may be unsettled when efforts are made to *protect* global claims to the land sink through preservation; for example, in the case of forest conservation schemes that have been reported to displace existing communities. ⁴² Local claims may also be unsettled by efforts to *better satisfy* global claims to the land sink through enhancement; for example, when afforestation schemes spur competition over land that local communities are currently using for other purposes. Measures designed to secure and satisfy global claims to land thus *can* incentivise, or facilitate, land grabbing; so we should be hesitant about conceptualising land in a manner which suggests that global claims are the main normative consideration in matters of land use.⁴³

The global commons framing thus looks likely to be counterproductive in the context of land grabbing, because it will not help us to understand the injustice of this phenomenon, or empower local communities to resist it. The potential for the global commons framing to unsettle local land claims in fact appears to be something that Creutzig is aware of. He takes care to clarify that he does not envision the global commons framing interfering with private property claims, stating that such property "will remain protected with the common ownership of global land". However, even if the global commons designation will not unsettle *private* property in land, it is not so obvious that the same applies for the local common property regimes that are already vulnerable to unjust expropriation. In a world afflicted by the problem of land grabbing, it thus seems that we should be cautious about efforts to designate land as a global commons.

4.2. Forced displacement

The forcible removal of communities from their lands is a common element of land grabbing, and can result from other injustices such as violent conflict. Forced displacement (and "effective loss of land rights") will predictably be exacerbated by the climate impacts resulting from international failures to reduce GHG emissions, ⁴⁵ and from certain responses to climate change (such as the construction of hydroelectric dams). Will the global commons framing help us to understand and address the problem of forced displacement? Plausibly not because once again, it is local claims to *particular* lands that we need to attend to here, not generic global claims. This problem calls for attention to the claims of communities to remain on the lands where they justly reside, or to return to the lands from which they were wrongfully evicted.

The proponent of the global commons framing might hope, however, that it could at least prove helpful for those who are *permanently* displaced, say due to sea-level rise. Perhaps a demand for equitable sharing of the global commons could lend support to claims to relocate to a new land, potentially grounding an argument similar to that of Mathias Risse,

according to which a right to relocation can be derived from humanity's Common Ownership of the Earth.⁴⁶ Even in the case of permanent displacement, however, the idea of land as a global commons remains a poor fit for understanding and addressing this problem.

As explained in §3, global commons are customarily understood as resources not subject to state jurisdiction. However, a significant problem faced by those who *are* permanently displaced is that land does not fit this description. All the world's habitable land is under the jurisdiction of some state or other, throwing up significant barriers for those who are forced to relocate. The control that states exercise over land receives strong international backing and (unlike the land claims of communities with insecure tenure) is not likely to be unsettled by merely conceptualising land as a global commons. Such jurisdiction means that displaced people will often find themselves prevented from migrating to other countries by border restrictions that are backed up by military force, with potentially lethal consequences. State powers of border policing also render the common-pool resource interpretation of a global commons a poor fit here, given that one of the defining features of a global CPR is that it is subject to an exclusion problem with global scope. Whilst it might be difficult to exclude individuals worldwide from using land-based carbon sinks, the problem of forced displacement shows that *physical* exclusion from land, as a place to live, is sometimes far too easy.

In order to fully understand and address the problem of forced displacement, then, it seems that we must attend to the ways in which land is precisely *not* a global commons under either the regime or resource-system interpretations. Far from helping us to address the issue of forced displacement, then, merely reconceptualising land as a global commons would appear to belie how existing patterns of exclusive control over land exacerbate this problem.

4.3. Unfairness in land-based climate mitigation

As explained in §1, some researchers and policymakers are now suggesting that the global response to climate change may have to incorporate massive-scale deployment of land-based mitigation practices, including greenhouse gas removal (GGR) techniques such as bioenergy with carbon capture and storage (BECCS) and afforestation. Creutzig, for example, claims that "To sequester atmospheric carbon dioxide, an area the size of India will probably be needed to grow energy crops, and a similar area could be required for afforestation". A crucial question that arises is on what land such responses might justifiably be sited, and on whose terms.

