



PLANET GRAB:

The Converging, Compounded Colonialisms of CONservation, Carbon Markets and Extractivism In the name of saving Nature and the climate, the scope of carbon colonialismⁱ has become mind-bogglingly vast. Now, fortress conservation combined with carbon offsets is serving as an excuse to grab half the planet. The United Nations, governments, corporations, Big Oil and so-called conservation organizations want to grab a thirdⁱⁱ to half the world's land and oceans,ⁱⁱⁱ including the majority of Indigenous Peoples' territories, peasants' land and Africa for protected areas, carbon offsets, drilling and mining. This Planet Grab for supposed conservation, carbon colonialism and extractivism could harm over 1 billion people,^{iv} result in massive land grabs, violent evictions, threats to cultural survival and render the evicted homeless, landless and starving.

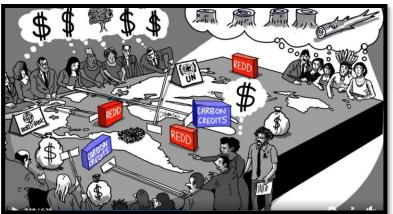
This chapter delves into some of the key drivers of the Planet Grab. It also explores how the colonialisms of carbon markets, conservation and resource extraction build on and mimic historic colonialism as well as converge, complement, compound and compete with each other.

The Umbrella

The overarching umbrella of the Planet Grab is capitalism's predatory relationship with Mother Earth. This lack of respect for the Sacred cements the profit paradigm based on the ever-increasing plunder and exploitation of land, oceans and peoples. Driven by greed and the illusion of infinite market growth, the fallout of this paradigm is unjust and unsustainable models of society, production, distribution and consumption as well as the concentration of wealth and power in the hands of a very few. Several of the resulting superbillionaires, such as Jeff Bezos, avidly fund false solutions to climate change, which fuel the Planet Grab to further entrench their dominance in both finance and governance.







arog. Eorn

Drivers of the Planet Grab

The Planet Grab has many drivers gussied up with pretty, innocuous names including: Half-Earth, the Global Deal for Nature, the Convention on Biological Diversity's 30X30 target, the United Nations Framework Convention on Climate Change's Paris Agreement, REDD+ (Reducing Emissions from Deforestation and Degradation) also called Nature-Based Solutions (NBS) or Natural Climate Solutions, Net Zero emissions, the Green New Deal, CORSIA (airline offsets), the Trillion Trees Campaign, the Green Economy and the Blue Economy. The Planet Grab is key not only to the Paris Agreement scam, but also to the UN's Agenda 2030 Sustainable Development Goals.

The multilateral fora where states, corporations, international financial institutions and others debate, design and implement the international political processes and legal framework for the Planet Grab include the United Nations negotiations on climate change, biological diversity and development as well as the World Economic Forum, the World Trade Organization and many others. In addition, the private sector, especially extractive industries, superpowers, the State of California, which is the fifth largest economy in the world, the conservation industry and non-governmental organizations also have their own initiatives to vie for a slice of the global pie in the name of saving Nature and the climate.

The following *Planet Grab for CONservation, Carbon Colonialism and Extractivism Chart* is by no means exhaustive nor definitive, but rather provides a snapshot of some key drivers of the Planet

Grab, the greenwash buzzword used to hide the grabbing, and the initial percentage of the planet, land, waters, forests or oceans they intend to grab. It is crucial to keep in mind that the principal drivers of the Planet Grab and its massive territorial expropriation of Indigenous Peoples,' local communities' and Africa's land and waters are not self-contained, but rather, like a dance of ghouls, converge, complement and compete. They also overlap, intersect, reinforce and accelerate each other as well as historic and ongoing colonialism.





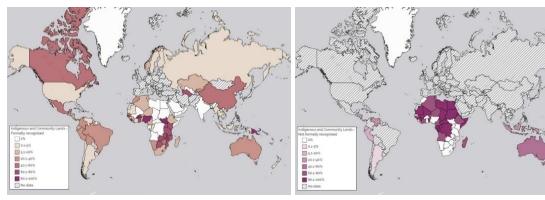
Planet Grab for CONservation, Carbon Colonialism and Extractivism

Proponent	Greenwash Buzzword	Proposed Percentage of planet, land, forests or oceans	Notes			
	CONSERVATION A	AND CARBON OFFSETS				
Nature Needs Half	Conservation	50% of planet ^{vi}	Land and oceans			
Half-Earth	Conservation Nature-Based Solutionsvii	50% of planet ^{viii}	Land and oceans			
One Earth	Conservation	50% of planet ^{ix} 80% of Amazon ^x	Land and oceans			
Global Deal for Nature	Conservation	50% of planet ^{xi} 63% of Indigenous Peoples' land and waters ^{xii}	Land and oceans			
IUCN International Union for Conservation of Nature	Protected Areas Marine Protected Areas	50% of planet ^{xiii} 80% of Amazon ^{xiv}	Land and oceans			
Convention on Biological Diversity (CBD)	Protected Areas Conservation 30X30 plan	30% of planet?xv	Land and oceans			
United States of America	America the Beautiful Initiative ^{xvi}	30% of United States ^{xvii}	Land, waters and oceans			
State of California	Executive Order N-82-20	30% of California ^{xviii}	Land, waters and oceans			
	OFFSETS, REDD AND	MASSIVE TREE PLANTING				
UN-REDD	REDD	70% of tropical forests?xix	65 countries ^{xx}			
REDD+ in UN Framework Convention on Climate Change (UNFCCC) and Paris Agreement	REDD+, offsets. Net Zero, Blue Carbon, decarbonization, Nature- Based Solutions (NBS), Internationally Traded Mitigation Outcomes (ITMOs)	30% of planet? 100% of world's forests?	Forests are 30% of planet ^{xxi} Plus offsets with other ecosystems and oceans			
REDD: World Bank Forest Carbon Partnership Facility ^{xxii}		Forests the size of Bolivia xxiii	Donors include BP ^{xxiv}			
California REDD	Tropical Forest Standard Natural Climate Solutions	30% of tropical forests ^{XXV}	38 states and provinces ^{xxvi} plus forests in California and U.S.			
Sampling of Government and Corporate REDD and Net Zero targets	Land-based carbon removals	5 times the size of India ^{xxvii} Size of world's farmland ^{xxviii}				
Shell Oil	REDD, Net Zero, offsets Nature-Based Solutions, Natural Climate Solutions	Forests the size of Brazil ^{XXIX}	Plus biodiversity offsets			
World Economic Forum	Trillion Trees Campaign ^{xxx}	2-4 times the size of the U.S. xxxi				
Russia	Offsets	Size of India ^{xxxii}	Russia's Far East forests - Taiga			
UN: International Civil Aviation Organization (ICAO): Airline Industry	Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)	Size of Ireland each year ^{xxxiii}	Plus land for tree plantations for biofuels for airplanes			
Biofuels	Agrofuels, ethanol, etc	Size of U.S. and Indiaxxxiv	Trees, grasses, crops and GMOs			
UN: Wildlife Premium Market Initiative + REDD	"Most of the remaining tropical forests and most important areas of biodiversity."					
		VATION and OFFSETS	·			
UN Global Ocean Treaty	Blue Carbon, Fish Carbon Marine Protected Areas	30% of oceans?xxxvi	Offsets with seabed, sea grasses, water, fish and whales			
International Monetary Fund (IMF)	Whale Offsets	Whales and habitatxxxvii	Based on REDD+xxxviii			



Whose land and water does the Planet Grab grab?

Indigenous Peoples and local communities have customary rights xxxix to up to "65 percent of the global land area, [but] they have ownership rights to just 10 percent." As many as "2.5 billion people depend on indigenous and community lands and community-based systems, "xlii including an estimated 370 million Indigenous Peoples. Although hindered by a lack of data, the following maps produced by the digital platform Landmark lep to begin to visualize the concentration of Indigenous Peoples' and local communities' lands by countries. Map 1 shows Formally Recognized Indigenous and Community Lands as a Percentage of Total Land Area and Map 2 shows Not Formally Recognized Indigenous and Community Lands as a Percentage of Total Land Area. In Map 2, much of the world is striped indicating not just a lack of data, but perhaps also a lack of political will to generate such data.



Map 1: Formally Recognized
Indigenous and Community Lands as a
Percentage of Total Land Area
Source: http://www.landmarkmap.org

Map 2: Not Formally Recognized Indigenous and Community Lands as a Percentage of Total Land Area

Source: http://www.landmarkmap.org

Even though Indigenous Peoples comprise only about 5% of the world's population, xiv it is in Indigenous Peoples' territories, encompassing about 28% of the planet's terrestrial surface, xivi where 80% of the biodiversity xivii of the world and the greatest concentration of non-human life is

Global map of lands managed and/or controlled by Indigenous Peoples.

Source: Garnett et al. (2018)

found. Not only are Indigenous Peoples' territories



Source: ANAFAE

the home of the vast majority of biodiversity, but they are also home to the greatest concentration of cultural diversity, linguistic diversity and traditional knowledge systems intrinsic to the environmental and holistic health of the world.xlviii As many as 5,000 different indigenous culturesxlix and more than 4,000 indigenous



languages, embedded with unique environmental expertise, are practiced and kept alive in Indigenous Peoples' territories. It should come as no surprise, then, that Indigenous Peoples' territories and local communities' land, forests, waters and oceans as well as the whole of Africa are the most coveted and of highest priority for the Planet Grab.

Who wants to grab the planet?

The idea of grabbing half the planet for the Green Economy in order to privatize Nature and monetize "ecosystem services" including carbon sequestration, under the guise of saving Nature and the climate, has been kicking around for over a decade. Its conceptual framework harks back to colonialism's *Terra Nullius* (the idea that Native land is empty and belongs to no one). Patriarchal imaginary of Nature as a mystical virgin for white men to fear, conquer, rape, pillage, enslave and prostitute, while simultaneously pretending to civilize, protect and save, i also comes into play, as do other hegemonic fallacies.

Chopping the World in Half

There are several influential organizations including Nature Needs Half, Half-Earth Project, One Earth, All and RESOLVE (which works with mining companies) that have been lobbying quite successfully for monopolizing half the world for a global, interconnected "conservation reserve" and carbon sink. These organizations significantly impact UN negotiations and legal frameworks on climate, biodiversity, trade, finance and even the aviation sector towards this end. For example, Nature Needs Half was launched in 2009 and brags that it "has successfully placed the protection of 50% of nature at the forefront of priorities in the conservation sector and within inter-governmental institutions, including parts of the United Nations."

Half-Earth

There are a variety of brands and buzzwords for the Planet Grab. For example, the late American biologist E.O. Wilson came up with the Half-Earth concept. In 2016, Wilson's book *Half-Earth: Our*



Half-Earth Planet Grab? Source: Doug Chayka

planet's fight for life^{lviii} proposed that the "global solution to extinction" is to turn half the planet into a human-free nature zone. The scale of the plan is staggering. Protected areas currently incorporate about 15.4% of the Earth's land and 3.4% of its oceans. Half-Earth would require 3 times that amount of land and 10 times that area of oceans, will and include "about 85%" for the remaining biodiversity. Wilson neglected to specify how to grab half the planet, which humans to eject from half the Earth and how, the consequences for those evicted, and who would rule the usurped half of the planet. Value frankly, Half-Earth reeks of empire.



Geographer Brian Napoletano of the National Autonomous University of Mexico points out in his article entitled "Half-Earth: A biodiversity 'solution' that solves nothing" that "proposals to remove all humans from half of the Earth ignore the root causes of the biodiversity crisis and undermine progressive struggles for social justice." Furthermore, one might well wonder if the proposed cramming of the world's population onto half the planet might require a companion proposal to halve the world's population.

Half the World for Conservation Combined with Carbon Trading

The Half-Earth Project calls for carbon trading in the form of Nature-Based Solutions, a new name for carbon offsets with Nature. It is noteworthy that the Half-Earth Council includes U.S. economist Jeffrey Sachs, who advocates for achieving the Agenda 2030's Sustainable Development Goals with "decarbonization," which is based on carbon trading and other false solutions to climate change like nuclear power. | Ixviii

One Earth

Another organization keen on halving the world, as its logo – a circle severed in half - vividly illustrates, is One Earth. According to Justin Winters, its Co-Founder and Executive Director, One Earth's vision includes using "50% of the world's lands and oceans" and "a transition to regenerative, carbon-negative agriculture," which is code for putting farming and food into the carbon market. Critics of carbon farming, such as the Institute for Agriculture and Trade Policy and the National Family Farm Coalition, denounce that agriculture-based "carbon markets are inherently inequitable, lock out most farmers, and could lead to more pollution, particularly in disadvantaged communities."

However, One Earth wants to use more than agriculture for carbon trading. In an attempt to both steal as well as sidestep the thunder of the global opposition to carbon trading and offsets, One Earth pretends to validate the opposition's concerns and, then, in the same commodified breath, employs jaw-droppingly cynical rebranding to turn carbon offsets into carbon "onsets." Making false distinctions between carbon onsets and carbon offsets, One Earth writes that "nature-based carbon removal is better suited for market mechanisms. Julio Friedmann at Columbia University calls these 'onsets' in contrast to offsets. In carbon onset projects, degraded land is restored, resulting in additional sequestration of carbon from the atmosphere." Both carbon offsets and carbon onsets commodify Nature and are designed to enable ongoing emissions by selling permits to pollute on carbon markets. The only difference is the "off" or "on" preposition. Call them what you will, carbon offsets, carbon onsets and even carbon "insets" laxvii are false solutions to the climate crisis.

Not to be outdone by Half Earth, in 2019, "a core leader in the Nature Needs Half movement" and contributor to One Earth, lxxix Eric Dinerstein and his team proposed a "Global Deal for Nature



- a companion to the Paris Climate Deal"lxxx to protect "at least half the Earth" and oceans and "secure essential ecosystem services," which include carbon trading and privatization of Life. Note that from the get-go the Global Deal for Nature's intention is to span "at least half" maybe more - of the globe. It is also extremely relevant that the Global Deal for Nature and the Paris Climate Agreement are conceived of as two parts of a whole, as a "union," which indicates that the Planet Grab for conservation and global carbon offsets are one and the same and two sides of the same grab-and-commodify-Nature, carbon trading coin.

Not only is the Global Deal for Nature paired with the Paris Agreement, but it is also a key reference for the emerging UN Convention on Biological Diversity's post-2020 Global Biodiversity Framework and its 30X30 target. The 30X30 target is a plan to use 30% of the world's lands and oceans for protected areas by 2030. There is significant pressure to codify the goal of designating a third of the planet for conservation and carbon offsets in international law in the form of a legally-binding global biodiversity treaty as soon as possible. IXXXVIII

Jump starting implementation of the 30X30 agenda, in October of 2020, Governor Gavin Newsom of the State of California issued a sweeping executive order to implement the 30X30 plan statewide whereby "California became the first state in the nation to pledge to conserve 30 percent of land and coastal water by 2030." Executive Order N-82-20 Executive "directs state agencies to deploy a number of strategies to store carbon in the state's natural and working lands and remove it from the atmosphere [i.e. put a third of the state in the carbon market.] The order also sets a first-in-the-nation goal to conserve 30 percent of the state's land and coastal water by 2030 to fight species loss and ecosystem destruction" [i.e., use a third of the state for biodiversity offsets and conservation]. Newsom has also proposed funding for Indigenous Peoples to buy back their territories so they can be part of the 303X30 plan.*c

No to be upstaged by California, on January 27, 2021, U.S. President Joe Biden signed the "Executive Order on Tackling the Climate Crisis at Home and Abroad," whose goal is to conserve "at least 30 percent of our lands and waters by 2030." The Executive Order makes clear that the strategy, far from "conserving" Nature, plans to use Nature for carbon trading, which allows forest-killing emissions to increase. In Section 102, the Executive Order calls for the development of a plan for promoting the protection of the Amazon rainforest and other critical ecosystems that serve as global carbon sinks, including through market-based mechanisms aka carbon markets. The United States' intention to put forests and Nature in the carbon market was also trumpeted on Earth Day 2022, when Biden issued an Executive Order to supposedly "Strengthen America's Forests, Boost Wildfire Resilience, and Combat Global Deforestation." According to Global Justice Ecology Project, instead of delivering on its title, the order promotes

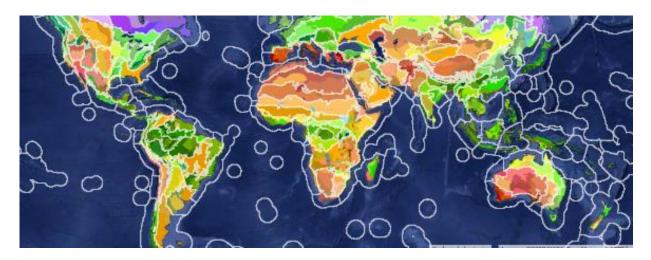


carbon offsets and other programs and policies "in the service of timber, oil and gas, mining, biotechnology and other industries," which make climate change worse. xcvi

And so, with a few strokes of a few pens, the polluting Planet Grab for carbon colonialism gathers momentum. However, taking over 30% of the United States and the world for protected areas and the carbon market by 2030 may be just a "stepping stone" to monopolizing 50% of the United States**cviii and half the world for protected area and the carbon market by 2050.**Cix The 30x30 target may be just the hors-d'oeuvres for the 50X50 target.

Which parts of the planet might be used for the 50X50 Planet Grab?

Even though 2050 is farther down the road, great strides have been made to identify which parts of Mother Earth are the choicest morsels for the 50X50 target. For example, Dinerstein *et al* not only produced the Global Deal for Nature, but also came up with a "blueprint" ^c for its implementation, which is called the Global Safety Net. ^{ci} The Global Safety Net (GSN) is a handy map app^{cii} https://www.globalsafetynet.app/ and prides itself on being "the first comprehensive global-scale analysis" of "50.4% of the Earth's land." ^{civ} Funded by One Earth, ^{cv} the GSN team was led by RESOLVE and includes the University of Minnesota, Arizona State University, the NGO Globaïa, Google Earth Engine and the data visualization company Graphicacy." ^{cvi}

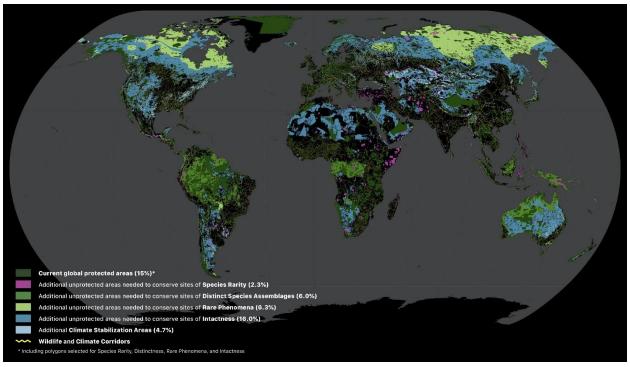


Source: Global Safety Net https://www.globalsafetynet.app/

The following map posted by One Earth identifies "Areas of the terrestrial realm where increased conservation action is needed to protect biodiversity and store carbon." cvii



"Areas of the terrestrial realm where increased conservation action is needed to protect biodiversity and store carbon."