Discussions of climate justice have long pointed towards the shared conclusion that, roughly speaking, it is the wealthy industrialised world that should primarily bear the costs of climate action: being both the major contributors to, and beneficiaries from, activities that have created this problem; as well as most able to bear these costs.⁵⁰ It thus seems that any burdens associated with the implementation of land-based climate mitigation should primarily be borne by these parties. These burdens will involve implementation costs; loss of land that was being, or could be, used for other purposes; and potential negative knock-on

effects. Such effects include increased competition over land and water, with associated conflicts; food insecurity; biodiversity loss; environmental degradation; the reinforcement of existing inequalities; and the undermining of livelihood activities, employment, and social systems.⁵¹

The IPCC notes that there is some reason to worry that the promise of future GGR will be used as an excuse to delay ambitious emission reductions; and that this would constitute a problematic burden-shifting exercise, whereby the costs of climate mitigation and unabated climate change – including increased pressure on land – are transferred to future generations. But we should note that the possibility of land-based climate mitigation creates opportunities not just for intergenerational, but also *global*, burden-shifting. Whereas the wealthy high-emitting world is primarily responsible for bearing the costs of climate action (and clearly possesses the greatest potential for emissions reductions), measures such as afforestation and BECCS – along with their associated costs – may instead be sited on the land of poorer, low-emitting communities.

Some scientific estimates of global GGR potential render this possibility visible. One study identifying land that would be apt for forestation, for example, suggests that trees could be planted across vast tracts of land on the African continent.⁵³ As Alfan Rija from the Sokoine University of Agriculture, Tanzania, says, a salient possibility thus arises that GGR programs "could be used by stronger countries... to craft global policies to exploit land and forests of the tropical world".⁵⁴ The potential for exploitation might be understood in two senses. First, the land of the Global South may be exploited insofar as it is used to shift the costs of GGR away from the wealthy industrialised parties who are responsible for bearing them.⁵⁵ But second, the supposed availability of land in the Global South may be exploited as an excuse for business as usual and continued inaction on climate change, the idea being that failures to reduce GHG emissions can be counterbalanced by greater use of land-based climate mitigation. This possibility is noted by international peasants' movement La Via Campesina. In a 2016 statement titled 'Our land is worth more than carbon', they oppose the idea that farming land could be turned into "an accounting tool for managing the climate crisis", expressing concern that soil's capacity as a carbon sink will be used as "an excuse for public inaction".56

Both forms of exploitation would constitute significant unfairness in land-based climate mitigation. This burden-shifting exercise would also exacerbate the two land justice problems already discussed: by resulting in land grabbing for GGR purposes,⁵⁷ with the potential consequence that existing communities are forcibly displaced from their lands. Such injustice would be compounded by the context in which it arises: namely, a context in which colonialism and other forms of exploitation have long served to forcibly extract resources from the Global South for others' benefit. Amity Doolittle claims that at the 2008 World Conservation Congress in Barcelona, indigenous representatives were dismayed that "the global north might be able to avoid reducing their own carbon emissions by simply buying the rights to carbon in developing countries". The origins of this dismay appeared to be a feeling among indigenous representatives that such a policy would constitute "the

latest form of colonialism in which their resources were to be extracted to benefit other nations".⁵⁸

As explained in §2, some might think that conceptualising land as a global commons would be a good move in the context of climate mitigation, serving to support an argument that the carbon sequestration capacity of land should be shared equally. However, as should now be clear, fairness in land-based climate mitigation is not just about securing equitable emission shares for those who want to dump GHGs into the sky, but also about recognising and respecting the claims of communities on the ground whose land might be unjustly appropriated for BECCS or afforestation projects. And once again, rather than helping us to understand and defend these latter claims, the global commons framing appears more likely to unsettle them. As explained in §4.1, efforts to secure global use claims by preserving the land sink or better satisfy such claims by enhancing it can serve to unjustly displace local communities and existing forms of land use. The global commons designation is not well equipped to oppose such unfairness in land-based climate mitigation, because when the world's land is framed as a shared resource to which all human beings have symmetrical claims, local land use everywhere may suddenly appear to become anyone's business. As Goldman puts it:

By shifting the commons inquiry from local to global, pastures are no longer simply defined as sites of conflict between or amongst pastoralists and farmers, but are rationalized as small fragments of terrestrial biomass whose misuse negatively affects not just local or regional populations, but us all. In other words, local commons-use patterns in the South are also a problem for the North.⁵⁹

Once again, then, the idea of land as a global commons may unsettle the claims of local communities to resist outside interference with the land on which they depend – where in this case, such interference would take the form of international efforts to enhance the capacity of the global land commons to sequester anthropogenic carbon emissions. To understand and oppose the threat of unfairness in land-based climate mitigation, land must instead be conceptualised in a way that attends to the claims of local communities; and in particular, those communities who bear little responsibility for the problem of climate change, but who are at risk from the land-based mitigation measures required to clean up a mess of the rich, industrialised world's making.

5. How should land be conceptualised?

At the start of this paper, I introduced Creutzig's claim that land should be conceptualised and governed as a global commons, with the case for this to be made by researchers, the international community, and the UN secretary-general. In §4, I pushed back against this claim, suggesting that this way of conceptualising land does not appear conducive to understanding or responding to three contemporary land justice challenges. The question that appears to remain is: how *should* the global community conceptualise land in the context of climate change?

In this brief closing section, I suggest that whilst it will be important to address the concerns that I have raised when answering this question, this matter must ultimately be decided via an appropriately inclusive process. As the preceding discussion indicates, it is not only struggles over nature itself that are political, but also struggles over the meaning of nature. The problem of climate change calls for a global conversation about land and land use, but this conversation is likely to be a very challenging one because, as Avery Kolers puts it, "land is not just one thing". Different individuals and communities conceptualise land in different ways, possessing different ontologies of land, and different understandings of how humans relate (and ought to relate) to it. These conceptions — which Kolers refers to as "ethnogeographies" — are extremely important to individuals and communities, because it is through them that we make and understand the places that we live. The parties who stand to be impacted by global conversations about land and land use will thus possess different, but deeply held, ethnogeographies of land. An appropriately inclusive global conversation about land will be open and attentive to such difference.

The political character of meaning-making concerning land and other parts of the world is highlighted by the 2000 Hague Declaration of the Second International Forum of Indigenous Peoples and Local Communities on Climate Change. This declaration objects not only to the policies being proposed at the international climate negotiations, but also the "concepts" and "definitions" being promoted, for example stating that:

We are... profoundly concerned that the measures to mitigate climate change currently being negotiated are based on a worldview of territory that reduces forests, lands, seas and sacred sites to only their carbon absorption capacity. This world view and its practices adversely affect the lives of Indigenous Peoples and violate our fundamental rights and liberties, particularly, our right to recuperate, maintain, control and administer our territories which are consecrated and established in instruments of the United Nations.⁶²

The global commons framing for land could be the subject of similar critique. In §3, I found that land best fits the description of a global commons when viewed as a biogeochemical resource system that sequesters CO₂. The claim that land is a global commons thus may also appear to be based on a worldview that reduces land to its carbon absorption capacity. There is no denying that this capacity is extremely important. However, if the value of land as carbon sink is permitted to dominate, then it will crowd out other (and more local) understandings of land and its value. This not only threatens material harms (by calling into question the claims of local communities to resist outside interference with their lands for the sake of carbon sequestration), but might also be viewed as unjust in itself: as a form of epistemic injustice whereby marginalised groups are excluded from processes of meaningmaking concerning the lands on which they live.⁶³

Our response to such concerns must be to ensure these processes of meaning-making are appropriately inclusive. Such inclusion can be viewed both as a demand of justice in itself, and as key to avoiding the material harms that may result if the global community conceptualises land in ways that serve some interests over others. The question of how the global community should conceptualise land in the context of climate change thus cannot

be answered in the absence of the voices and perspectives of those whose lives and identities are closely connected to the land.

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NOTES

¹ IPCC, Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems, P.R. Shukla, J. Skea, E. Calvo Buendia, V. Masson-Delmotte, H.-O. Pörtner, D. C. Roberts, P. Zhai, R. Slade, S. Connors, R. van Diemen, M. Ferrat, E. Haughey, S. Luz, S. Neogi, M. Pathak, J. Petzold, J. Portugal Pereira, P. Vyas, E. Huntley, K. Kissick, M. Belkacemi, J. Malley (eds.), (in press, 2019), pp.90-91.

² IPCC op. cit. p.155. A sink is a mechanism that removes GHGs from the atmosphere.