"Numbers in parentheses show the percentage of total land area of Earth contributed by each set of layers. Unprotected habitats drawn from the 11 biodiversity data layers underpinning the Global Safety Net augment the current 15.1% protected with an additional 30.6% required to safeguard biodiversity. Additional CSAs add a further 4.7% of the terrestrial realm. Also shown are the wildlife and climate corridors to connect intact habitats (vellow lines)."

Source: One Earth. https://www.oneearth.org/motion-101-passes-at-iucn-calls-for-protecting-50-of-earths-lands-and-seas/

A Matrix for the Planet Grab

Here, then, is a matrix for identifying which parts of the world are slated to make up the half of the planet reserved for conservation and carbon offsets, prepared by a team led by RESOLVE. RESOLVE partners with mining giant Rio Tinto^{cviii} and specializes in the likes of mining "Green Lead," "Salmon Gold," "biodiversity-positive gold" as well as diamonds, "minerals and gems from conflict areas like the Democratic Republic of Congo. Given the significant percentage of protected areas with active extractive industry operations, surely, the leadership of a collaborator with the mining industry in the creation of this "conservation" blueprint is no mere coincidence.





End CO2lonialism: 2014 Peoples' Climate March.

Photo: Joe Brusky /Light Brigading

63% of Indigenous Peoples' territories for the Global Deal for Nature

One Earth, the Global Deal for Nature^{cxii} and their Global Safety Net^{cxiii} map, which advocates for using half the Earth for conservation and carbon offsets, are frank about the vast overlap between the half of the Earth they want for the carbon trading-conservation hybrid and Indigenous Peoples' territories. "Indigenous lands overlap extensively with the Global Safety Net."cxiv So just how much of Indigenous Peoples' territories may be "overlapped?"

The following chart of the Global Deal for Nature's Global Safety Net lists mapped Indigenous Peoples' lands as 37,900,308 square kilometers or 28% of Mother Earth's total land surface. (Marked in yellow.) The chart also shows that current global terrestrial protected areas overlap with 40% of mapped Indigenous Peoples' lands. (Marked in purple.) These calculations may be a conservative estimate since the mapping of Indigenous Peoples' lands often does not include the full extent of Indigenous Peoples' ancestral territories, nor the lands of Indigenous Peoples not recognized by states.

In addition, the chart shows that 23,903,887 square kilometers from Indigenous Peoples' territories will make up 35% of the lands proposed by the Global Deal for Nature for new protected areas and carbon offsets. (Marked in blue.)

What the chart does not show is that these 23,903,887 square kilometers of Indigenous Peoples' lands (circled in red) amount to over 63% of the total 37,900,308 square kilometers of mapped Indigenous lands, (circled in green) which means that over 3/5 of Indigenous Peoples' lands is being proposed for the Global Deal for Nature. Sixty-three percent of Indigenous Peoples' lands may be put under a new, yet-to-be-defined form of global governance, which may very well violate Indigenous Peoples' rights, prohibit Indigenous Peoples' ways of life, culture, livelihood, spirituality and threaten their food sources, cxv cultural survival and flourishing future, as many protected areas^{cxvi} and carbon offset projects^{cxvii} have historically done and currently do.



Indigenous Peoples' Lands:

Total land surface, overlap with protected areas and additional land proposed for the Global Deal for Nature

Dataset name —	Area	Total land surface	Est. total carbon (24)	Overlap with mapped indigenous lands (26)		Total of mapped
	(km²)	(%)	(megaton)	(km²)	(%)	Indigenous
Total land surface*	134,126,000	100.00	2,923,028	37,900,308	28	Peoples' lands:
Global terrestrial protected areas	20,210,878	15.07	484,929	8,032,078	40	37,900,308 km ²
Unique contribution of curren	tly unprotected lands	t				28% of world's land
Target 1. Conserving the dive	rsity and abundance o	f life on Earth (terrestrial)		_		
Cluster 1: Species rarity [‡]	3,047,787	2.27	75,638	526,739	17	
Cluster 2: Distinct species assemblages	8,072,308	6.02	239,978	3,235,858	40	
Cluster 3: Rare phenomena	8,414,171	6.27	442,625	4,092,873	49	
Cluster 4: Intactness	21,515,364	16.04	602,157	7,157,106	33	
Subtotal	41,049,630	30.61	1,360,399	15,042,327	37	
Target 2. Enhancing carbon d	rawdown and storage					63 %
Tier 1 climate stabilization areas ⁵	2,337,236	1.74	82,878	309,899	13	
Tier 2 climate stabilization areas	3,946,581	2.94	48,122	549,335	14	of Indigenous Peoples' lands for
Subtotal	6,283,826	4.69	131,000	859,234	14	·
Total area to achieve targets 1 and 2	47,333,457	35.29	1,420,499	15,871,809	34	Global Deal for Nature 23,903,887 km ²
Total area for greater conservation attention within the Global Safety Net (including current protected areas (14))	67,544,335	50.36	1,905,428	23,903,887	35	
Target 3. Wildlife and climate	corridors: A scoping e	xercise ¹				
Area required if targets 1 and 2 achieved	3,584,614	•		-		
Area required if targets 1 and 2 are not achieved (existing protected areas only)	5,705,206					-

Source: A "Global Safety Net" to reverse biodiversity loss and stabilize Earth's climate https://www.science.org/doi/10.1126/sciadv.abb2824



CONTINENT GRAB: REDD-ification of Africa

Indigenous Peoples' territories and local communities' land and waters are ground zero for carbon colonialism's Planet Grab, but so is all of Africa. According to the Durban Declaration, "All forms of REDD amount to two things: licensing polluters to keep polluting, and grabbing lands and other resources from forest and peasant communities. REDD+ started as a land grab, in Africa it is becoming a continent grab and, if not checked, it will turn into a planet grab." Even the World Bank recognizes that "90% of Africa's rural land is undocumented... making it highly vulnerable to land grabbing and expropriation." According to the No REDD in Africa Network's seminal Stopping the Continent Grab and the REDD-ification of Africa: CXX



No REDD in Africa



No REDD in Africa

"In Africa, REDD+, carbon credits, agrofuels and export crops are driving massive land grabs.cxxi Experts are warning that three-quarters of Africa's population and two-thirds of its land are at riskcxxii and that REDD+ may create 'generations of landless people.cxxiii REDD+ is emerging as a new form of colonialism,cxxiv economic subjugation,cxxv impoverishmentcxxvi and a driver of land grabscxxvii so massive that they may constitute a Continent Grab.cxxviii Carbon trading companies have applied for rights over one-third of Mozambique to sell REDD credits.cxxix More than 40% of Cameroon's forests - almost 20% of the country - may be slated for REDD-type projectscxxx and 20% of Liberia's forests were almost grabbed for a billionaire carbon scam.cxxxi According to Reuters, an Australian

carbon trading company claimed to have signed a contract to do REDD in all of the 2,345,000 square kilometers of the entire national territory of Democratic Republic of Congo, which was subsequently declared illegal. It is important to recall that REDD+ now includes not just forests but plantations, soils, agriculture and even water ecosystems. Therefore, past land grabs for plantations, agrofuels and export crops could soon become REDD projects as well. XXXIII

tracts of Africa are being labeled 'unused,'cxxxv' 'degraded,'cxxxvi marginal or in need of 'conservation,'cxxxvii afforestation or 'reforestation,'cxxxviii to justify the advent of carbon colonialism."cxxxix





Experts: "Half-Earth framework could directly affect over a billion people" cxl

Half-Earth has become an umbrella term for a variety of the above-mentioned proposals including Nature Needs Half and 50x50. Given that much of Africa and up to 63% of Indigenous Peoples' territories could be used for Half-Earth, it follows that even conservative calculations^{cxli} indicate that the Half-Earth framework could adversely affect "over one billion people"^{cxlii} who live on or near the coveted land. In 2019, University of Cambridge's Judith Schleicher *et al* published a landmark study entitled "Protecting half of the planet could directly affect over one billion people."^{cxliii} The study reports that "the number of people affected would probably be higher in an approach based on ecological criteria, especially in poorer countries that tend to have higher concentrations of biodiversity,"^{cxliv} like much of sub-Sahara Africa.

According to the study, under the Half-Earth framework, the number of people living in protected areas would increase fourfold.^{cxlv} However, whether those people would be allowed to stay or

would be displaced is not clear. Existing protected areas are often human-exclusion zones, in accordance with the dominant worldview that humans and Nature must be separated and that, therefore, a protected area cannot include people. Massive displacement for the establishment of protected areas is not without precedent since tens of millions of people^{cxlvi} have already been evicted for protected areas. Given the magnitude of the area in question, there are no guarantees that multitudinous displacements would not happen again with Half Earth.



Source: Polyp.org.uk

In addition to considering whether Half Earth might result in the biggest territorial expropriation and eviction of all time, one must consider the adverse environmental impacts of protected areas since, despite their name, they do not necessarily protect the environment. "We've certainly noticed in the past [that] just increasing area-based conservation doesn't reach conservation objectives and it can really alienate people,"cxlvii warned Judith Schleicher, the lead author of the above-cited study. This is a diplomatic way of saying that using half the Earth for so-called conservation will not save biodiversity, protect life on Earth, nor stem the "sixth mass extinction"cxlviii though it may evict over a billion people or about 1/8 of the world's population.cxlix

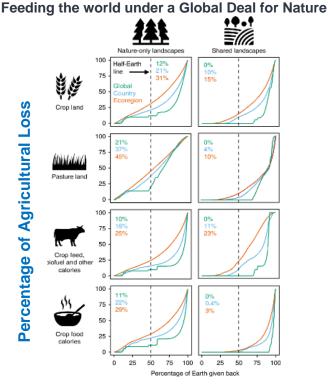
The study also notes that the Half-Earth framework could result in "radical changes in land and sea use across the planet." Although the experts do not elaborate, given conservation and carbon offset projects' track records of restricting or banning agriculture, hunting, fishing,



foraging, the gathering of water and/or other food-related endeavors including ceremonies, "radical changes" may very well also include such limitations or outright bans of these practices on that half of the Earth.

Half-Earth and Hunger

The concerns about restrictions or bans on living off the land are confirmed by experts Zia Mehrabi, Erle. C. Ellis and Navin Ramankutty in "The challenge of feeding the world while conserving half the planet." clii According to the following Feeding the world under a Global Deal for Nature Chart, "depending on the landscape conservation strategy, we find that, globally, 15–31% of cropland, 10–45% of pasture land, 23–25% of non-food calories and 3–29% of food calories from crops could be lost if half of Earth's terrestrial ecoregions were given back to nature." That is, the Half-Earth framework could reduce cropland up to a third, pasture to up to almost half, and food calories by a fourth. Reducing the land available for growing food by a third is historically unprecedented and could significantly undermine food security and sovereignty, as well as cause hunger, if not prolonged famine. For example, the researchers report that, even based on conservative estimates, the Half-Earth framework could result in a substantial decrease in the quantities of food eaten in parts of Africa, China and India. cliv



"The chart shows the impact on agricultural loss and food production of two scenarios: 1. "Nature only landscapes", in which conservation displaces all crop production in regional landscape; and 2. "Shared landscapes", in which conservation, crop production and mining are allowed to coexist within each landscape. Both scenarios show dramatic loss of agricultural land and food production. Results are color coded by the global (green), country (blue) and ecoregion (red) level. The Half-Earth scenario is indicated by a vertical dotted line." *Source:* Zia Mehrabi *et al.*



Conflict and Violence

In "Half-Earth or Whole Earth? Radical ideas for conservation, and their implications," clv Wageningen University sociologist Bram Büscher and his team call out additional negative impacts of the Half-Earth framework. Apart from "serious negative impacts both on people (particularly poor people) and probably also on biodiversity," the Half-Earth framework "ignores the powerful engines of resource extraction and consumption that are the main drivers of biodiversity loss globally... especially fossil fuel use." Noting the "myriad social conflicts" caused by many protected areas, Büscher et al predict that "the Nature Needs Half proposal is therefore likely to fuel even more conflict and violence." Since "it is ultimately economic growth itself that is the root cause of biodiversity loss," Büscher et al call for "degrowth economics" and "dramatically redistributing existing wealth." "[C]utting inequality in half," they argue, "would do more for conservation than attempting to protect half of the Earth from humanity."

A Green Iron Curtain and a Recipe for a Dystopian World

Nonetheless, one of the lead proponents of the Half-Earth framework, E.O. Wilson, recommended that humans be restricted to only experiencing Nature virtually, via hidden microcameras. Clvi Büscher *et al* ask "will only the managers of nature's half be allowed behind the curtain? This, we fear, would be a recipe for a dystopian world, where the vast majority of humanity is prevented from experiencing the very biodiversity many of them will have been displaced to save... The Half-Earth proposal, in short, is infeasible, and will have dangerous and counter-effective consequences." Clvii

"A Global Land Rush"

If that were not grim enough, in an important study entitled "Half Earth: promises, pitfalls, and prospects of dedicating Half of Earth's land to conservation," experts Erle C. Ellis and Zia Mehrabi foresee that the Half-Earth framework could not only worsen land tenure insecurity, clix increase land prices, and "further impoverish or displace rural peoples," but that "land acquisition at Half-Earth scale could precipitate a global land rush." clxii

Half-Earth: "Largest relocation" and "monopolization of land ownership and governance?"

According to these experts, "Half Earth is the largest land relocation and governance proposal in history,"clxiii which may result in the "monopolization of land ownership and governance."clxiv Historically, land monopolies by wealthy families or corporations have condemned millions to landless misery. Monopolized governance or a monopoly on political power is a telltale feature of dictatorship.clxv In Central America, the last century abounds with examples in both regards.clxvi Since ancient times, tyrants of all stripes have tried to rule the world and failed. Could it be that, now, in the name of saving Nature and the climate, we are on the verge of a Global Dictatorship for Nature?



30X30 plan is the "biggest land grab in history"

The profound concern about the ramifications for global land tenure and governance of the Half-Earth framework and 30X30 is by no means limited to academics. According to Survival International, an NGO headquartered in the UK, the 30X30 plan is the "battle for one-third of the globe's surface" clxviii and "the biggest land grab in history." clxviii In their appeal to stop the 30X30 plan, Survival International explains that far from mitigating climate change, reducing wildlife loss and enhancing biodiversity, turning 30% of Earth into protected areas will "destroy nature." clxix

Stephen Corry, former CEO of Survival International, reminds us that the roots of the 30X30 plan and conservation are colonialism and white supremacy. Clxx Part of the continuum of colonialism and genocide of the last five centuries, protected areas are "born out of brutality." Clxxi



Source: Survival International

In "How Conservation Became Colonialism," Foreign Affairs explains that the Latin word foresta in Charlemagne's Europe referred to the monopolization of land for royal hunts, which met with bloody revolts and inspired the legend of Robin Hood. Claric Centuries later, John Muir and Teddy Roosevelt gave this idea of monopolization of land and forests an American twist. Claric The world's first protected area claric was Yellowstone National Park created in 1872 on territories Indigenous Peoples had continuously inhabited for over 10,000 years. Claric In "Return the National Parks to the Tribes," Ojibwe scholar David Treuer writes, "When Yellowstone was established, the Plains Wars were raging all around the park's borders. It was as though the government paused midmurder to plant a tree in the victims' backyard. Claric The U.S. Army was also waging a scorchedearth campaign to starve Indigenous Nations into submission by slaughtering the buffalo and encouraging hunters to "Kill every buffalo you can! Every buffalo dead is an Indian gone. Claric Yellowstone National Park forcibly displaced the Shoshone, Bannock and other Indigenous Peoples Claric Indigenous Peoples was militarized by the U.S. Army for 32 years. Claric Similarly, in 1890, shortly after waging "a war of extermination," Claric and 39 years after massacring the Miwuk Nation, Claric the



U.S. Army in Yellowstone



U.S. government founded Yosemite National Park, and the anti-human, fortress conservation template^{clxxxiii} and "wilderness myth"^{clxxxiii} were forged.

But the genocidal violence did not stop. The Ahwahneechees were "hunted" and expelled from Yosemite Valley, and, as recently as 1969, the Park Service was still removing Native persons from their homes in Yosemite. Clxxxiv In a crucial call to "restore the land bases of those Tribes who are displaced from protected areas," Native leaders, basket makers and artists Rebecca Tortes, Jennifer Malone, Leah Mata Fragua, Hillary Renick, A-Dae Briones and Fred Briones published "We are still here. John Muir is not." In this urgent demand for territorial restitution, Bill Leonard, Tribal Chairman of the Southern Sierra Miwuk, is quoted responding to the denial of federal recognition of the Tribe in 2019, despite the fact they are recognized as one of seven Tribes that call the Yosemite Valley home: "they're still killing us. In that way, the genocide has not stopped... The genocide isn't over as long as they're denying tribes their rights." Clxxxxvi

The CON in Conservation

Colonialist, monopolistic, militarized, genocidal conservation is not a thing of the past. The terrible violence used in the establishment of the first protected areas in the 1800s continues to be a feature of creating protected areas today. According to *The Guardian*, "Most of the world's 6,000 national parks and 100,000 protected places have been created by



FiSopa Images

the removal of tribal peoples."clxxxvii Reviewing the contemporary impacts of the conservation industry and protected areas sheds light on what implementation of the Half-Earth framework and the Convention on Biological Diversity's Agenda 30X30 might eventually look like on the ground.

Protected Areas – Comparable to War

In *Conservation and Displacement: An Overview,* Arun Agrawal and Kent Redford write that the magnitude of brutal armed violence, evictions and human suffering caused by conservation in the form of protected areas and national parks, especially for Indigenous Peoples and local communities, has been comparable to those of "war,"clxxxviii and that "tens of millions of people"clxxxix have been displaced. In "The Tribes Paying the Brutal Price of Conservation,"cxc journalist John Vidal writes about the displacement of the Gana and Gwi San from their ancestral territory for a protected area in Botswana, the Kalahari Central Game Reserve, that certainly sounds like war:



The Botswana police helicopter spotted Tshodanyestso Sesana and his friends in the afternoon. The nine young Bushmen, or San, had been hunting antelope to feed their families, when the chopper flew towards them. There was a burst of gunfire from the air and the young men dropped their meat and skins and fled. Largely through luck, no one was hit, but within minutes armed troops arrived in a jeep and the nine were arrested, stripped naked, beaten and then detained for several days for poaching in a nature reserve... Sending a helicopter gunship and armed guards to arraign the hunters looks rather like an escalation of the low-grade war that Botswana has waged for years on one of the most vulnerable indigenous groups in the world. CXCI

Meanwhile, in 2014, one of the largest diamond mines in the world - the \$4.9 billion Ghaghoo mine^{cxcii} - opened in the park. Wealthy big game hunters from abroad flock to the fancy game

lodges, get drunk in the bars and dog paddle in the pools, while the San have no access to water, are relocated, "persecuted and tortured," and their children arrested. This stark example shows that not only are militarization and "low-grade war" still prominent features of some protected areas, but so, too, are white safari tourists killing endangered animals and highly profitable, "unethical" and destructive extractivism.