³ According to the IPCC, "Existing scenarios estimate the global area required for energy crops to help limit warming to 1.5°C in the range of 109–990 Mha [megahectares], most commonly around 380–700 Mha. Most scenarios assume very rapid deployment between 2030 and 2050, reaching rates of expansion in land use... which are unprecedented for crops and forestry reported in the FAO database from 1961. Achieving the 1.5°C target would thus result in major competing demands for land between climate change mitigation and food production, with cascading impacts on food security" (op. cit. p.449). By way of reference, Australia is approximately 766 Mha in area (Hannah Ritchie, Max Roser, 'Land Use; Land Area' (2013), accessed 28 January 2021 from: https://ourworldindata.org/land-use). For an illustration of some of the risks associated with such response options, see IPCC op. cit. p.25.

⁴ Felix Creutzig, 'Govern land as a global commons', *Nature News* (2017): 28-29.

⁵ See, e.g., Andrew Cumbers, 'Constructing a global commons in, against and beyond the state', *Space and Polity*, 19, 1 (2015): 62–75; Giovanna Di Chiro, 'Beyond Ecoliberal "Common Futures"', in Moore, Kosek, Pandian (eds.), *Race, Nature, and the Politics of Difference* (Duke UP, 2003): 204-232; James McCarthy, 'Commons', in Castree, Demeritt, Liverman, Rhoads (eds.), *A Companion to Environmental Geography* (Wiley-Blackwell, 2009), 498-514, pp. 506-7, 510.

⁶ See, e.g., William D Nordhaus, *Managing the global commons: The economics of climate change* (MIT Press, 1994).

⁷ Brian Barry, *Why Social Justice Matters* (Cambridge: Polity Press, 2005), p.268. For a list of other theorists who adopt this framing, see Megan Blomfield, *Global Justice, Natural Resources and Climate Change* (Oxford University Press, 2019), §2.1.

⁸ See e.g. OECD, 'Glossary of Statistical Terms; Global Commons', accessed 15 June 2021 from: https://stats.oecd.org/glossary/detail.asp?ID=1120.

⁹ Vanderheiden, 'Territorial rights and carbon sinks', *Science & Engineering Ethics*, 23, 5 (2017): 1273-1287, pp.1284-5.

¹⁰ And it should be noted that there is debate over whether good reasons *can* be provided for the equal per capita view. Simon Caney, for example, is sceptical about this ('Just Emissions', *Philosophy & Public Affairs*, 40, 4 (2012): 255-300). Christian Baatz and Konrad Ott, on the other hand, claim that *whilst the global commons*

argument for emissions egalitarianism fails, this view can nevertheless be defended on practical grounds ('In Defense of Emissions Egalitarianism?', in Meyer, Sanklecha (eds.), Climate Justice and Historical Emissions (Cambridge University Press, 2017): 165-197).

- ¹¹ Creutzig op. cit.; emphases added.
- ¹² WBGU German Advisory Council on Global Change, 'Rethinking Land in the Anthropocene: Summary' (Berlin: WBGU, 2020), p.3.
- ¹³ Cumbers op. cit. p.62.
- ¹⁴ James McCarthy, 'Commons as counterhegemonic projects', *Capitalism, Nature, Socialism*, 16, 1 (2005): 9-24, p.16.
- ¹⁵ Garrett Hardin, 'The Tragedy of the Commons', *Science*, 162, 3859 (1968): 1243-48. It should be noted that Hardin's focus in this paper was not land use, but what he termed "The population problem"; and his concerns about population growth (and "overbreeding", p.1246) appear to have had racist motivations. See: Southern Poverty Law Center, 'Garrett Hardin', accessed 26 January 2021 from: https://www.splcenter.org/fighting-hate/extremist-files/individual/garrett-hardin.
- ¹⁶ OECD op. cit.; Klaus Bosselman, *Earth Governance: Trusteeship of the Global Commons* (Edward Elgar Publishing, 2015), p.71; John Vogler, 'Global commons revisited', *Global Policy*, 3, 1 (2012).
- ¹⁷ Nico Schrijver, 'Managing the global commons: common good or common sink?' *Third World Quarterly*, 37, 7 (2016): 1252-1267, pp.1252-3.
- ¹⁸ For an argument in support of this alternative, see Blomfield 2019 op. cit. Chs. 6-7.
- ¹⁹ Creutzig op. cit. p.29.
- ²⁰ McCarthy 2009 op. cit. p.505.
- ²¹ Elinor Ostrom, *Governing the Commons* (Cambridge University Press, 1990).
- ²² Elinor Ostrom, Joanna Burger, Christopher B Field, Richard B Norgaard, David Policansky, 'Revisiting the Commons: Local Lessons, Global Challenges', *Science*, 284 (1999): 278-282, pp.278-279.
- ²³ See IPCC op. cit. pp. 8, 46.
- ²⁴ WBGU op. cit. p.3.
- ²⁵ See e.g. Ostrom et. al. op. cit. p.281.
- ²⁶ Susan J Buck, *The Global Commons* (Washington DC: Island Press, 1998), p.5.
- ²⁷ International Land Coalition, 'The tragedy of public lands: The fate of the commons under global commercial pressure' (2011), Executive Summary, accessed 26 January 2021 from: https://www.iccaconsortium.org/wp-content/uploads/2015/08/legal-example-the-tragedy-of-public-lands-2011.pdf.
- ²⁸ Sally Haslanger, 'What are we talking about? The semantics and politics of social kinds', *Hypatia*, 20, 4 (2005):10-26, p.11.
- ²⁹ The Land Matrix, 'Global Observatory'. Accessed 5 February 2021 from: https://landmatrix.org/observatory/global/.
- ³⁰ See Jampel Dell'Angelo, Paolo D'Odorico, Maria Cristina Rulli, Philippe Marchand, 'The Tragedy of the Grabbed Commons: Coercion and Dispossession in the Global Land Rush', *World Development*, 92, (2017):1-12, pp.2-3. Poul Wisborg similarly defines land grabbing as "ethically unacceptable land acquisition" ('Human Rights Against Land Grabbing? A Reflection on Norms, Policies, and Power', *Journal of Agricultural and Environmental Ethics*, 26, (2013): 1199–1222, p.1216).
- ³¹ Dell'Angelo et. al. op. cit. p.1.
- ³² The IPCC, citing the Rights and Resources Initiative, suggests around 15% (IPCC op. cit. p.749).
- ³³ Dell'Angelo et. al. op. cit. pp.1-2.
- ³⁴ IPCC op. cit. pp. 750, 90.
- ³⁵ McCarthy 2005 op. cit. pp.19-20.
- ³⁶ The GEF is an international financial organisation, established at the 1992 Rio Earth Summit to fund environmental projects. The GEF now also lists land as a global commons ('Safeguarding the Global Commons', accessed 28 January 2021 from: http://www.thegef.org/topics/safeguarding-global-commons).
- ³⁷ Nicholas Hildyard, 'Foxes in Charge of the Chickens' in W Sachs (ed.) *Global Ecology* (London: Zed Books, 1993): 22-35, p.34. See also: Di Chiro, op. cit. pp.205-13; Michael Goldman, 'The Political Resurgence of the Commons' & 'Inventing the Commons' in Goldman (ed.) *Privatizing Nature: Political Struggles for the Global Commons* (London: Pluto Press, 1998): 1-53; Niraja Gopal Jayal, 'Ethics, Politics, Biodiversity: A View from the South', in Light, De-Shalit (eds.) *Moral and Political Reasoning in Environmental Practice* (MIT Press, 2003): 295-316, p.301. Similar concerns have also been expressed about efforts to deem resources within territorial boundaries part of the *Common Heritage of Humankind*. See e.g. Werner Scholtz, who argues that this may

serve to expropriate the resources of the developing world for the benefit of the rich ('Common heritage: saving the environment for humankind or exploiting resources in the name of eco-imperialism?', *The Comparative and International Law Journal of Southern Africa*, 41, 2 (2008):273–293).