San woman Source: SI.

Of course, Botswana is by no means the only country in Africa where Indigenous Peoples are being displaced for protected areas. According to the expert on the social impacts of conservation, Michael Schmidt-Soltau, "Conservation-induced economic and physical displacement cannot be treated as a minor issue since it affects the lives and livelihoods of as many as 17 million people in the Democratic Republic of Congo — nearly 25% of the total population."cxcvii Just how massive and violent displacement can be is exemplified by the history of the Virunga National Park in the eastern part of the country.

From 2003, the estimated 180,000 people inside the [Virunga National Park] became the focus of a voluntary resettlement programme (known as 'glissement volontaire') organized by the Institut Congolais pour la Conservation de la Nature (ICCN) and WWF [World Wildlife Fund]. In 2004, more than 35,000 people were 'resettled' from an area south-east of Lake Edward. Officials admitted that this resettlement was carried out at gun-point, that no resettlement assistance was provided and that the livelihoods of the affected people have not been rehabilitated. While the resettlement programme claimed to be voluntary and based on prior and informed consultations, my discussions with the people in and near the park conducted in 2006 and 2007 documented the contrary; the people did not want to leave the park and they tried to resist, even at gun-point. CXCVIII

Indigenous Peoples continue to be violently evicted from their ancestral territories in protected areas in the Democratic Republic of Congo. The Minority Rights Group International report, *To Purge a Forest by Force: Organized Violence against* Batwa in *Kahuzi-Biega National Park*, ^{cxcix}



written by journalist Robert Flummerfelt documents abuses underwritten by the German and U.S. governments and the New York-headquartered conservation organization, Wildlife Conservation Society (WCS). Abuses, which Batwa suffered from 2019 to 2021, include massive displacement, villages being burnt to the ground, gang rape, torture and killings committed by park rangers and soldiers "that likely rise to the level of crimes against humanity."^{cc}

Other Indigenous Peoples who have suffered forced displacement and abuses because of protected areas include: the Maasai in Tanzania near Serengeti, Maasai Mara and Ngorongoro national parks, who are being forcibly displaced and whose homes have been burned for trophy hunting; the Baiga in India, who are being forcibly displaced from the Kanha tiger reserve; the Baka and Bagyeli who are being displaced from their forests or whose access is severely restricted; the Hmong and Karen of Northern Thailand, who have been displaced for national parks and protected areas; the Barman of Northeast India, who have been evicted for protected reserves; and the Wanniyala-Aetto of Sri Lanka, who were evicted for the Maduru Oya national park.^{cci}

Restriction of Access is Displacement

It is important to note that displacement is not limited to physical removal. Recent research has shown that for Indigenous Peoples and local communities, restriction of access to resources in protected areas constitutes a form of displacement as well. Continue to former-World Bank anthropologist, Michael M. Cernea, so-called "restriction of access" is displacement... Restricted access to certain resources in protected areas is a form of involuntary population displacement even when it is not accompanied by physical (geographic) removal. The initial, often armed, violence of forced displacement tends to continue with the armed violence of shoot-on sight laws for "poachers"—often Indigenous Peoples trying to feed their families in their ancestral homeland. Coliv

When CONservation does not conserve

According to The Guardian, "the irony is that "anti-people" conservation doesn't appear to be having a beneficial effect on wildlife and may in fact be self-defeating."ccv All too often not only are protected areas harming people, but they do not stem biodiversity loss - CONservation does not conserve. In East Africa, for instance, "the expansion of national parks, game reserves and protected habitats - freed from human presence - has generally been accompanied by a decline of wildlife."ccvi Similarly, a Rainforest Foundation-UK briefing entitled: "Protected Areas in the Congo Basin: Failing People and Diversity?"ccvii found that not only was forced displacement of local and indigenous communities and grave human rights violations reported in 25 of 34 protected areas surveyed, but so, too, were "drastic declines in gorilla and elephant populations" conservation.ccviii despite substantial their funding allocated for The dire situations of the communities, gorillas and elephants probably was not ameliorated by the "overlapping or neighboring logging and mining." ccix However, this is not a glaring exception.



Extractive industries are not unusual in so-called protected areas, they are the norm. So, who and what are these areas actually protecting?

Truth as a casualty of the war on Indigenous Peoples

Given that protected areas have been comparable to war in their impact on Indigenous Peoples and local communities, it might be fitting to remember Aeschylus' ancient adage: "In war, truth is the first casualty." The scope and intensity of protected areas' war on Indigenous Peoples is on the verge of not only ramping up, but going into overdrive with the 30X30 plan, Half-Earth framework and carbon colonialism. The Planet Grab is being planned and justified supposedly and sanctimoniously, with much wringing of hands, in the name of saving Nature and the climate. But like most wars, the justification is far from the truth. Furthermore, behind the official premise of war often lurks extractive industries' agendas and avarice. The war on Indigenous Peoples and local communities to create protected areas may be no exception to this ploy.

IUCN and extractive industries

The International Union for the Conservation of Nature (IUCN) is the most important international body of governments and NGOs promoting protected areas. Although its name suggests its focus is on the conservation of Nature, IUCN, like WWF, which it helped found, ccx

works closely with extractive industries. "IUCN recognizes that extractive industries – such as oil and gas, mining and building materials – can be significant contributors to the global economy, and this makes them an influential force in shaping how global conservation and development goals are attained." Just how "influential" a force extractive industries are in the CONservation industry is epitomized by IUCN's partnerships with Shell^{ccxii} and Black Mountain Mining^{ccxiii} as well as IUCN's other collaborations with the mining sector including infamous mining giant Rio Tinto, CCXIV Newmont, CCXIV Anglo American and the International Council on Metals and Mining.

In fact, IUCN published a joint report with Rio Tinto entitled *Exploring ecosystem valuation to move towards net positive impacts on biodiversity in the mining sector*, ccxviii which pretends that mining can be good for the environment.



Source: IUCN:
Back cover of Exploring ecosystem
valuation to move towards net positive
impact on biodiversity
in the mining sector.

The CONservation Industry - Greenwashing Polluters and the War on Indigenous Peoples

Profiteering on the forced displacement of Indigenous Peoples and greenwash is big business for the CONservation industry. According to Mark Dowie, author of *Conservation Refugees*, the "list of culture-wrecking institutions put forth by tribal leaders on almost every continent includes... Conservation International (CI), The Nature Conservancy (TNC), the World Wildlife Fund (WWF), and the Wildlife Conservation Society (WCS)."ccxix



Take, for example, the World Wildlife Fund (WWF). In the searing exposé, *Pandaleaks*, ^{ccxx} esteemed journalist Wilfried Huismann documents how WWF "greenwashes the ecological crimes of corporations currently destroying the last remaining rainforests and natural habitats on earth... accepts their money...[and] does more to harm nature than to protect it." ^{ccxxi} The skeletons in WWF's closet include: "a private military commando unit deployed in Africa against big game poachers – and against black African liberation movements. In the name of environmental protection, WWF has participated in the displacement and cultural extinction of indigenous peoples the world over." ^{cccxxii} *Pandaleaks* also claims that WWF has received millions of dollars



Bustart

from oil and gas companies such as Shell and BP, as well as Coca-Cola, Monsanto, HSBC, Cargill, Alcoa and Marine Harvest. Similarly, Conservation International provides greenwash for a list that reads like the *Who's Who* of corporate polluters, GMOs promoters and water privatizers. Conservation International's corporate partners include Alcoa, Barrick Gold, BHP, BP Foundation, Cargill, Chevron, Coca-Cola, De Beers Group (now owned by Anglo American^{ccxxiv}), Goldman Sachs, Kimberly-Clark, Kraft Foods, McDonald's, Monsanto, Newmont [mining], Northrop Grumman Corporation (one of the world's largest weapons manufacturers^{ccxxv}), and Rio Tinto. CCXXVII Given the coziness of the CONservation industry with extractive industries, it is not surprising that many protected areas are rife with extractivism.

Protected Areas Unprotected from Extractivism

What follows is a sampling of extractivism in protected areas. We begin with some telling examples of oil and gas extraction in areas of supposed conservation. Shell, for example, operates Liquid Natural Gas terminal infrastructure, oil platforms, pipelines, and wells in 40 IUCN Category I-IV protected areas, which include critical habitat for critically endangered or endangered species, ccxxviii in seven countries. ccxxviii Six UK oil and gas companies have license blocks overlapping 29 different protected areas in eight different countries of sub-Saharan Africa, which include Indigenous Peoples' land and endangered wildlife. ccxxix Also in sub-Saharan Africa, in 2011, 27% of the region's World Heritage sites had oil and gas concessions within them. ccxxx In Latin America, oil and gas concessions overlap more than 17% of the Peruvian Amazon protected area system, ccxxxi and, in the southern Ecuadorian Amazon, a third of protected areas are oil blocks. ccxxxiii

In the United States in 2017, 12 of the 42 national parks had a total of 534 active oil and gas wells. CCXXXIII The Lake Meredith National Recreational Area alone had 174 wells operated by 17 different companies. CCXXXIV There are also thirty additional national parks, which, although they do



not have active oil and gas wells right now, could be drilled in the future because extractive companies have the subsurface rights under a form of joint land tenure called "spilt estate." ccxxxv

Just how unprotected protected areas are is apparent when one considers that all public lands in the United States, including national parks and wildlife refuges, are potentially open to oil and gas leasing, unless they are designated as "Wilderness." Similarly, "oil extraction is legally permitted inside protected areas in Uganda, like many other African countries." CCXXXVIII

Specific examples of oil and gas activity in protected areas include:



Endangered Rothschild's giraffe and oil drilling rig in Murchison Falls National Park Source: Unearthed

- Murchison Falls National Park, Uganda
- Virunga National Park, Democratic Republic of Congo
- Sarstoon Temash National Park, Belize
- Yasuní National Park, Ecuador
- Niger Delta Mangroves site, Nigeria
- Arabian Oryx Sanctuary, Oman ccxxxviii

The adverse impacts of oil and gas companies operating in protected areas on the environment include deforestation and destruction of biodiversity to create exploration access routes, drill sites, pipelines and other infrastructure, explosions for seismic testing, as well as air, water, soil and noise pollution such as flaring and oil spills. CCXXXIX Secondary impacts include large influxes of people, "man camps" and road networks that make previously remote landscapes accessible to the logging industry and hunters.

Impacts of oil, gas and other extractive industries operating in protected areas on Indigenous Peoples and local communities can include forced displacement, human rights abuses, threats to cultural survival, violence including sexual violence, alcoholism and drug abuse, human trafficking, prostitution and illness. "Uncontacted" Indigenous Peoples in voluntary isolation are particularly vulnerable since they have no immunity to illnesses carried by extractive industry workers. Even diseases as seemingly innocuous as the common cold can decimate these remote populations. CCCXIIII For example, according to Survival International, "in the early 1980s, exploration by Shell in the Peruvian Amazon led to contact with the uncontacted Nahua. Within a few years, around 50% of the Nahua had died."CCCXIIII





Mining in Protected Areas

Source: CIFOR

UnProtected Areas

But oil and gas exploitation are not the only extractive industries which destroy Nature and poison people in supposedly protected areas. A 2013 study commissioned by the World Bank detected artisanal and small-scale mining operations, some of which use mercury, ccxliv inside or along the borders of 65% of the protected areas in 36 African countries. Ccxlv A 2015 study by the U4 Anti-Corruption Resource Centre found that "large-scale mining activities are occurring in at least 6% of protected areas globally, and within 10 kilometers of an estimated 14%" of the world's national parks. Ccxlvi Corrupt, secret and/or unlawful concessions for mining in protected areas have been granted in Cambodia, including "in large sections of Virachey National Park." Ccxlvii In Indonesia, a 1999 law banning mining in or next to protected areas was overridden by a 2010 decree that granted concessions to mine in protected areas, as long as the mining in question was greenwashed with offsetting, or the area rezoned. Ccxlviii

Driven by industrialization, urbanization, population growth^{ccxlix} and the transition to renewable energy,^{ccl} mining, including that in both terrestrial and marine protected areas, is expected to skyrocket. For example, the World Bank report "The Growing Role of Minerals and Metals for a Low Carbon Future" anticipates that demand for some minerals and metals for wind, solar and energy storage batteries such as aluminum, cobalt, iron, lead, lithium, manganese and nickel could increase 1000%. Colii According to the International Monetary Fund, "supplies of several metals crucial for the 'green energy' transition are heavily concentrated in a few countries." The Democratic Republic of Congo (DRC), for example, accounts for "about 70 percent of cobalt output and half of [all] reserves." Given the "human rights atrocities" related to mining documented in the DRC, and the mining of DRC's protected areas, such as the Okapi Wildlife Reserve, Colvi this huge increase in mining could intensify human rights violations and devastate the biodiversity that protected areas pretend to protect. According to John Lukas, co-founder of



the Okapi Conservation Project, "Mines draw in desperate people, depend on bush meat to feed the miners and are subject to extortion by rogue militias and the military." cclvii

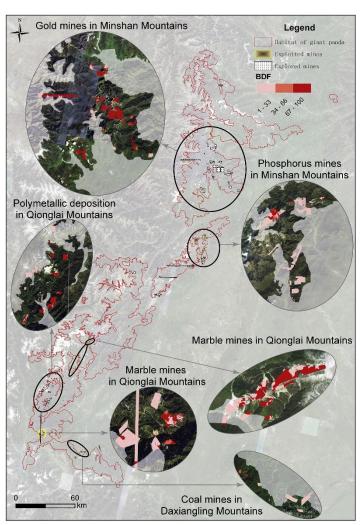
Mining the Giant Panda

The Giant Panda (*Ailuropoda melanoleuca*) is one of the world's most threatened species. In "Spatial coincidence between mining activities and protected areas of giant panda habitat: The geographic overlaps and implications for conservation," Kunyuan Wanghe, a biologist with the Chinese Academy of Sciences, and his team surveyed mining in the habitat of this beloved, vulnerable flagship species. The study area is comprised of giant panda habitat in the



Source: Mongabay

Qinling Mountains, Minshan Mountains, Qionglai Mountains, and Daxiangling Mountains, in



The spatial coincidence map among mining concessions and giant panda habitat

according to biodiversity factor (BDF) Source: Science Direct

Sichuan Province, China.cclx The study found that "from 2010 to 2019, a total of 197 mining concessions were detected in the habitat and protected areas of pandas, covering an area of 354.60 km²." Gold, phosphorus, coal, marble, silica and other metals and minerals are mined.cclxi Ironically, "the most important types of protected areas for conservation (e.g., strict nature reserve and national park) suffered the most impacts caused by mining activities."cclxii

Logging in Protected Areas

Giant panda habitat is also being logged. cclxiii Unfortunately, just because a forest is in a protected area does not mean it will not get clearcut. Protected areas cover "19% of global forests." cclxiv From 2000 to 2018, forest loss in and around protected areas intensified.cclxv Even in the strictest protected areas, forest loss was more than 4.5 times than forest gain.cclxvi greater Unfortunately, monoculture plantations, often comprised of nonnative species and almost devoid of



biodiversity, frequently accounted for what was billed as forest gain. CCIXVII Logging is a problem even in recently established protected areas. In Anthropocene Magazine, Warren Cornwall writes that "there's no guarantee that 'protected' land is safe from chainsaws." Scientists using satellites to track deforestation found that "around the world, between



2000 and 2012, forests equal to the size of the Netherlands were cut down inside newly set aside conservation areas..."cclxviii

Can protected areas put land and oceans on a silver platter for extractive industries?

Ironically, it may be easier for extractive industries to drill, mine or log a protected area than an unprotected area. In "Drilling through Conservation Policy: Oil Exploration in Murchison Falls Protected Area, Uganda," McGill University geographer Catrina A. MacKenzie *et al* argue that protected areas are more vulnerable to extractive industries because protected areas serve as a framework and land tenure regime for the commodification of Nature. "Neoliberal capital accumulation as a conservation policy actually makes protected areas more vulnerable to industrial exploitation because nature is commodified, allowing economic value and profitability of land uses to determine how nature is exploited. [Thus,] ...the protectionist policy permits oil extraction within Murchison Falls Protected Area." CCIXX

Not only are protected areas "more vulnerable to industrial exploitation because nature is commodified," but also because the land tenure and legal framework of protected areas can lend themselves to extractive industries' exploitation more readily than the land tenure and legal framework of communal tenure, Indigenous Peoples' collective territories or even private property, if the owners are opposed to extractivism.

As previously noted, grabbing Indigenous Peoples' land for protected areas and displacing those peoples is how the majority of protected areas have been established. Specifics vary according to region, country and type of protected area, but, in many cases, once Indigenous Peoples' territories have been expropriated and converted to a protected area such as a national park, the government has greater control over the governance, land tenure, land use and applicable laws, even if the expropriation is contested. Once a protected area is declared, governments can more easily grant concessions to extractive industries because they are less fettered by the legal framework on Indigenous Peoples' rights, which sometimes can serve to stop extractive industries. Furthermore, the laws that apply to a national park can be changed at any time by governments to facilitate extractivism.

Extractivism in Protected Areas: Coincidence or "Hidden Agenda?"

Some critics of CONservation even question if some protected areas are created for purposes of extraction, not conservation. For example, in *The Big Conservation Lie - The Untold Story of*



Wildlife Conservation in Kenya, cclxxiii journalist John Mbarai and conservationist Ogada Mordecai document efforts to create protected areas called community conservancies with about 8% of Kenya's land mass^{cclxxiv} by the Northern Rangelands Trust. In his review of the book, journalist Chris Lang highlights that "Mbaria and Ogada ask whether it's a coincidence that many recent oil discoveries are in areas controlled by the Northern Rangelands Trust." Subsequently, the Trust received a \$11.5 million donation from Tullow Oil, cclxxvi to create new conservancies, which County Governor Josphat Nanok declared illegal^{cclxxviii} and "ill-advised with a hidden agenda." Cclxxviii

Journalist David Hill has studied the relationship of Peru's protected areas and extractivism in depth. According to Hill, "sometimes - and I'm saying this slightly tongue-in-cheek - it feels like Peru's Areas Naturales Protegidas ('Protected Natural Areas'), or ANPs in the Spanish acronym, should really be called Areas Naturales Protegidas Para Petroleras, or ANPPPs, i.e., 'Natural Areas Protected for Oil and Gas Companies.' I say that not just because of the number of ANPs that are overlapped by oil and gas concessions, but because sometimes, given the way the legislation is cherry-picked and/or interpreted, it is easier for oil and gas companies to operate in these protected areas than if those same areas were classified under some other land category." CCIXXIX Hill cites a case in point.

A shining example is what has come to be known as the Sierra del Divisor region, a huge chunk of which had been proposed in 2003 to form part of an off-limits reserve for indigenous peoples in "isolation." However, instead of establishing that reserve, which would have prohibited oil and gas operations, the government created a temporary form of ANP [protected area] called a "reserved zone" in 2006 overlapping part of it and then upgraded that "reserved zone" to a national park nine years later, all the while permitting an oil company, Pacific Rubiales Energy, to explore for oil there. The park was established on the explicit understanding that Pacific could continue operating, and that was confirmed a year later in the official Management Plan. Ultimately, there was a sort of happy ending to all this because the company ran into financial problems and abandoned the concession, but that does not negate the fact that they had been given permission to operate there, in a supposedly "protected" area, both before the park was established and afterwards. CCIXXXX

Some communities' experiences with protected areas lead them to conclude that protected areas and extractivism are one in the same. According to University of Groningen researcher Nienke Busscher et al, in Land grabbing within a protected area: The experience of local communities with conservation and forestry activities in Los Esteros del Iberá, Argentina, "from the positioning of local people, conservation is extractivism." cclxxxi



On PADDDed paws - Downsizing Protected Areas for Industrial-Scale Extractivism

Another way that protected areas facilitate extractivism is that governments can reduce their size, change their boundaries and/or demote their level of protection — in short, further strip protected areas of protection. In addition to all the extractivism within or near their borders, the size of protected areas has been butchered for extractivism since their inception. Take, for example, Yosemite National Park. In 1905, a mere 15 years after its establishment, the U.S. Congress reduced its land mass by 30% "for mining and logging."cclxxxii In the last 20 years, this trend has accelerated significantly worldwide. The reduction of protected areas is so widespread that the conservation industry invented an acronym for it: Protected Area Downgrading, Downsizing, and Degazettement (PADDD). The 2019 report published in *Science* entitled *The uncertain future of protected lands and waters - Not all that protected, after all* indicates that 78% of all downsizing of protected areas has happened since 2000, and that "industrial-scale resource extraction" was responsible for 62% of the reductions. cclxxxiii

Even the United Nations lends its expertise to carve up protected areas for extractive industries. The UN Food and Agriculture Organization (FAO), for example, has given explicit, detailed recommendations on how to reduce the Trinity Hills Wildlife Sanctuary in Trinidad and Tobago's southeast region, also affectionately known as the Three Sisters, cclxxxiv to facilitate oil drilling. cclxxxv The FAO's Information Leaf entitled *Can oil and gas be included in protected areas?* - Improving forest and protected area management calls for slashing the size of the sanctuary, decreasing its protection, and facilitating oil prospecting and drilling. Some of the FAO's key recommendations are as follows:

- 1. Decrease the size of the Trinity Hills Wildlife Sanctuary by excising the areas of oil exploration
- 2. Lower the level of protection of the Sanctuary to that of Forest Reserve...
- Extend the PPA westward instead of eastward thereby excluding the area that seems to have a greater area under oil and gas exploration. The westward extension...avoids PETROTRIN's Moruga East field located west of the Trinity Hills Wildlife Sanctuary. cclxxxvi

What the FAO's recommendations have to do with food and agriculture is difficult to infer, but they do seem to suggest that the Three Sisters should be raped.

The abundance of drilling, mining and logging in and around existing and former protected areas including in World Heritage Sites makes one wonder if the massive expansion of protected areas proposed by the 30X30 plan and Half-Earth may also be used to access land and oceans for extraction.



RESOLVE-d to Mine

Concerns about the possible corollary between extractive industries' agenda and the vast expansion of the world's protected areas with the 30X30 plan and Half-Earth are not dispelled when reviewing the roster of their lead proponents. In this regard, revisiting the work of the NGO RESOLVE, which takes credits in its 2020 Annual Report^{cclxxxviii} for both the Global Deal for Nature, cclxxxviii a key reference for the 30X30 plan, and its Global Safety Net map, cclxxxix is warranted. As you may recall, the Global Deal for Nature and its "blueprint" for implementation, called the Global Safety Net, maps the lands and oceans, including up to 63% of Indigenous Peoples' lands that should be used for the creation of a global protected area with over half the world by 2050. ccxc

The Global Deal for Nature is a Raw Deal for Nature with Mining Galore!

An organization that is a lead proponent of a so-called Global Deal for Nature does not sound like it works extensively with the mining industry, but RESOLVE does. RESOLVE's mining industry portfolio includes "Green Lead," "Salmon Gold," "biodiversity-positive gold" as well as diamonds, "ccxciv minerals and gems from conflict areas like the Democratic Republic of Congo.

Green Lead

You may have thought that Clean Coal won the greenwash trophy, but RESOLVE's Green Lead may have Clean Coal beat. According to RESOLVE, "Beginning in 2003, the Green Lead Project was created with the following vision: 'mining, processing, transporting, treating, manufacturing, storing, using and recycling lead — with zero harm from lead exposure to people and the environment." First of all, the World Health Organization is categorical: "There is no level of exposure to lead that is known to be without harmful effects." RESOLVE's "using" lead with "zero harm from lead exposure to people and the environment" is impossible. In 2020, seventeen years after RESOLVE launched the Green Lead Project, UNICEF reported that "a third of children globally are being affected by lead



It only takes a speck of lead dust to poison a child

Source: Public Health Council

poisoning."ccxcv According to the UK's Public Health Council, it only takes a speck of lead dust the size of a grain of salt to poison a child.ccxcvi The Institute for Health Metrics and Evaluation calculates that lead exposure accounted for 900,000 deaths and 21.7 million years of healthy life lost worldwide due to long-term effects on health.ccxcvii José Toscano Bravo, National Coordinator of the Campaign for Healthier Solutions, which strives to get lead and toxic chemicals out of low-income communities makes short shrift of the idea of "green" lead. "In the United States, Latino children have been the most impacted by lead poisoning. It is absolutely shameful that anyone is trying to justify the use of lead no matter how "green" you pretend to make it. The link between



learning disabilities and lead exposure is one of the most documented links in the medical field. Calling lead 'green' is unconscionable and criminal." ccxcviii

Salmon Gold

RESOLVE's greenwash of the mining industry also includes "Salmon Gold." According to RESOLVE, "Salmon Gold remines historical placer gold mines" ccxcix and "supports stream habitat restoration"ccc in Alaska, the Yukon Territory and British Columbia. Gold from the project is now in the supply chains of Tiffany & Co. cci and Apple. Greenbiz reports that "Apple promises to embrace fish-friendly gold mining" with Salmon Gold. CCCIII But no amount of hype can make gold mining "fish-friendly." According to Michigan State University's Science Daily, mining damages the site of extraction as well as fish habitat "miles downstream, and even in streams not directly connected to the mines."ccciv Sebastian Jones, a wildlife and habitat specialist with the Yukon Conservation Society, agrees noting that placer mining "disturbs wildlife destroys habitat, and sediment from the mining activity spills into streams." cccv Sediment can choke streams and "jeopardize survival" or even be "lethal" for fish. cccvi "One study found that placer-mined streams had forty times fewer fish than did streams without mining."cccvii Less salmon could cause hunger in Alaska. According to the Wild Salmon Center, "up to 65% of protein consumed in rural Alaska communities comes from salmon." cccviii Not surprisingly, many Indigenous Peoples in Alaska defend salmon streams from mining. cccix

Salmon Gold prototype not so shiny

The prototype for Salmon Gold is located in Jack Wade Creek in the Fortymile River Region of Alaska, also simply known as Wade Creek. It consists of re-mining "old tailings, left on or near the stream"cccx from a placer mining site, expropriated during the Klondike Gold Rush. RESOLVE brags that "Salmon Gold has demonstrated proof-of-concept, completing our first two projects on Jack Wade Creek."cccxi However, proving that re-mining old gold mine tailings is good for salmon may be close to impossible.

First of all, Jack Wade Creek is on stolen Native land, part of the ancestral territories of the Dënéndeh Nation and the Hän Nation, the People of the River, cccxii also now known as the Tr'ondëk Hwëch'in, cccxiii which spans what is now the Alaskan-Yukon border. cccxiv Before the Klondike Gold Rush, hunting, cccxv trapping, fishing and collecting sustained the semi-nomadic Tr'ondëk Hwëch'in, who held and still hold salmon sacred. As a result of the Chief Isaac of the Hän Nation, 1898



gold rush and the stampede of as many as 100,000 miners, cccxvi the Tr'ondëk Hwëch'in "suddenly became homeless in their own homeland"cccxviii suffering forced displacement, cccxviiii epidemics and genocide. CCCXIX Therefore, restitution, reparations, Indigenous Peoples' Permanent Sovereignty over Natural Resources, cccxx free, prior, informed consent, and a host of other collective and



individual rights of the Tr'ondëk Hwëch'in and the Dënéndeh Nations, are all relevant and outstanding matters for any project in Tr'ondëk Hwëch'in and Dënéndeh territories, including RESOLVE's Salmon Gold.

Fish full of mercury
-Marvin Gaye

Secondly, the United States Geological Survey reports that "gold has been mined on Jack Wade Creek almost continuously since its discovery" in 1895, cccxxii and that, in 1987, the commodities of Jack Wade Creek Placer mine included not just



Jack Wade Creek Placer
Source: United States Geological Survey:
Jack Wade Creek Placer, 1987

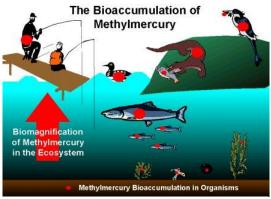
gold, but mercury as well. CCCXXIII In Mercury Potential of the United States, the U.S. Bureau of Mines lists Wade Creek of the Fortymile River region among the "Alaskan mercury properties." In the course of over a century of almost continuous mining in Jack Wade Creek, CCCXXIV it is probable that mercury has been accessed and released. The detrimental effects of mercury on fish and humans are well-established and far from "friendly." The Government of Canada warns that "almost all mercury compounds are toxic and can be dangerous at very low levels in both aquatic and terrestrial ecosystems. Because mercury is a persistent substance, it can build up, or bioaccumulate, in living organisms, inflicting increasing levels of harm on higher order species such as predatory fish and fish eating birds and mammals through a process known as 'biomagnification." In humans, mercury poisoning can result in life-long disability, birth defects, miscarriages and stillbirths. CCCCXXVIII In "Mercury Rising: Gold Mining's Toxic Side Effect," Human Rights Watch notes that in high doses "mercury can kill." CCCCXXIX

In addition to mercury being naturally present and dispersed throughout the ecosystem by mining the creek, mercury was likely used abundantly and continuously by gold miners in Jack Wade Creek since 1895, and, hence, probably found in the tailings that were re-mined for Salmon Gold. According to *Tales of Mercury-Containing Tailings*^{cccxxx} prepared by United Nations experts, "Tailings are the waste material... mainly of crushed and milled rock and water, [which] may also contain chemical reagents, such as mercury and/or cyanide, used in gold extraction."^{cccxxxi} Use of mercury for gold extraction was widespread in the Klondike region during most of the 20th century. Producing a pound of gold can require as much as 6 pounds of mercury, much of which gets lost in the environment or ends up in tailings. Cccxxxiii Re-mining the tailings of Jack Wade Creek may have released mercury into Alaska's water and soil, which may have traveled far downstream, as mercury has been scientifically proven to do. Cccxxxxv

According to the Métis mercury expert Tara Lamothe-Ammerlaan and her team's *The New Gold Rush: Placer Mining in the Fraser Watershed*, mercury is also found in the sediment of most placer-mined areas. "Current placer mining activity can excavate mercury in the sediment, which



can be broken into small particles when run through placer mining machinery, re-entering the ecosystem and possibly converting to the more toxic methylmercury form, which bioaccumulates, and causes health issues at low doses."cccxxxvi According to the Canadian government, "methylmercury, which is absorbed into the body about six times more easily than inorganic mercury, can migrate through cells which normally form a barrier to toxins. It can cross the blood-brain and placental barriers, allowing it to



Source: Government of Canada

react directly with brain and fetal cells." CCCXXXVIII Nonetheless, in 2019, Salmon Gold won a sustainable development prize from the U.S. Bureau of Land Management (BLM) for their placer. re-mining operation and world class reclamation at Jack Wade Creek." CCCXXXVIII

Biodiversity Offsets with Salmon Gold?

RESOLVE hints at developing and selling biodiversity offsets and carbon offsets as part of scaling up and cashing in on Salmon Gold. "In the future we will be seeking to scale up, looking for additional partners to support work at new sites, and establishing the eligibility of Salmon Gold restoration for mitigation funds."cccxxxix "Mitigation" is often code for offsets. Apart from selling the gold, RESOLVE seems eager to make money by selling biodiversity offsets for "restoring" salmon habitat where it has re-mined as well as selling carbon credits for the carbon sequestration occurring in the supposedly restored habitat. In this regard, RESOLVE's collaboration with infamous mining giant Rio Tinto is telling.

RESOLVE and Rio Tinto Restore Nature with Mining, Biodiversity Offsets and Carbon Offsets

In November 2021, RESOLVE's partnership with Rio Tinto launched a "mining start-up" cccxli called Regeneration that, like Salmon Gold, specializes in re-mining tailings. cccxlii The purpose of Regeneration is "to restore and renew biological and ecological systems such as forests, streams, and wetlands through full value mining."cccxliii Since when does mining renew and restore

biodiversity? On top of this preposterous proposition, Regeneration will also "create and trade biodiversity and carbon credits."cccxliv As part of such a scheme, multiple, complementary income streams could be generated by grabbing half the planet in the name of conservation, mining Mother Earth and pretending that the gaping, toxic wounds "restore and renew" Nature, Rio Tinto



selling the metals and minerals as part of "biodiversity, community, and climate positive minerals"cccxlv for the energy transition and "green tech,"cccxlvi as well as by selling permits to pollute and destroy more Nature. RESOLVE's partnership with Rio Tinto illustrates the deadly



convergence of extractivism, CONservation and carbon colonialism, which is the bedrock of Half-Earth and the Planet Grab.

RESOLVE's impressive portfolio with the mining industry and its leadership on the Half-Earth framework prompts the posing of crucial questions. Does the advent of Green Lead, Salmon Gold, "nature-first" mining, cccxivii horizontal drilling and net-positive extractivism card other greenwash hoaxes, which pretend that extractivism can be harmless or even good for the environment, mean that extractivism will be included in Half-Earth? Since existing protected areas are rife with extractivism, will Half-Earth be as well? What percentage of the land proposed for Half-Earth includes and spatially coincides with current and potential sites of mining, logging or oil and gas extraction? And what percentage of those sites of extractivism are on the land and waters of Indigenous Peoples and local communities? Since the governance of Half-Earth is not specified, who is going to decide whether extraction happens in Half-Earth? Seeing as the finances of Half-Earth are also unclear, will net-positive extraction, carbon offsets, biodiversity offsets and/or the sale of other "environmental services" be used to finance the Half-Earth regime? RESOLVE certainly seems to be promoting its special blend of mining, carbon offsets and biodiversity offsets as a viable prototype for Half-Earth.

Paris Agreement for climate and "Paris agreement for nature"

As has been noted, Half-Earth is a "union" with the Paris Agreement. Grabbing half the planet for conservation is inseparably united with carbon trading. In fact, in 2022, the Convention on Biological Diversity is expected to turn 30% of the world's land and seas into protected areas and produce "a Paris agreement for nature." This "Paris agreement for nature" will be implemented in tandem with the Paris Agreement on climate. The Planet Grab for CONservation colonialism interlocks with the Planet Grab for carbon colonialism. Protected areas of CONservation are already being used for offsets, and *vice versa* - offset projects are being marketed as CONservation.

In this regard, the United Nations is intent on "harnessing synergies" of protected areas and "climate mitigation" offsets, which could increase and reinforce land grabs. Combining Half-Earth and the Paris Agreement obeys the convergence, conglomeration and compounding of the drivers of the Planet Grab and their corresponding colonialist frameworks of dispossession and extractivism. Hence, the colonialism of CONservation as it is brokered under the Convention on Biological Diversity and shaped by Half-Earth *et al* dynamically intersects with, superimposes on and reinforces carbon colonialism brokered under the United Nations Framework Convention on Climate Change, especially in the form of REDD and, its latest incarnation, Nature-Based Solutions.



THE KICKER:

The Planet Grab's Convergence of Colonialisms: CONservation, CO₂lonialism, Extractivism and the expropriation of the territories of Indigenous Peoples, local communities and Africa

The convergence of the colonialisms of CONservation, carbon markets and extractivism is poised to intensify the expropriation of the terrestrial and marine territories of Indigenous Peoples, local communities and Africans, culminating in a Planet Grab. In addition to their entwined and parallel tracks of negotiations in the UN, hypocritical justifications about saving Nature and the climate, and merging financial strategies, ccclv in very concrete terms, the same geographies are in the sights of these compounding colonialisms.



Protesting the Planet Grab at the UN climate summit.

As documented above, the majority of the land and waters of existing protected areas as well as the lands and waters slated for Half-Earth are customarily held by Indigenous Peoples, local communities and African Peoples. CCCCIVI According to the Rights and Resources Initiative and researchers at McGill University, most of the lands, waters and territories targeted for carbon offsets also COVERIAN with areas customarily held by Indigenous Peoples, local communities, Afrodescendant Peoples CCCIVIII and Africans. As such, the compounded colonialisms of CONservation, Half Earth, carbon markets and extractivism compound injustices. This continuum of colonialism increases territorial expropriation, abuses and displacement; exacerbates conflicts and can result in militarization; harms Nature and makes climate change worse; and intensifies extractivism, both in terms of licenses to pollute as well as providing greater access and prerogative to pillage and plunder.

For example, the merger of conservation and carbon colonialism is apparent in biologist Bill Freedman *et al*'s "Carbon Credits and Conservation of Natural Areas,"ccclviii which documents how protected areas are being used for "climate mitigation" in the form of carbon offsets throughout the world. Marine Protected Areas are also being eyed for a "new system of blue carbon credits."ccclix Combining protected areas and carbon credits is part of "the quest to make conservation more profitable" and "the new economy of Nature."ccclx Hence, carbon offset or REDD projects are often within or adjacent to the borders of protected areas and national parks, many of which, as previously noted, are part of the ongoing history of violent forced displacement of tens of millions and the "war"ccclxi against Indigenous Peoples and local



communities, and include sites of extractivism. In many places in the world, REDD is being implemented or planned for on earth scorched and/or drenched in the blood of the dispossessed left landless and destitute by CONservation.



Adivasi women and children at the gate of the Periyar Tiger Reserve Park in Kerala, India. A voluntary carbon market for the park is in the planning phase. ccclxii Source: EJAtlas-Kalpavriksh

REDD Compounds Conservation Colonialism



Phoka women making pottery.