- ³⁸ Maria Mies and Veronika Bennholdt-Thomsen, 'Defending, Reclaiming and Reinventing the Commons', Canadian Journal of Development Studies, 22, 4 (2001): 997-1023, pp. 997, 1010, 1014. See also: Silvia Federici, 'Re-Enchanting the World: Feminism and the Politics of the Commons' (PM Press, 2018), pp. 131, 146.
- ³⁹ For an illuminating discussion of the injustice of land grabbing, see: Anna Jurkevics, 'Land Grabbing and the Perplexities of Territorial Sovereignty', *Political Theory*: 1-27, doi: 10.1177/00905917211008591.
- ⁴⁰ McCarthy 2005 op. cit. p.19; emphasis added.
- ⁴¹ Chris Armstrong, *Justice and Natural Resources* (Oxford University Press, 2017), pp. 17, 123-4.
- ⁴² See e.g. Juan Pablo Sarmiento Barletti and Anne M Larson, 'Rights abuse allegations in the context of REDD+ readiness and implementation', CIFOR infobrief no. 190 (2017), p.4. Accessed 29 January 2021 from: http://www.cifor.org/publications/pdf files/infobrief/6630-infobrief.pdf.
- ⁴³ See McCarthy 2009 op. cit. p.510.
- ⁴⁴ Creutzig op. cit. p.29.
- ⁴⁵ IPCC op. cit. p.751.
- ⁴⁶ Mathias Risse, 'The Right to Relocation: Disappearing Island Nations and Common Ownership of the Earth'. *Ethics & International Affairs*, 23, 3 (2009): 281–300.
- ⁴⁷ See Cara Nine, 'Ecological Refugees, States Borders, and the Lockean Proviso', *Journal of Applied Philosophy*, 27, 4 (2010): 359–75, p.366.
- ⁴⁸ See e.g. Amnesty International, 'The human cost of Fortress Europe: human rights violations against migrants and refugees at Europe's borders', (2014), accessed 29 January 2021 from: https://www.amnesty.org/en/documents/EUR05/001/2014/en/.
- ⁴⁹ Creutzig op. cit. p.28.
- ⁵⁰ See e.g. Henry Shue, 'Global Environment and International Inequality', *International Affairs*, 75, 3 (1999): 531–45.
- ⁵¹ See e.g. IPCC op. cit. pp. 25, 718.
- ⁵² IPCC op. cit. §7.2.3.2.
- ⁵³ Jean-Francois Bastin et al., The Global Tree Restoration Potential', Science, 365, 6448 (2019): 76–79.
- ⁵⁴ Wits University Research News, 'Large-scale forestation of African savannas will destroy valuable ecosystems and ecotourism sites' (21 October 2019), accessed 26 January 2021 from: https://www.wits.ac.za/news/latest-news/2019/2019-10/large-scale-forestation-of-african-savannas-will-destroy-valuable-ecosystems-and-ecotourism-sites.html.
- ⁵⁵ As Morrow *et. al.* put it, "It would be patently unfair for the Global North to pass the responsibility for cleaning up carbon pollution to the Global South, which contributed much less to the problem" (David R. Morrow, Michael S. Thompson, Angela Anderson, Maya Batres, Holly J. Buck, Kate Dooley, Oliver Geden, Arunabha Ghosh, Sean Low, Augustine Njamnshi, John Noël, Olúfémi O. Táíwò, Shuchi Talati, Jennifer Wilcox, 'Principles for Thinking about Carbon Dioxide Removal in Just Climate Policy', *One Earth*, 3, 2 (2020): 150-153, p.151).
- ⁵⁶ Accessed 26 January 2021 from: https://viacampesina.org/en/our-land-is-worth-more-than-carbon-civil-society-statement-cop-22/
- ⁵⁷ See IPCC op. cit. p.718.
- ⁵⁸ Amity A Doolittle, 'The Politics of Indigeneity: Indigenous Strategies for Inclusion in Climate Change Negotiations', *Conservation and Society*, 8, 4(2010): 286-291, p.289. See also Olúfémi O. Táíwò, 'Climate Colonialism and Large-Scale Land Acquisitions', C2G blog (2019). Accessed 5 February 2021 from: https://www.c2g2.net/climate-colonialism-and-large-scale-land-acquisitions/.
- ⁵⁹ Goldman op. cit. p.35.
- ⁶⁰ Goldman op. cit. p.5.
- ⁶¹ Avery Kolers, 'Latin America in Theories of Territorial Rights', *Revista de Ciencia Política* 37, 3 (2017): 737-753, p.748.
- ⁶² Accessed 26 January 2021 from: https://amazonwatch.org/news/2000/1112-declaration-of-indigenous-peoples-on-climate-change.
- ⁶³ See Miranda Fricker, *Epistemic Injustice* (Oxford University Press, 2007), Ch.7.