For example, in Malawi, "The REDD+ Program areas are located in a five-kilometer zone inside the boundaries of three key protected areas in Central and Northern Malawi including Nyika National Park."ccclxiii The implementer of the REDD+ program is Terra Global Capital, who calls itself a "Global Leader in Nature-based Climate Solutions that Produce Financially, Socially and Environmentally Sustainable Landscapes." Ccclxiv Much to Terra Global Capital's chagrin, ccclxv its Oddar Meanchey Community REDD Project in Cambodia^{ccclxvi} – also known as the "Buddhist monk forest conservation project"ccclxvii - has been denounced by REDD Monitor and the NGO Fern selling carbon credits from Phoka Pottery from Northern Malawi a project where the Cambodian army is destroying the forest." a project where the Cambodian army is destroying the forest."

According to Terra Global Capital's Kulera Landscape REDD+ Project for Co-Managed Protected Areas, Malawi – Project Design Document, ccclxxi a "group of hunter gatherers known as the Phoka were evicted from the [Nyika National] park in the 1960s and 1970s and resettled or assimilated in adjacent communities or near Lake Malawi."ccclxxii In Conservation through Cultural Survival, geographer Stan Stevens writes that the "expulsion of the Phoka from Nyika National Park in Malawi led to villagers perishing from malaria when they relocated to areas at lower



altitudes."ccclxxiii Forced relocation deprived the Phoka of their land base and sacred sites including what UNESCO calls the special "spiritual very sanctuary"ccclxxiv of Lake Kaulime, destroyed their homes, undermined their health, and resulted in assimilation, which threatened their cultural survival. In 1978, the park was expanded and "about 5,000 people"ccclxxv were evicted "largely by district government officials. Many of the evicted families lost their property"ccclxxvi and huts were "burnt to the ground."ccclxxvii Since 2013, four years after the Kulera Intergenerational Phoka Pottery Making. 1985. Landscape REDD+ project's start date, evicted people



Source: Phoka Pottery from Northern Malawi

have repeatedly requested restitution of their ancestral land, which is now part of the national park and REDD project, but justice has not prevailed. ccclxxviii If Terra Global Capital wants to "transform impoverished villages into prosperous, empowered communities" ccclxxix in one of the poorest countries in the world as it claims to do, it should support the restitution of the ancestral land to Indigenous Peoples and local communities forcibly displaced for the creation of the Nyika National Park, instead of doing REDD there and compounding the injustices of CONservation and carbon colonialisms.

> We are witnessing an intensification of violence both against nature and in defense of it. -James Robert Fairhead ccclxxx

Similarly, REDD in the Maya Biosphere Reserve of Northern Guatemala's Petén region also compounds colonialisms and their violence. According to Avispa Media, in the Maya Biosphere Reserve, REDD is part of the "continuum of repression" of genocide, counterinsurgency and protected areas against the Maya, and carbon offsets have become "the metric of displacement, deforestation and extractivism."ccclxxxi Increasingly, in the reserve and elsewhere, the militarization of conservation and carbon colonialism are framed as a question of national security. ccclxxxii According to geographers Elizabeth Lunstruma and Megan Ybarra, the Maya Biosphere Reserve is part of "green wars," which use "security threat narratives" for "state displacement from protected areas." Using security as a justification for conservation and REDD-related displacements is particularly ominous since REDD may eventually be framed not just as part of national security, but even global climate security. The experience in the Petén and elsewhere, such as in the Alto Mayo REDD project which is described next, show how REDD reinforces the use of armed guards, increases militarization and "supports the return of fortress conservation."ccclxxxvi These examples are also indicative of what the adverse impacts and militarization of the nexus of CONservation and carbon colonialism could be when they are upsized on a global scale.



Militarization in the Alto Mayo Protected Forest REDD Project

Militarized fortress conservation, carbon colonialism and extractivism converge in Conservation International's Alto Mayo Protected Forest REDD project in the Peruvian Amazon. CCCIXXXXVIII

Although under the auspices of corporate greenwasher *extraordinaire* Conservation International, ccclxxxviii the offset project is actually funded by the Walt Disney Company and the BHP Foundation of mining giant BHP. CCCXC The REDD project has exacerbated conflict, intensified militarization, cccxci and provided offsets and greenwash for Disney's cruise ships cccxcii and BHP,



Militarization of the Alto Mayo Protected Forest REDD Project in the Peruvian Amazon. *Source: REDD Monitor*

formerly BHP Billiton, cccxciii the biggest mining company in the world. Additional buyers of the carbon offsets include United Airlines, Microsoft and Gucci (How chic!) According to Bloomberg Green, "Disney [REDD] money has also inflamed a long-standing conflict between the government, which claims the land as a national park, and thousands of people who live there." Even though the REDD project is celebrated as an example of "green recovery" from the COVID-19 pandemic and a model of sustainable development, cccxcvi Conservation International begrudgingly admits failures. cccxcvii However, for geographer Dr. Lauren Gilford, who did research for her PhD in Alto Mayo, Conservation International's REDD project is more than a failure, it constitutes "carbon colonialism" plain and simple. cccxcviii

BHP's role in the carbon colonialism of the Alto Mayo REDD project merits further consideration. Both funder and offset buyer of the REDD project, BHP is infamous for the strip mining of its former 13,000-acre Navajo Coal Mine in New Mexico. In addition, there is the matter of BHP, Vale and Samarco's "endless crime: "d "a devastating mudslide following the collapse of the Fundoa [tailings] Dam," which affected entire towns, killed 19 people and is "regarded as Brazil's worst environmental disaster." BHP was also fined \$25 million for "violating the Foreign Corrupt Practices Act (FCPA) when it sponsored the attendance of foreign government officials to the [2008] Summer Olympics" held in Beijing. More recently, the Organization for Economic Co-operation and Development (OECD) accepted complaints filed against mining companies including BHP for "participation in and direct responsibility for a litany of serious and systematic



London Mining Network

violations of environmental, human and cultural rights"cdiii of the Wayuu Indigenous People, peasants and Afro-descendant communities, related to the colossal Cerrejón coal mine in Colombia. At one point, BHP was even poised to drill for oil near a coral reef in the Amazon.cdiv With such a deplorable record of decades of



"catastrophic environmental damage," cdv you would think BHP might refrain from dispensing environmental advice. However, in the case of the Alto Mayo REDD project, BHP Foundation has no compunction about telling Indigenous Peoples how to care for the Amazon.

The BHP Foundation's *Alto Mayo: Establishing a sustainable economic model in the Amazon, cdvi* crows that "this Project is helping Awajun [*sic*] indigenous communities and migrant farmers become effective stewards of the landscape's natural resources."cdvii If the Amazon still exists today, it is thanks to Indigenous Peoples, who have always been "effective stewards" and defended her with their lives for over 500 years precisely from brutal empires, extractive invaders, predatory governments and destructive corporations like BHP. Under REDD, the biggest mining company in the world has the gall to pretend to "help to manage natural environments, conserving them for the benefit of future generations,"cdviii when it is the 19th worst emitter of carbon dioxide in the world and among the top corporations most responsible for global warming.cdix Under REDD, BHP pretends to help "empower the Awajun [*sic*] communities and migrant farmers,"cdx while it is being sued for \$7 billion for "obliterating [Brazilian] villages,"cdxi and its coal mine in Northern Colombia hogged water as thousands of Wayuu children died of thirst.cdxii BHP's self-aggrandizing lie that it is a promoter of environmental stewardship illustrates REDD's quintessential perverse role reversal.



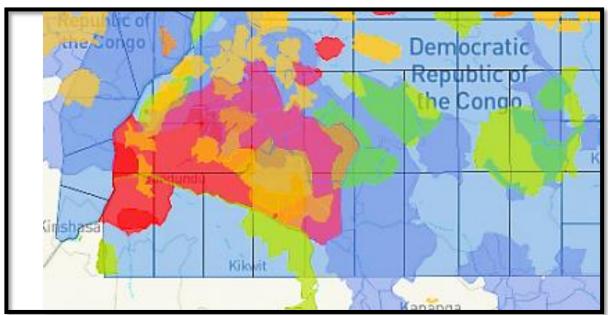
With REDD, extractive industries and the greenwashing CONservation industry, which they fund, cdxiii demonize Indigenous Peoples and local communities and portray them as forest destroyers while simultaneously pretending that extractive industries are the great saviors of Nature and experts in keeping forests standing and, therefore, should be the effective instigators of "improved forest governance" and de facto owners and rulers of the Amazon. This inversion of the truth is intrinsic to the cover-up of REDD's real agenda. REDD is not just a vile lie and massive land grab, it is a power grab by and for extractive industries, polluters and the real destroyers of Nature and the climate.



The Whole Kit and Caboodle – Visualizing Compounded Colonialisms

An exceedingly vivid portrait of the convergence and compounding of CONservation, carbon colonialism and extractivism in Indigenous Peoples' territories is provided by Mapping for Rights' Congo Basin Community Atlas, an initiative of the Rainforest Foundation UK and its local partners. Codx Mapping for Rights generates maps of the Congo Basin, the world's second largest tropical forest, a REDD+ hotspot with a long and ongoing history of massive, militarized forced displacements of Batwa for fortress conservation, as documented above. The following Mapping of Rights map of the western part of the Democratic Republic of Congo shows how Indigenous Peoples' territories (in dark blue), are superimposed, expropriated and colonized by protected areas (green), oil blocks (light blue with square outlines), logging concessions (orange) and REDD+ projects (in red).

Indigenous Peoples' Territories and Compounded Colonialisms: CONservation, Extractivism and REDD+



Democratic Republic of Congo

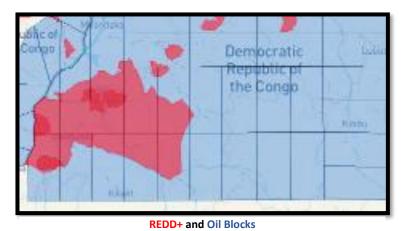
Color Key: Indigenous Peoples' territories; Protected Areas; Oil Blocks; Logging; REDD+

Source: Mapping for Rights

The following map is also of the western Democratic Republic of Congo and also generated from Mapping for Rights Congo Basin Community Atlas. cdxvi It shows only the overlays of the REDD+ project areas and oil blocks. The REDD+ areas shown in red are completely covered by the dark blue grid of oil blocks. The spatial coincidence of REDD+ and oil blocks, which have yet to be drilled, helps to debunk REDD+, and confirms that it serves to greenwash the oil industry, not just



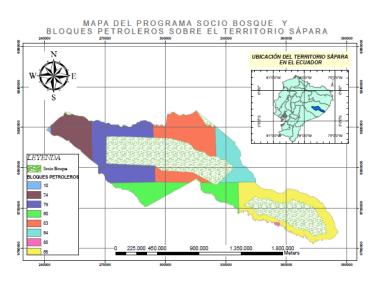
to "offset" extraction in the Global North, but also to strengthen its prerogative to plunder in the Global South, and, in particular, in the REDD+ project area itself, where it is supposedly preventing the destruction of forests and biodiversity.



Democratic Republic of Congo Source: Mapping for Rights

Similarly, across the world, in the Sapara Nation's territory in the Ecuadorian Amazon, the following map shows how REDD+, a variant of which in Ecuador is called Socio Bosque, is completely overlaid by oil blocks. Oil Blocks 79, 80, 83, 84 and 86 overlap the areas that are part of the Socio Bosque [REDD-type] project.

Map of Redd-type Socio Bosque Program and Oil Blocks in Sapara Nation's Territory



Oil Blocks in colors; REDD in textured white.

Map: Estefanía Mantilla



Protesting the UN's World Summit on Unsustainable Development Rio de Janeiro, 2012.



WHERE?

The Many Maps of Carbon Colonialism

Colonialists use maps to expropriate territories, create and control geographies, claim and defend empire, subjugate and rule.cdxvii As the colonialisms of CONservation, carbon offsets and extractivism converge and plans for large-scale implementation ramp up, diverse actors are sketching and staking their competing claims on maps. Thus, visualizing the lands, territories and seas slated for these compounded colonialisms is becoming viable. Thanks to the Global Safety Net map, we have an idea of the lands and waters slated for conservation, which is increasingly



Map of the British Empire, 1886.

Source: Walter Crane

combined with offsets, and we know that the majority of them are in Indigenous Peoples' territories. However, there is no comparable unified map that paints the whole carbon colonialism picture. Nonetheless, it is revealing to examine and compare the diversity of maps available, since their spatial coincidence and geography of competition show how the variety of the carbon colonialist forces are vying for a piece of the Planet Grab pie. As in the epoch of colonial empires, such maps overlap and change depending on who is getting the upper hand.

Forests: Beachhead of the Planet Grab

Forests are the beachhead of the Planet Grab for carbon colonialism. Since forests account for a third of the Earth's land surface, cdxviii REDD with forests could potentially occupy and control 30% of the planet's land. The "worlds' best-kept forests and ecosystems tend to be in indigenous peoples' territories, cdxx because, as even the UN acknowledges, cdx Indigenous Peoples are by far the best guardians of forests. cdxx Largely,



Indigenous Peoples protest REDD and carbon markets
Photo: Ayşe Gürsöz

thanks to Indigenous stewardship, about "three-quarters of the planet's remaining biodiversity" and "two-thirds of all species on Earth are found in natural forests," making them particularly attractive not only to carbon traders, but the conservation industry and biopirates well. As noted above, most of the lands, waters and territories including forests targeted for carbon offsets "overlap with areas customarily held by Indigenous Peoples, local communities, and Afro-descendant Peoples" and Africans. In the name of saving forests and the climate, cdxxvi REDD-type projects have already caused violent evictions, land grabs, human rights violations and threats to cultural survival. Cdxxvii REDD-type projects have also converted



forests into monoculture tree plantations and served as licenses to pollute and greenwash, allowing more fossil fuels to be extracted and burned.cdxxviii For all these reasons, over a decade ago, in 2011, Indigenous Peoples, Africans and local communities at the UN climate summit in Durban, South Africa, called for a moratoriumcdxxix on REDD because "REDD+ threatens the survival of Indigenous Peoples and forest-dependent communities and could result in the biggest land grab of all time."cdxxx

Unfortunately, the call for a REDD moratorium fell on deaf ears. Since REDD+ was introduced in 2007, approximately 600 individual REDD+ projects and programs have been initiated in more than 65 countries, cdxxxii roughly 400 of which are currently active. Cdxxxiii Over \$10 billion cdxxxiii has been allocated to use forests as carbon offsets and change the legal framework, land tenure and governance of forests worldwide. Most of the money for REDD comes from the governments of Norway, Germany, the United Kingdom and the United States as well as the World Bank.

REDD is by no means monolithic. Variants of REDD and other forest and nature offset initiatives include the often overlapping UN-REDD, REDD+ under the UN climate convention, subnational REDD or jurisdictional REDD, Landscape REDD+ - "The Biggest New Game in Forest Management,"cdxxxv the World Bank'scdxxxvi Forest Carbon Partnership Facilitycdxxxvii and BioCarbon Fund Initiative for Sustainable Forest Landscapes, LEAF (Lowering Emissions by Accelerating Forest finance),cdxxxviii extractive industries' and corporations' own forest offset portfolios, voluntary offsetting, carbon cowboy projects,cdxxxix California REDD, and countries' own national offset markets. As for national forest carbon markets, in 2021, Russia announced it plans to offset carbon with the taiga or Northern snow forests of Russia's Far East. According to Bloomberg, "the aim ostensibly is to monetize an area nearly twice the size of India by turning it into a marketplace for companies to offset their carbon."cdxl

REDD's Exploding Scope and Scale

However, REDD is no longer limited to forests. REDD's scope has exploded to include all terrestrial ecosystems including soils, agriculture, crops, organic farming, grasslands, savannah, tree pits in cities, deserts as well as wetlands, mangroves and coasts. REDD's scale has also exploded. REDD is no longer limited to small project areas or national parks. Increasingly, REDD is proposed for entire states or provinces in the case of California REDD, whole countries in the case of LEAF, cdxlii or even multinational, linked protected areas, cdxliii biological corridors, cdxliii regions and the ocean. According to Yale University's e360, "The scale for potential carbon grabs is huge." cdxliv

UN-REDD Map

For example, the map of the UN-REDD Program, which includes the UN's Food and Agriculture Organization, UN Development Program and UN Environment Program, shows the 65 countries^{cdxlv} in Africa, Asia-Pacific, Latin America and the Caribbean where UN-REDD is



promoting REDD, which cover "70% of all tropical forests." The countries in UN-REDD cover the heart of Africa and its western coast, almost all of South East Asia and much of Latin America. If you add Brazil to the map, almost the entire Equatorial Belt is being targeted for REDD. Since the Equator receives more sun and energy and enjoys the most stable climate, the Equatorial region enjoys the greatest concentration of Life, biological diversity and tropical forests, and, hence, is particularly desirable for carbon traders.



United Nations climate convention REDD Map

Even amongst the United Nations agencies and instruments, there appears to be overlap and competition to stake out claims to the world's land for offsetting. Another arm of the UN, the United Nations Framework Convention on Climate Change (UNFCCC) has a map on its REDD+ Web Platform, which shows countries with REDD+ activities including some of those in the Global North doing REDD in the Global South.



Source: UNFCCC



On this UN climate convention map, unlike the UN-REDD map, Brazil and the much-coveted-for-offsets Brazilian Amazon are included. Brazil's first year's submissions uploaded to this interactive map is a telling sale of offsets to Petróleo Brasileiro S.A. better known by the acronym Petrobras, the state-owned Brazilian multinational petroleum company. CdxIVIII Petrobras has since caused an oil spill which its CEO recognized might



Petrobras' 2019 oil spill: "The Worst Environmental Attack"

Source: Black Brazil Today.

be the "worst environmental attack in Brazil's history." Perhaps these photographs of the oil spill would be a more fitting background than rainforest ferns for the UN climate change convention's REDD+ map.

The UN climate convention version of REDD+ overlaps but also differs from UN-REDD in terms of which parts of the UN are doing REDD with which countries, but also in terms of funding streams. For example, the Green Climate Fund associated with the UN climate convention gave funding to Brazil to boost REDD+, cdxlix while UN-REDD has not, since Brazil is not one of its partners. One of the factors influencing these differences is how nation states are building their carbon markets and/or implementing REDD. Brazil, for example, is eager to sell carbon credits to the likes of Petrobras from its forests and the Amazon directly, without UN intermediaries. That does not mean that carbon traders, polluters and even other states in other countries are not sidestepping the federal government of Brazil and implementing or poised to implement REDD in Brazil of their own accord, cdl as we will see anon in the case of California REDD.

World Bank REDD Map

A host of additional forest offset initiatives overlap with some of the REDD areas of the UN-REDD and UN climate convention REDD+ maps as well as cover other areas not included by those maps. For example, the 2021 map of the World Bank's Forest Carbon Partnership Facility (FCPF), cdli whose donors include British Petroleum (BP), cdlii shows REDD promotion



World Bank REDD+ promotion and pilot projects

Source: FCFP Annual Report, 2021.

and pilot projects in 62 countries. The FCPF's Readiness Fund helps "developing countries set up the building blocks to implement REDD+"cdliii and its Carbon Fund pilots "results-based payments



for REDD+ efforts in developing countries."cdliv According to the FCPF's 2021 Annual Report, the Carbon Fund's "combined program areas" for REDD+ pilot projects are "110 million hectares"cdlv of forests in 15 countries. The area of 110 million hectares of World Bank REDD+ is approximately 424,712 square miles,cdlvi which amounts to REDD+ projects larger than the size of Bolivia (424,162 square miles)cdlvii or slightly less than 3 times the size of Montana.cdlviii The amount of land used for REDD+ under the FCPF will probably increase as more of the 47 countries working with the Readiness Fund begin REDD+ implementation. Since the Facility is an initiative of the World Bank's Climate Change Fund Management Unit, which has "\$5 billion in capital available,"cdlix funding does not appear to be an obstacle. It is worth noting that, in addition, the World Banks' BioCarbon Fund's Initiative for Sustainable Forest Landscapes has forest carbon offset projects in formative stages with many millions of hectares for REDD+ in Colombia, Ethiopia, Mexico, Indonesia and Zambia.cdlx

California REDD Map

California REDD sounds like a nice Merlot, but it's really carbon colonialism to increase pollution and grab land. With California REDD, cdlxi the State of California, the world's fifth largest economy and second largest carbon market, cdlxii plans to use more than 30% of the world's tropical forests

as carbon dumps for its air pollution.cdlxiii In 2008, Governor Arnold Schwarzenegger - yes, good ol' Terminator himself – created the Governors' Climate and Forest Taskforce to do California REDD, which has since grown to include 38 member states and provinces, cdlxiv many of whose countries are also participating in other REDD initiatives. California wants to use Native Nations' territories, local communities and peasants' land to absorb its greenhouse gases, so California's polluters like Chevron don't have to cut pollution at home. As the following California REDD map shows, the land that the Golden State wants to use for REDD includes "over onethird of the world's tropical forests... including eighty-five percent of Peru's, more than a half of Indonesia's, and all Brazil's Legal Amazon."cdlxv Despite adamant international opposition, in 2019, the California Air Resources Board adopted the California Tropical Forest Standard, a major step towards implementing international California REDD and a significant political and symbolic boost to other REDD regimes all over the world.

Who benefits from offsets in California? Top 10 offset users in California (In metric tons) Chevron USA (1,661,723) Calpine Energy Services (1,550,126) Tesoro Refining & Marketing Company (1,393,592) Southern California Edison Company (1,042,864) Shell Energy North America (617,450) Pacific Gas & Electric Company (446,838) Benicia Refinery and Asphalt Plant (435,785) La Paloma Generating Company (400,068) San Diego Gas & Electric Company (398,720) NRG Power Marketing (331,469) California is trading away our opportunity to reduce greenhouse gases and clean the air. Tell the California Air Resources Board to say no to international offsets in our state! Take action today: bit.ly/NoREDDinCA

California's top domestic offset users include oil giants and refineries. These polluters could also eventually do international California REDD in other countries.

Source: CEJA





Californian polluters are already using forests in the State of California and the rest of the United States for offsets. According to the California Environmental Justice Alliance, oil giants, refineries and utility companies are the top users of domestic offsets including forest offsets. Chevron, California's largest polluter, whose Richmond refinery explosion in 2012 sent over 15,000 Californians to the hospital, cdlxvi tops the list of the state's offset users. In fifth place, Shell is using Michigan forests, which it has dubbed "Shell Forests," to offset its refinery in Martinez, California. Cdlxvii Chevron and Shell could also eventually use offsets from international California REDD in other countries.



Protest against California REDD



Explosion at Chevron's Richmond refinery. 2012.

Source: U.S. Chemical Safety and Hazard

Investigation Board

Sometimes carbon trading is so absurd, you just have to laugh. Under California's Forest Protocol, cdlxviii a piddly sapling in a Manhattan tree pit is an "urban forest" that can also offset Californian polluters. In addition, California may eventually use Canadian forests including the vast boreal forest through the Western Climate Initiative, cdlxx which hopes to turn into the "North American regional carbon market" and be "a Green Economy Growth Tool!" cdlxxii California's current domestic forest offset protocols lead to clearcutting forests and tree plantations, cdlxxiii and its international forest offsets could as well.



REDD + Indigenous Peoples = GENOCIDE



Many Indigenous Peoples and communities who live in the forests that California is targeting for offsets say "No Way!" For example, the Xapuri Declaration, signed by Apurinã, Huni Kui, Jaminawa, Manchineri and Shawadawa Indigenous Peoples, representatives of

traditional communities, rubber tappers and allies from the western Amazon of Brazil, defiantly states "We reject any form of climate

colonialism." collxxv Similarly, the Confederation of Indigenous Nationalities of Ecuador (CONAIE) "categorically reject[s] the implementation of REDD." Indonesian peasant leader Tejo Pramono denounces that REDD is "expropriating farmers' land." collxxvii La Via Campesina,



the world's largest peasant federation, noted that REDD "opens the door to land grabs." cdlxxviii Kichwa leader Marlon Santi of Sarayaku, a co-founder of the Global Alliance against REDD, explains that "our forests are spaces for life, not carbon markets." According to the No REDD in Africa Network, "REDD is already contributing to the persecution and criminalization of activists, including in Cross River State, Nigeria where California intends to do REDD. cdlxxix REDD could cause genocide and must be stopped." cdlxxxi

Indigenous Peoples in California are also vehemently opposed to REDD. The Executive Director of the Seventh Generation Fund, Chris Peters of the Pohlik-lah and Karuk Tribes, grounds his organization's opposition to offsets in respect for the Sacred. "It is a breach of the ethical foundation of Earth-based spiritual understanding to sell the air and to continue unabatedly polluting for personal and corporate profit. As an Indigenous organization located in the far north Redwood forested region of California, we stand firmly...in absolute opposition to REDD."cdlxxxii Thomas Joseph of the Hupa Tribe of Hoopa Valley assumes the responsibility to resist the continuum of colonialism. "To meet your ancestors once this life is done, and for them to say we survived the boarding schools, we survived the 49ers, the Gold Rush, we survived the state of California paying their citizens to scalp our people, we survived the United States military, the wars against our people... and you lost it to the carbon bankers, you lost to false solutions... that's something I'm not willing to do. It's a continuation of the same fight.cdlxxxiii

The following sidebar critiques the prototypes for California REDD, which are in the State of Acre, Brazil and the State of Chiapas, Mexico, as well as an offset project of Chevron in Brazil.



ACRE, BRAZIL

In Acre, a California REDD^{cdlxxxiv} pilot project with rubber trees^{cdlxxxv} has raised the specter of the slavery of Indigenous Peoples and rubber tappers during the colonial rubber boom. According to the Xapuri Declaration, REDD is reminiscent of "schemes that refer back to semi-slavery and debt bondage... in colonial times."^{cdlxxxvi} Forest offset projects are already resulting in people getting "fined, criminalized,



Amazonians enslaved during the colonial rubber boom.

indebted, without conditions to maintain their ways of life."cdlxxxviii The Declaration also denounces how logging companies are doing REDD and how "the residents of the rubber tree areas Valparaíso and Russas, who [were] coerced to submit to a REDD project, are threatened with expropriation of their lands."cdlxxxviii Amazonian Indigenous Peoples who oppose REDD have received death threats.cdlxxxix Nonetheless, they continue to resist and "stand with the people from other countries who live in the areas impacted by the pollution generated by destructive companies. No one should live in contaminated areas; it is time to end all kinds of racism, including environmental racism." cdxc

CHIAPAS, MEXICO



Photo: Orin Langelle

Indigenous Peoples' and peasant movements from Chiapas "reject REDD+ in all its versions [and want to] stop the agreement between the governments of California, Acre and Chiapas!" cdxci REDD is "a climate mask...to cover up the dispossession of the biodiversity of the peoples." cdxcii According to REDD Monitor, REDD in Chiapas and in Mexico as a whole is resulting in "expulsions, privatizations and indebtedness." cdxciii The Friends of the Earth report, REDD+ The

carbon market and the California-Acre-Chiapas cooperation: Legalizing mechanisms of dispossession^{cdxciv} summarizes the adverse impacts of REDD. "[T]he logic of REDD allows them to seize control of the territories of traditional communities, thereby enabling corporate access to plants and animals that are being appropriated by the pharmaceutical industry...REDD is being denounced... for being responsible for the violation of the rights of indigenous and traditional peoples for whom agrarian issues are central. Territories... are being expropriated through



Photo: Otros Mundos

the promotion of private property, and traditional skills, livelihoods and collective practices are being eliminated."cdxcv Furthermore, "the safeguards are merely an instrument of rhetoric and a way of neutralizing criticisms of REDD projects."cdxcvi The Tzeltal People of the community of Amador Hernandez have asked the governor of Chiapas to "suspend the state REDD+ project in the Lacandon Community Zone, as it constitutes a counterinsurgency plan that promotes conflicts between neighboring communities."cdxcvii



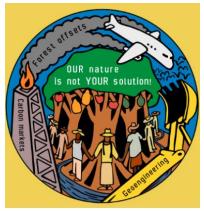
<u>CALIFORNIA POLLUTERS</u> are already doing REDD of their own accord and to prepare for California REDD. For example, Chevron which, in 2001, merged with Texaco, infamous for contaminating



Photo: Sánchez/Cass

the Ecuadorian Amazon, uses armed guards for a REDD-type project in Brazil. Chevron along with The Nature Conservancy, General Motors, American Electric Power and the Society for Wildlife Research and Environmental Education have implemented the Guaraqueçaba Climate Action Project in the ancestral territory of Guarani People with uniformed armed guards called "Força Verde" or "Green Force." The guards intimidate and persecute local communities jailing and shooting at people who go into the forest as well as forcibly entering and searching private homes without due authorization.cdxcviii According to the World Rainforest Movement, project caused devastating has impacts communities."cdxcix

The New REDD – Nature-Based Solutions



Source: Global Forest Coalition

Now we turn to a driver of the Planet Grab based on the new name for REDD, Nature-Based Solutions (NBS). The expanded scope of REDD and NBS, also called Natural Climate Solutions, uses all kinds of ecosystems, agriculture, soils, crops and even animals for carbon offsets. Friends of the Earth-Netherlands reports that Nature-Based Solutions are "a cheap way for companies [like BP, Eni, TotalEnergies and Shell] to avoid actual reductions in fossil fuel production and consumption," and that NBS is on the verge of "triggering a massive land grab in the global South." Because of NBS' inclusion of agriculture, soils and crops, not just Indigenous Peoples' territories, but peasants' land is also

increasingly targeted for land-grabbing. NBS is being promoted in both the negotiations of the Convention on Biological Diversity as well as in the UN climate convention. Civil society organizations from all over the world called out Nature-Based Solutions as "Nature-Based Dispossessions." According to Jutta Kill of the World Rainforest Movement: "The beautiful sound of 'Nature-Based Solutions' is deceitful. 'Nature-Based Solutions' is REDD re-branded and expanded. For 15 years now, REDD has... provided cover for fossil fuel companies to keep on" extracting and burning. "Nature-Based Solutions will result in the same conflicts and land grabs as REDD has... and fuel, not slow, climate breakdown and deforestation."



Net Zero is NOT Zero, it's a death sentence

REDD, Nature-Based Solutions and other offsets are a key part of claims to achieving so-called carbon neutrality and net zero emissions. Net zero emissions sounds like it cuts emissions to zero but it does not. Net zero emissions pretends to "remove" pollution with false solutions to climate change to justify polluting more. Net zero emissions does not reduce pollution,



Glasgow climate march

Source: GGI

it increases pollution. Net zero is **NOT** zero, it's just more

greenwash and carbon colonialism. At the UN climate change summit in Glasgow in 2021, African civil society organizations admonished that "no African government should commit to the net zero scam, as this will be a death sentence to the African continent and the world at large." div

Unfortunately, many countries and corporations' climate policies set net zero emissions as their goal. For example, the primary objective of the U.S. Congress' Green New Deal bill (House Resolution 109), sponsored by Congresswoman Alexandria Ocasio-Cortez, is to have the Federal Government "create a Green New Deal... to achieve net-zero greenhouse gas emissions," which means greenwash and false solutions to climate change including nuclear power. The net zero fraud of the Green New Deal is consistent with the origin of its name. Rather than springing from the New Deal designed to create jobs during the Great Depression of 1929-1939, as many people may think, the term "Green New Deal" comes from a 2009 United Nations report called "A Global Green New Deal" for the Green Economy Initiative aka capitalism based on the commodification of Life. Like the net zero targets of Big Oil, the Green New Deal's net zero target not only does not reduce global warming, it also drives the Planet Grab.

Net Zero: Land grabs bigger than the size of the planet's farmland

For example, in *Tightening the Net: Net zero climate targets* – *implications for land and food equity*, Oxfam concluded that for governments and companies to achieve "net zero" by 2050 using "landbased" carbon removal methods – a category that includes tree-planting, reforestation projects and using soil to capture carbon – "would require at least 1.6 billion hectares of new forests,

equivalent to five times the size of India or more than all the farmland on the planet."dviii Another way of visualizing 1.6 billion hectares is that it is roughly the equivalent of Brazil and Australia combined.dix Instead of cutting emissions at source "to avoid catastrophic climate breakdown,"dx net zero could result in an "explosion in the



Source: Oxfam



demand for land"^{dxi} for offsets and increase massive land-grabbing and hunger. Oxfam's graphic helps to visualize the magnitude of the possible land grabs for carbon offsets. As for whose land would be used, the emerging pattern strongly suggests that it would be Indigenous Peoples', local communities', peasants', Afro-descendants' and Africans'.

Shell's Net Zero: Forests the size of Brazil

No map yet exists that compiles all the current and proposed uses of REDD+ and Nature-Based Solutions for net zero scams by governments and corporations, but the amount of land even individual companies want to use to supposedly offset their emissions is considerable. For example, the global net zero scenario of Shell, the world's seventh largest historic polluter, dxii relies on the creation of a new forest for offsets the size of Brazil. In addition, "the Shell's Offsets: The Size of Brazil

more than double."dxiv Doubling the amount of bioenergy would require even more land to grow trees, unless Shell is planning to log its Brazil-sized offset project and burn the wood for bioenergy. Crazy and polluting as that sounds, the United Nations and some



countries do allow offset projects to log and even clearcut forests or plantations. With the help of the logging industry, the UN invented the handy moniker "temporary unstocked" carbon to describe clearcuts that continue to get carbon credits as if they were standing forests.

Carbon Colonialist and Climate Profiteer: Shell buys and sells Nature-Based Solutions^{dxvi}

Shell is not just buying offsets. dxvii Since carbon trading is so profitable, Shell is also selling offsets. According to the company, "Shell invests in Nature..." so it and its customers can keep polluting. Under Shell's "Drive Carbon Neutral" campaign, "customers who fill up at a Shell service station in the Netherlands will be able to drive carbon neutral through the use of nature-based carbon credits." Shell is also using and re-selling carbon credits to other polluters from Peru's Cordillera Azul National Park REDD Project, dxx Indonesia's Katingan REDD project in the Dayak People's traditional territory and the GreenTrees Reforestation Project in the Mississippi Alluvial Valley. dxxii Although Shell claims "we work with projects around the world that help reduce CO₂ emissions, while improving the lives of local communities and protecting

biodiversity,"dxxiii Peru's Cordillera Azul National Park REDD Project is contested by Indigenous Peoples. According to REDD Monitor, "In 2021, the Indigenous Kichwa community of Puerto Franco took the Peruvian Government and the Cordillera Azul National Park to court.dxxiv The Kichwa community is challenging the Peruvian State's failure to title their traditional lands, as well as the imposition of



Protest in South Africa.

Source: Central News



exclusionary conservation and a REDD carbon trading scheme on their lands – without their consent."dxxv The right to free, prior, informed consent of the "uncontacted" Cacataibo (also spelled 'Kakataibo') Indigenous People living in voluntary isolation, who are reported to live in the southeast region of the park, dxxvi has also been violated by the REDD project. dxxvii Extractivism and greenwash are, as usual, part of the REDD equation. Oil, mining and forestry concessions cover almost the entire buffer zone of the park. dxxviii Offset buyers include oil and gas companies Gazprom, China National Offshore Oil Corporation, Tokyo Gas, Repsol, and Enagás in addition to Shell itself as well as airlines like British Airways, Delta and Qantas. dxxix Meanwhile, a joint investigation by *SourceMaterial* with *Bloomberg* found problems with Shell's 'Drive Carbon Neutral' campaign. Apparently, "forests Shell says it's protecting in Peru and Indonesia may not be in immediate danger, while benefits from a Scottish tree-planting project are apparently being counted twice."

Chevron buys and sells Nature-Based Solutions in "Cancer Alley"

Chevron is also using Nature-Based Solutions^{dxxxi} to offset its own emissions as well as selling offsets to its customers. Chevron reports that in Louisiana "the St. Charles Parish cypress reforestation project is expected to generate carbon offsets that could both help offset Chevron's

carbon emissions, and also help customers achieve their lower carbon goals."dxxxiii The offset project is located in the heart of what is known as "Cancer Alley," an area along the Mississippi River spanning from Baton Rouge to New Orleans, Louisiana, which houses over 150 petrochemical plants and refineries, where many residents are sickened by pollution and resist environmental racism.dxxxiii



Source: Climate Justice Alliance

Quintessential CO2lonialism: Eni's Net Zero with a Chunk of Africa



Shell is by no means the only oil company pledging to reach net zero with fraudulent offsets. The Italian oil firm Eni whose drilling harms communities in the Amazondxxxiv Nigeria, dxxxv and pledged to has reach net zero carbon emissions for its operations by 2030, despite announcing plans to increase oil and gas production by 14% in the next four years. dxxxvi Eni's initial plans to achieve net-zero emissions included REDD, natural climate solutions dxxxviii and grabbing a chunk of Africa almost the size of the State of South Carolinadxxxviii in Mozambique, South Africa, Ghana and Zimbabwe. Families will be at risk of getting kicked off their land and going hungry, so that Eni can drill and burn more

fossil fuels and pretend that 8.1 million hectares of trees^{dxxxix} is going to absorb the resulting pollution. Eni's quintessential carbon colonialism was denounced by civil society in a letter to both them and Shell entitled *CLIMATE CRIMINALS: ENI and Shell, keep the fossil fuels in the ground! We don't want your false forests!* "There is no unused land available at this scale, which



means millions more people will be affected, through the loss of their land, homes and forests. Areas teeming with biodiversity will become monoculture [tree] plantations. This will undoubtedly have calamitous impacts on the food sovereignty and rights of people across Africa... What would Eni say if the tables were turned, and Africans wanted all of Northern Italy to plant trees?"dxl

Planting a Trillion Trees requires land 2-4 times the size of the United States



Source: Desmog

In addition to proposing massive tree plantations on other peoples' land, Eni and Shell are both members of the corporate alliance of the Trillion Tree Campaign, dxli which was launched by the World Economic Forum in 2020. dxlii As its name suggests, the Trillion Tree Campaign intends to plant a trillion trees by 2030 for "nature-based solutions" offsets to lock-up carbon. dxliii The lock-up carbon language

sounds like greenhouse gas mass incarceration, but the Campaign presumes to be "a major initiative in the global effort to tackle the climate change and biodiversity crises." Run by World Economic Forum's 1t.org, and a German NGO called Plan-for-the-Planet, the Campaign enjoyed the initial financial support of Marc and Lynne Benioff of Salesforce and was endorsed by that vehement denier of climate change, dxlv Donald Trump. dxlvi

Primatologist and conservation icon Jane Goodall is also a fan of tree planting for carbon credits. The Jane Goodall Institute's REDD project in Tanzania was chalked up as "a totalitarian approach to conservation that led to increased inequity, undermining of democracy, and violent evictions" dxlviii by REDD Monitor based on E. J. Lorde's research. dxlviii In an artful pivot and rebrand, Goodall is now promoting *Trees for Jane*, which is



Source: Global Frontlines, Wretched of the Earth

partnering with the Trillion Tree Campaign. dxlix According to *Mongabay*, "Goodall has also advised the Trillion Tree Campaign and 1t.org on how to ensure tree-planting efforts are responsibly undertaken."dl Given the Jane Goodall Institute's abysmal fiasco with REDD in Tanzania, it hardly seems prudent to follow its lead.

Environmentalists have denounced the Trillion Tree Campaign as "treewashing the climate crisis" die because carbon offsetting through tree planting will not help solve the climate crisis. die Monoculture tree plantations are "false forests" and "green deserts" that destroy biodiversity, hog water, use agrotoxins, are prone to plagues and forest fires, can exacerbate droughts and do not permanently store carbon. die In fact, according to the BBC, massive tree planting can "do



more harm than good to the environment," and can even "backfire and reduce biodiversity with little impact on carbon emissions." Furthermore, *Mongabay* notes that there are "concerns about the potential social and environmental impacts, especially if trees are planted at the expense of native ecosystems or if land targeted for planting is seized from local communities." div

How much land? - More than the size of Africa?

Just how much land might be "seized"? The Metro Council, part of the City of Portland, Oregon's local government, crunched the numbers on the amount of land that a trillion trees might require. According to *Can planting a trillion trees save our planet?*, "Forests typically have 100 to 200 trees per acre. One trillion trees would require five to 10 billion acres of land, two to four times the entire area of the United States." The United States is nearly 1.9 billion acres, divii so, planting a trillion trees could require several United States' worth of land, or more than the entire African continent, which is about 11.7 million square miles diviii or 7.4 billion acres. It is important to note that the land for planting a trillion trees could be outside of forests and/or overlap with the land and forests slated for the diverse forms of REDD.

Whose land?

The following 2018 map of "Global Reforestation Potential" shows that a high concentration of the land coveted for tree planting is in the Equatorial Belt, especially in Africa, as well as in Brazil and South East Asia. According to expert Joary Niaina Andriamiharimanana, technical advisor for forest landscape restoration in Madagascar of the German Corporation for International Cooperation (GIZ), "Africa has by far the biggest potential for forest landscape restoration worldwide, with an estimated 700 million hectares of degraded land and forests." dlxii



Source: Global Reforestation Potential - Opportunities for forest restoration on degraded lands.

Map Image Layer from World Wide Fund for Nature. 2018.



Tellingly, the map notes its limitations including that "important factors could not be considered for lack of data, such as resource tenure and land use dynamics." Nor does it indicate what percent of the proposed land for reforestation already belongs to Indigenous Peoples, peasants, local communities, Africans, or others.



Source: Global Forest Coalition

A Zillion Trees requires More Planets



The World Economic Forum's Trillion Tree Campaign is just one of many initiatives to plant huge quantities of trees for carbon offsets, some of which have very similar names. In addition, there is also the Trillion Trees initiative of WWF, Birdlife International and the Wildlife Conservation Society. All these different and overlapping tree-planting-for-offsets schemes might require more than one planet. In

"We are going to need a bigger planet: The problem with planting trees," *The Guardian* reports that "there just isn't enough land on Earth to plant enough trees to soak up all the carbon that big polluters keep spewing into the atmosphere."

According to the expert on digital vegetation mapping, Dr. Andres K. Skidmore and his team, "The emerging global political myth of massive tree planting and restoration as a panacea for global warming requires an unrealistically large area." "At worst, tree planting schemes — beyond being ineffectual — can harm or displace vulnerable communities," warns *The Guardian*. dlxvii

How much land would it take to plant all	these trees?
Many plans to achieve "net-zero" carbon emissions requir reforest previously forested areas or sequester carbon in t land on earth to offset continued carbon emissions?	
To meet their 2050 goals, TotalEnergies would need 2.6m hectares of land, which is about the size of Haiti.	Haiti •
ENI would need 16m hectares, which is about the size of Cambodia.	Cambodia
BP would need 22.5m hectares, which is about the size of Ghana.	Ghana

Source: Guardian graphic.
Tightening the Net by Oxfam and Guardian research. 2021.



Cancun climate march.

For example, according to political ecologist Usman Ashraf, the "Billion Tree Tsunami" project launched in Pakistan in 2014 destroyed the pasturing lands of nomadic Gujjar goat-herders and promoted "further marginalization" and intensified existing social inequalities." So much for the hype about tree planting empowering communities and rural women.



How to plant a Zillion Trees: Bombs away!

It is also worth noting that exactly HOW to plant trillions of trees is also an issue. Bizarre methodologies for massive tree planting tend to be based not on healing Nature, but on war. For example, proposals include *blitzkriegs* against Mother Earth such as retrofitting old military planes to "tree bomb," "seed-bomb" or "aerial bombard." The World Economic Forum proposes using "seed-firing drones," which sound like robotic summary executions from the *War of the Worlds*. Although they have been



Rendering of a Tree-Bomb xplanes.tumblr.com

around for over five years and are intent on recycling death machines, none of these harebrained, bellicose schemes have panned out.

Genetically Modified Trees for the Planet Grab and to "Colonize Other Planets"

Yet another driver of the Planet Grab, which intersects with "Tree-Bombs," REDD+ and the

Trillion Tree Campaign are genetically modified trees, also known as genetically engineered (GE) trees or "Frankenstein Trees." According to the STOP Genetically Engineered Trees Campaign, "the tree biotechnology industry and its allies in academia are cynically capitalizing on the climate crisis to promote their genetically engineered (GE) trees as a climate 'solution,' arguing that their GE trees will sequester 'more carbon.'"dlxxii In the 2021 Statement Genetically Engineered Trees – No Solution to Climate Change, an international coalition clarifies that "Genetically engineered trees are not a climate solution. They are a dangerous distraction, and a threat to forests and communities that will worsen the climate crisis rather than fix it."dlxxiii



María Isabel Curihuentro Llancaleo

Photo: Orin Langelle

Genetically Engineered Frankenstein Trees take root

Nonetheless, open air field trials with genetically engineered trees are already happening in the United States' Southeast, dixxiv Israel, Brazildixxv and China. dixxvi For example, the start-up Living Carbon is manufacturing genetically engineered poplar trees dixxviii with altered photosynthesis that supposedly grow faster than normal trees dixxviii and absorb more carbon dioxide. Eager to profit from what it calls "the launch window for large-scale carbon removal solutions," dixxx Living Carbon sells carbon offsets including from genetically engineered trees planted in coal mine reclamation areas in the Appalachian Mountains. Just what we need! Frankenstein trees to greenwash coal's responsibility for global warming, and the devastation of mountaintop removal! Planting GE trees around old coal mines for carbon credits vividly illustrates the



intersection of fossil fuels, greenwash, carbon colonialism and dangerous, transgenic mad scientist experiments.



No Frankenstein Trees! No GE Trees!
Protest at UN climate summit
Photo: Orin Langelle

Carbon Colonialism on Mars?

According to the Global Justice Ecology Project, "GE trees are already planted in other areas as an experiment, but locations and details about the technologies used are often hidden as 'Confidential Business Information.' These GE tree experiments also appear to be connected, at least in their objectives, to the 'Trillion Trees Campaign.' The company 'Living Carbon' hopes to replace all of the tree plantations around the world with their fast-growing genetically engineered poplars in the name of saving the planet."dlxxxii Living Carbon claims that the company has secured "3000 acres of private land... across the [U.S.] Southeast and Appalachia" and its goal is to plant "about a million acres" for offsets. dlxxxiii Apart from carbon colonialism with genetically engineered trees here on Earth, Living Carbon hopes to "develop GE trees that can be used to colonize other planets."dlxxxiv

Another biotech firm that claims GE trees are a climate change solution is the Israeli FuturaGene, which "says its modified eucalyptus trees can displace the fossil fuel industry." FuturaGene is marketing these GE trees to timber companies and others as carbon offsets. FuturaGene's CEO Stanley Hirsch claims the gene-altering technique is an industrial "game-changer" and integral to the UN's vision of a future "global Green Economy," capitalism's next chapter based on privatizing and perverting Nature.

Many people are familiar with the dangers of GMO Bt corn, dixxxix whose pesticide-laced pollen kills monarch butterflies. dxc But few people know that genetically engineered trees' pollen could "cross with native trees, irrevocably changing forest ecosystems." Trees can take up to 100 years to mature and their pollen can travel "up to 1,800 miles," dxcii so the risk of GE contamination is high and the long-term impacts unknown, but potentially globally devastating.

REDD with Genetically Engineered Trees

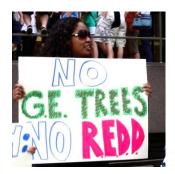
The 2003 UN climate summit in Milan adopted a decision that allows for genetically-modified organisms for reforestation and afforestation, which means that GE trees can be used for carbon offsets and REDD. dxciii FuturaGene is a subsidiary of the Brazilian plantations giant Suzano, dxciv



which, in turn, is a client of the Brazilian company Biofilica Ambipar Environment, dxcv which does REDD+ in the Amazon. dxcvi According to Anne Petermann, Executive Director of the *Stop Genetically Engineered Trees Campaign*, in this exceedingly twisted system, oxymoronic ironies abound. The idea that the Biofilica Ambipar Environment REDD initiative, which states as its goal the 'conservation of the native forest'dxcvii in Brazil, has the



Suzano timber corporation as a partner, is one more of the disgusting yet unsurprising ironies of REDD. Suzano has received permission from the Brazilian government to commercialize plantations of non-native eucalyptus trees that have been genetically engineered to tolerate



Jihan GearonFierce and beautiful as usual. *Photo: Orin Langelle*

heavy spraying with the toxic herbicide glyphosate, which the World Health Organization has linked to cancer. Suzano plans to convert native forest land and other biodiverse ecosystems in Brazil, including in the Amazon region, into these GE eucalyptus monoculture plantations that may be saturated with endless applications of this toxic herbicide, dry up ground and surface water, destroy biodiversity, deplete the soil, exacerbate drought conditions and displace local communities."dxcviii This convergence of the plantation industry, GE trees and REDD+ and its adverse impacts are relevant to the airline industry's plan to offsets its emissions.

Offsetting Airline Emissions: Evictions, Burning Homes and Logging



Source: New Internationalist

Burning jet fuel accounts for over 2% percent of global greenhouse gas emissions, dxcix which are conveniently left out of the UN Paris Agreement. But not to worry, airlines such as British Airways, Delta Air Lines, Air France, United Airlines, Iberia and Qantas increasingly offer air travelers the chance to purchase carbon credits to fly "carbon neutral" and guilt-free by offsetting flights. dc In fact, some airlines even offer nifty calculators to figure out how many carbon credits you should buy before you fly.

Delta, for example, urges you to "soar sustainably" and "travel carbon neutral with new options via Delta Air Lines' carbon calculator." Delta boasts that each "new offset project option has verified emissions reduction impacts that align with and advance United Nations Sustainable Development Goals." However, Delta's first offset project option, the Southern Cardamom REDD+ Project in Cambodia, has resulted in fortress conservation with highly armed guards, abuse of Indigenous Peoples and local farmers, "evictions, violence, and burning peoples'



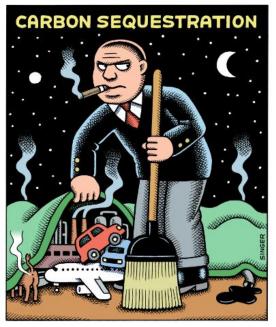
homes."dciii Similarly, Delta's second offset project option, the Kasigau Corridor REDD+ Project in Kenya, has resulted in evictions, violence, burning homes of the Waduruma ethnic group^{dciv} and has entrenched "a long process of dispossession of marginalized people," reinforced "inequality," "past injustices," and compounded colonialism. dcv Rather than soaring sustainably, these Delta's offset projects sound like carbon colonialist crash landings.

Other bogus offsets for airline emissions include easyJet's carbon credits, which were "generated by logging" the Peruvian Amazon. dcvi In another case of "phantom credits," Air France and the International Air Transport Association (IATA) buy carbon credits from the Ecomapuá Amazon REDD project in Brazil, denounced for selling "illegal" carbon offsets from land the carbon trader does not own. dcvii



Airline offsets: Get out of hell free cards

Illustration: Jonathan McHugh



Andy Singer

No wonder that experts warn that "carbon offsets" used by major airlines [are] based on [a] flawed system,"dcviii whereby "top airlines' promises to offset flights rely on 'phantom credits." In the Financial Times, Camilla Cavendish writes that the "carbon offset gold rush is distracting us from climate change" and that airline offsets are "get out of hell free" cards, similar to "21st-century papal indulgences."dcix Even the airline execs admit that carbon offsets are hogwash. "United Airlines' own CEO, Scott Kirby, has called offsetting 'a fig leaf for a CEO to... pretend that they've done the right thing for sustainability when they haven't made one bit of difference in the real world." A 2022 report, which assessed every climate target set by the aviation industry since 2000, found that "nearly

all had been missed, revised or quietly ignored."dcx According to *Policy Options*, "carbon offsets are no fix for aviation's climate problem,"dcxi but that does not mean that they won't end up being part of the Planet Grab in the name of saving the climate.



Where?

An indication of where offsetting for aviation emissions may happen when scaled-up can be gleaned from which countries are being trained to offset the airline industry's emissions. Unsurprisingly, and in keeping with the colonialist dynamic of offsetting in general, the countries slated for offsetting the aviation industry tend to be the less developed and less wealthy countries of the Global South. The United Nations' International Civil Aviation Organization has a program called CORSIA, which stands for Carbon Offsetting and Reduction Scheme for International Aviation. Under Assistance, Capacity-building and Training on CORSIA (ACT-CORSIA), polluting Northern countries train countries in the Global South to offset airline emissions. The list of the 16 trainer states and 118 student states engaged in CORSIA "Buddy Partnerships" for the 3rd Phase (2020 to 2021)dcxii reads like a neocolonial wish list. The training program includes some of Brazil's and South Africa's South-South colonialism dynamics, as well as Nigeria and Kenya - beachheads for REDD, mind you, - training other African countries to use their land to offset your next vacation to the Bahamas.



Neocolonial Wish List?
States training the Global South
to Offset Aviation Emissions

Source: United Nations ICAO. ACT-CORSIA

How much land?

The International Civil Aviation Organization reports that airline emissions for 2020 were 265,239,198 tonnes/year. dexiii What follows is an attempt to calculate how much land per year the airline industry might need to supposedly offset its emissions and assuage flyers' bad consciences. First, one needs to find some indication of how much carbon dioxide a forest might absorb per acre. This is one of many variables that are almost impossible to determine because carbon sequestration is not permanent and depends on the type of trees, weather, temperature, humidity, soil, social situation, the health of the ecosystem, *etc.*, which are always changing. In addition, there are no universally agreed upon and definitively proven methodologies for calculating forest carbon offsets. Nonetheless, the following hypothetical conjecture is offered for consideration.





Source: Biofuelwatch

According to Timothy J. Fahey, professor of ecology in the Department of Natural Resources at Cornell University, "An approximate value for a 50-year-old oak forest would be 30,000 pounds of carbon dioxide sequestered per acre." There are 2000 pounds per ton, so 15 tons of carbon dioxide sequestered per acre of oak forest. If the 265,239,198 tonnes of the airline industry's emissions per year is divided by 15 tons/acre, the result is 17,682,613.2 acres

a year to offset 2020 airline emissions. These 17,682,613.2 acres is the equivalent of 27629.0828125 square miles, which is about the size of Ireland. dcxv So, hypothetically, the airline industry could require land the size of Ireland each year to supposedly offset its emissions. However, in another vain attempt at greenwashing its pollution, the airline industry may need even more land to grow trees and crops for biofuels to mix with jet fuel.

Biofuels to Greenwash Airlines

According to the World Rainforest Movement, "despite the fact that REDD has been proven not to be a real solution to climate change, the Council of the International Civil Aviation Organization (ICAO) is moving forward [not only] with plans to allow airlines to mitigate their emissions through carbon offset projects," but also to use biofuels "based on industrial monocultures, which wreak havoc on forests and their inhabitants in the Global South. Organizations around the world are



Photo: Greenpeace/Lorraine Turci

calling on the ICAO to abandon its mitigation plans with false and destructive solutions, and to start reducing air traffic."dcxvi Biofuels for the aviation industry has various names including "Sustainable Aviation Fuel," "green fuel" and aviation biofuels.

Biofuel or Bio-FOOLED?

Biofuelwatch has been at the forefront of urging the world to "resist the siren call of aviation biofuels." Biofuelwatch has also shown that "aviation biofuels made from wastes and residues cannot be scaled up" and that "large-scale biofuel use for aircraft would have to rely on palm oil," an infamous driver of deforestation. According to Friends of the Earth-UK, biofuel production also results in land grabs, which dispossess Indigenous Peoples and "some of the world's poorest peoples." Just how much land is required for biofuel production for the aviation industry and other purposes?

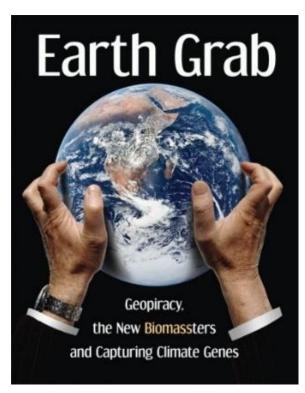


How much land?

In the global study on *Land Availability for Biofuel Production,* environmental engineer Dr. Ximing Cai and his team calculate that as much as 5,447,901,457 or 5.4 billion square miles - more than the United States and India combined - could be used for biofuel production. As is the case with REDD and tree planting, the African continent is eyed as ideal for land grabs for biofuels. According to the study, "Africa may have more than one-third, and Africa and Brazil, together, may have more than half of the total land available for biofuel production."

According to Gary Graham Hughes of Biofuelwatch, "language about 'marginal land' in Africa and elsewhere being planted with crops for biofuels is classic land grabber rhetoric, and pretends that those 'marginal' lands are not already occupied. Biofuels are certainly a land grab motor as well as a motor of deforestation."dcxxii

Biofuels may also be a motor for thirst and starvation. The Guardian reports that "producing one litre of biofuels... requires 2,500 litres of water."dcxxiii Furthermore, according to the former UN Special Rapporteur on the Right to Food, Jean Ziegler, biofuels increase world hunger, cause environmental devastation and "burning food crops to produce biofuels is a crime against humanity."dcxxiv Lastly, biofuels are a false solution to climate change. The Community Energy reSource factsheet Biofuels: Burning Food? notes that "biofuels from non-food sources such as algae or cellulosic grasses have not yet proved out in practice... [A]dding limited supplies of food crop biofuel to petroleum... could lead to a dead end in our path to climate stabilization."dcxxv Scientific American concurs biofuels do "little to slow global warming—and often make it worse."dcxxvi



Source: ETC Group

Similarly, a 2022 study on the *Environmental Outcomes of the US Renewable Fuel Standard* determined that the biofuel ethanol is worse for the climate than gasoline. dcxxvii

Over a decade ago, in *Earth Grab: Geopiracy, the New Biomass-ters and Capturing Climate Genes*, decayill ETC Group warned about an "Earth Grab" for geoengineering, biomass, climate-ready crops and biofuel production. Since the book's publication, the Earth Grab looms ever closer.





Protesting the Planet Grab and Whale Offsets

UN climate summit, 2021

Packaging the Planet Grab as Saving the Whales

Part of the PR challenges of marketing carbon colonialism is tricking the peoples of the world into believing that it is beneficial and necessary. For this reason, carbon colonialism has been carefully packaged as the only way to save the climate and forests. To confuse communities and hide the Planet Grab agenda, carbon offsets have been incessantly rebranded and their scope gradually expanded. Carbon offsets now include all ecosystems including oceans. According to the UN Secretary-General's Special Envoy for the Ocean, Peter Thomson, "for the UN Biodiversity Conference in Kunming, China, this year, there is a proposal, which some 84 countries are supporting, for a '30 by 30' target. In other words, 30 per cent of the planet protected by 2030, which, of course, includes parts of the ocean."dcxxix In this regard, the 2022 UN Ocean Conference took significant steps towards using 30% of oceans for marine protected areas and treating the world's oceans as Blue Carbon — carbon offsets.



Source: World Forum of Fisher Peoples

Living beings of the oceans such as whales are also targeted to be used for offsets. You can read about how the International Monetary Fund wants to use whales for carbon offsets based on REDD+, which may speed up the extinction of whales, in the chapter entitled *Save the Whales... from the carbon market!*.dcxxx Not only are whales and their habitat being turned into offsets, but they are also being used as a posterchild for carbon colonialism.dcxxxi

Using charismatic species like whales and elephants to market carbon trading may be a stroke of supposed PR genius, but we are not fooled. At the 2021 UN climate summit in Glasgow, Indigenous Peoples and civil society protested the Planet Grab's perverse privatization and commodification of Life, the Sky and sacred whales.



Carbon Colonialism: Grabbing Land and Grabbing Truth

In the Glasgow train stations used to access the 2021 UN Climate summit, delegates were bombarded by a Scotland Railway Net Zero ad campaign featuring whales, elephants, carbon offsets, carbon equivalencies and the emergence of carbon as the new global currency. Scotland Railway's elephant ad inferred that carbon is the new money, as opposed to the "old money" of ivory, gold and whale oil. dcxxxiii In the media and entertainment, there was a flurry of articles and documentaries about whales - including in the Scottish newspaper The Times, and even in Disney's Secrets of Whales, which coyly say things like "whales are good for the climate" or "whales are the solution to climate change," without acknowledging that they are part of the PR campaign to commodify whales and elephants for the carbon market. It seems that the public is being primed for accepting the Planet Grab, the privatization of whales and all of Life by pulling on our



Scotland Railway ad during 2021 UN climate summit.

heart strings since everyone loves whales and no one is going to say "no" to saving them. There is probably a special term in advertising or psychology for this kind of priming - where you introduce the topic or float an idea without revealing the full intention and then subsequently lay it all out in other ads or just in life in itself. The pulling on the heartstrings is as much the pump as it is the prime. The powers of persuasion seem central to the entire message. The actual carbon accounting is less important, whether it be for carbon or biodiversity offsets or some ambiguous "climate footprint" - even as they shapeshift, they are tethered to the financialization of Nature beginning to permeate everything - with the living Earth not just a physical commodity to exploit as a resource but as an asset class to monetize in whatever form happens to be convenient for the predatory economic system. Priming the pump is combined with Orwellian doublespeak and gaslighting. Regardless of the strategy's name and twisted sophistication, we must not let it succeed. The hunter-gatherer Ogiek People of Kenya, who have been repeatedly evicted dcxxxiii from the Mau Forest for CONservation and REDD tree plantations, dcxxxiv have a saying that "truth is more powerful than weapons," but what is true is also up for grabs.

Grab Land, Grab Wildlife: REDD + Wildlife Premium Market

Whales and elephants aren't the only living beings in danger of being used to pretend to offset more pollution and destruction. Eric Dinerstein, lead proponent of the Global Deal for Nature, who now works with mining-friendly RESOLVE, was also the lead author of *Wildlife Premium Market + REDD: Creating a financial incentive for conservation and recovery of endangered*



species and habitats.dcxxxv The Wildlife Premium Market + REDD combines offsets from forest ecosystems, which often span several countries, with biodiversity offsets from commodifyingdcxxxvi the forests' premium wildlife: charismatic, endangered, iconic species like tigers, elephants, jaguars, macaws and gorillas.dcxxxvii This kind of



Source: Green Finance Observatory

bundling of offsets has also been called Gourmet REDD, dcxxxviii and is based on turning all of Life into what the oil industry calls "natural capital." The gist is that the REDD offset is like a cracker. The REDD cracker is heaped with additional gourmet biodiversity offsets, based on species that consumers adore, payment for ecosystem services like the hydrological cycle, and supposed rural women's empowerment and poverty alleviation, which often translates into being a carbon-measuring peon on your own land. dcxl

The Planet Grab for Natural Capital Colonialism

The architects and money bags of the Green Economy jumped at the chance to diversify and bundle revenue streams from combining REDD with "natural capital." In 2010, speaking on "New Pathways and Partnerships to Advance REDD+," the UN Secretary-General Ban Ki-Moon, along with the President of the World Bank Robert Zoellick, the Executive Secretary of the UN Environment Program Achim Steiner and the CEO of Conservation International Peter Seligmann, launched the Wildlife Premium Market Initiative. dcxli According to the World Bank, the land slated for the Wildlife Premium Market Initiative covers "most of the remaining tropical forests and the most important areas for biodiversity." dcxlii Quite a chunk of the planet.



What would the ancestors do?

In addition to the Wildlife Premium Market, the roles of keystone species such as sacred buffalo as "the latest in carbon capture tech," dcxliii and wolves as "ecosystem engineers" dcxliv are also being turned into carbon offsets. An excellent example of how commodifying and "carbonizing" wildlife compounds offsets as well as compounds colonialisms for the Planet Grab is Lion Carbon.

Lion Carbon + REDD: Compounded Colonialisms' Compounded Offsets

The for-profit^{dcxlv} carbon trader BioCarbon Partners in partnership with the NGO Lion Landscapes sells "innovative premium carbon offset[s]" called Lion Carbon. Lion Carbon offsets are sold "to businesses," including British Petroleum, dcxlviii infamous for its "legacy of apartheid, pollution and exploitation," and Italian oil firm Eni, dcl which drills, pollutes and exacerbates global warming in Africa. Like the Wildlife Premium Market Initiative + REDD, BioCarbon



Partners uses the "REDD+ Model for Lion Carbon." The long-term goal of Lion Carbon is to financialize all of Nature by "turn[ing] benefits from lions into financial value" and to sell all the compounded offsets and ecosystem services in lion habitat from "ten million hectares of forest" roughly the size of Iceland to build the "New Lion Economy."

According to the Lion Recovery Fund, "lion-branded carbon credits" are part of "unlocking carbon finance for protected areas." Funded initially by \$14 million from the United States agency USAID, delviii Lion Carbon is also funded and/or sponsored by the "Lion Recovery Fund, the Darwin Initiative, National Geographic's Big Cat Initiative, [*The Lion King's* delix producer] Disney," Eni, Paramount Business Jets, delxi The Nature Conservancy and a long list of zoos in the Global North, delxii who export and jail lions.

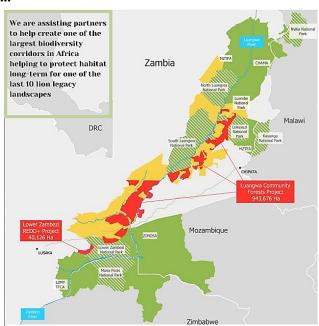
Flaunted as the solution to lion recovery, Lion Carbon really is a false solution to climate change, which endangers lion's survival by allowing polluters to pollute more and make global warming worse. Of all the adverse impacts of climate change, lions are particularly susceptible to drought, which disrupts their reproductive cycle^{dclxiii} and, therefore, significantly hinders their chances of birthing future generations. Lion Carbon does not just compound offsets and lessen the probability of lions' surviving, it also compounds colonialisms.

Compounded Colonialisms

How to colonize Africa, let me count the ways...

The carbon colonialists are taking off the gloves. No longer content to do wee little pilot projects, REDD+ projects are increasingly multinational, linking protected areas and the choicest morsels of Nature across various nations, and redrawing the geopolitical map to create carbon countries, often with their own forms of governance and heavily armed security forces.

In one fell swoop, REDD + Lion Carbon offsets are carbon colonizing a vast swathe of land and electronic collaring^{dclxiv} lions like convicts in four countries: Mozambique, Malawi, Zambia and Zimbabwe. The multinational



Source: Lion Landscapes

offset area spans "the vital Luangwa Valley ecosystem linking South Luangwa, Luambe, Lukusuzi and Lower Zambezi National Parks." The Luangwa Valley ecosystem is "one of the last wildlife



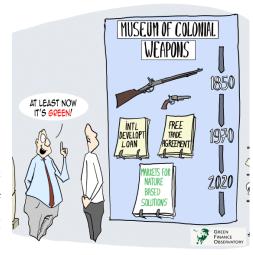
habitats in Africa,"dclxvii home to Africa's "most stable elephant populations,"dclxviii which may point to the eventual use of Elephant Carbon, as is already the case in Kenya.dclxviii The multinational offset area is also a "key component of the Luangwa-Zambezi hydrological system,"dclxix which underscores that REDD land grabs are also water grabs.dclxx Lion Landscapes reports that "we are working to create one of the largest biodiversity corridors in Africa."dclxxii The hope of Lion Carbon traders is that eventually "ten million hectares of forest"dclxxiii - roughly the size of Icelanddclxxiiii - will become the Lion Carbon Kingdom.

Hypocrisy hits new heights

And just in case you harbored any hope that REDD + Lion Carbon might actually stop extractive industries from pillaging prime lion habitat, take note that, in 2021, Mwembeshi Resources Limited's large-scale open pit Kangaluwi copper mine on the Zambezi River was approved in the Lower Zambesi REDD+ project area, delaxiv a key piece of the Lion Carbon Kingdom. The controversial mine "threatens Africa's most important river basin," "the livelihoods of over 47 million people"delaxv and, of course, lions. Even the Lion Recovery Fund, one of the key funders

of Lion Carbon, dclxxvi admits that "mining in wildlife areas" dclxxviii is a "threat to lions." dclxxviii Contrary to what its name suggests, the Lion Recovery Fund is funding Lion Carbon, which allows for mining, that definitely does not help lions recover.

In summary, Lion Landscapes' multinational, carbon colonialism overlays other forms of colonialism such as "landscape-level biodiversity" CONservation, dclxxx historic colonialism and extractivism, both in terms of selling licenses to pollute to oil companies as well as using some of the land for open pit mining.



Source: Green Finance Observatory





World Oil: "Eni to save African forests" ...and lions?

In 2019, the Italian oil company Eni got slammed by an international alliance of feisty anticolonialists and environmentalists for proposing to grab a chunk of Africa the size of the State of South Carolina to plant monoculture tree plantations so it could pretend it could reach net zero emissions by 2030. dclxxxi Unperturbed, in 2020, Eni swiftly pivoted and is now trying to repackage its climate lies with lions. According to *World Oil*, "Eni [is poised] to offset CO₂ emissions by saving African forests"dclxxxii with REDD+ in Southern Africa, where Lion Carbon is being implemented. According to Eni, the company signed an agreement with BioCarbon Partners "to enter as an active member in the governance of the Luangwa Community Forests Project (LCFP), the largest REDD+ project in the world by number of beneficiaries, and the largest in Africa by hectarage (944,000 ha)"dclxxxiii and part of Lion Carbon. dclxxxiv This is lamentable in multiple ways.

First of all, Eni's carbon colonialism in Southern Africa goes hand-in-hand with the colonialism of its resource extraction in Africa. dclxxxv Land grabbing and forcibly removing thousands of Mozambicans from their homes dclxxxvi has occurred in preparation for drilling on Mozambique's

beautiful, sparkling, turquoise coast by oil and gas companies including Eni. dclxxxvii Not one to miss out on a money-making opportunity resulting from war, Eni plans to increase drilling in Algeria and Egypt, where it is the largest oil and gas producer, to supply gas to Europe and help wean it off Russian exports. dclxxxviii Increasing Eni's drilling in Egypt is particularly tacky, since Egypt, the host of the 2022 UN climate change summit, dclxxxix is already suffering global warming-induced drought and rising seas. dcxc



Activist demand that Egypt's 60,000 political prisoners be freed before the UN climate summit

Source: FreedomForAlaa/Twitter

Coup d'etat of Nature

In summary, carbon colonialism not only is a carbon copy of classic colonialism, it compounds colonialisms. REDD + Lion Carbon allows a European oil company not only to greenwash its global emissions, and increase its oil and gas exploitation in Africa^{dexci} with a huge multinational land grab in Africa - again, the size of Iceland - but also to become "an active member in the governance" of the biggest example of carbon colonialism in Africa. This is no mere false solution to climate change, which will speed up deadly temperature rises in Africa and the extinction of peoples and lions. No. Nor is this a mere piece of the Planet Grab. This is a POWER GRAB. This is the *coup d'etat* of Nature.



POWER!

King of the Planet Grab

Perhaps we should be grateful for this glimpse of who may end up ruling the Lion Carbon Kingdom because it may shed light on who wants to be King of the Planet Grab. Carbon trading has always been the fossil fuel civilization's baby. So, it should come as no surprise that the oil and gas industry are positioning themselves not only to get the land, oceans and Life of the Planet Grab, but also the power. Corporations like Eni may use REDD to try and redraw the geopolitical map and reshape global governance. But who will wear the crown?

A candidate for the King of the Planet Grab: The WTO

In 2013, as the protests against the resurrection of the WTO in Bali raged, Tony Clarke of the Polaris Institute astutely noted: "There is only one system capable of managing a global carbon market and that's the World Trade Organization." After all, carbon trading is, as its name

suggests, about trade, the WTO's purview. Interestingly, the former Executive Secretary of the climate change convention, Michael Zammit Cutajar, admitted that the United Nations Framework Convention on Climate Change (UNFCCC) was essentially creating a WTO for trading carbon: "Establishing a robust global regime for addressing climate change is... comparable to the creation of the international trade regime under the World Trade Organization." dexciii



Convergence of the Global Climate, Trade and Finance Regimes

Cutajar's frank acknowledgement of the similarity between the UNFCCC and the WTO points to the convergence of not only the global climate regime with the global trade regime but also of their convergence with the global financial regime. Another way of looking at it is that the global climate regime *aka* carbon markets, whose carbon may be "the biggest commodity in the world" and could be ten times bigger than crude, dcxcv is merging with the global financial regime *aka* Wall Street and the banks, and will eventually merge with the global trade regime – the WTO.

At the center of the convergence of the global climate, trade and finance regimes sits REDD. As the pillar of the Green Economy, dexcvi REDD is the carryall bag of natural capital, which is why lion carbon and whale offsets are based on REDD+. The No REDD in Africa Network's *Financialization goes berserk* outlines how REDD is on track to offset and add another dimension of financialization to both the global supply chain and the energy matrix. dexcvii The emerging scenario is that REDD provides the land, oceans and natural capital, the UNFCCC cobbles together the global carbon market based on the REDD Planet Grab, dexcviii which Wall Street runs, financializes, speculates and profits from, and the WTO governs and adjudicates.



REDD Supply and Demand

As the climate crisis intensifies and the legal frameworks for carbon trading become stricter, carbon offsetting could become mandatory. Mandatory offsetting could be a condition for loans from the World Bank and other international financial institutions and a clause in future so-called Free Trade Agreements. Furthermore, mandatory offsetting and REDD could serve to guarantee the demand for carbon credits, raise the price and stabilize carbon markets somewhat, if only temporarily. It could also, of course, create huge pressure to guarantee the supply of carbon credits and, hence, intensify REDD as a driver of land grabs in Africa and the rest of the world.

The WTO and mandatory participation in the global carbon market

It is plausible that, under the WTO, governments could invoke Article 20 of the General Agreement on Tariffs and Trade (GATT) on the adoption and enforcement of measures "necessary for the protection of human, animal, or plant life or health," to impose tariffs or prevent imports from countries where climate legislation is not in place. On the surface, this sounds positive for the environment. However, if the climate legislation in question is cap-and-trade and offsets, then the WTO could potentially use Article 20 of the GATT to enforce mandatory offsetting and REDD+ - a kind of carbon protectionism, if you will.

Even more worrisome is that the WTO might invoke this article to force countries to participate in the global carbon market as well as to concede their national territories for offsetting projects and carbon colonialism. The WTO could use Article 20 to railroad every economy into participating in the carbon market and force all countries to do REDD and open their forests, farmland and water ecosystems to the REDD Planet Grab and/or Half Earth, "the largest land relocation and governance proposal in history." dcc



Seattle Municipal Archive

Or conversely, the right to trade protected by the WTO dispute mechanism could be interpreted to include the right to pollute, which could include the right to offset which, in turn, could include the right to legally and militarily grab land for REDD. Once the land is grabbed for offsets what could follow is the control and privatization of the water and the extraction of natural resources including timber, fossil fuels and mining as well as biodiversity patents on life. The successive generation of rights and legal prerogatives

and obligations to participate in free trade, pollution trading, offsets and the corresponding land grabs might look something like this:

Right to Trade Right to Pollute Right to Offset Right to Grab Land Right to Commit Genocide?



"Do not go gently into that good night" dcci

Fortunately, a billion people including Indigenous Peoples, local communities, peasants and Africans are not just going to roll over and obligingly give up their homes and territories for the Planet Grab. They did not do so 500 years ago and they will not do so now.

In my thoughts I have seen rings of smoke through the trees
And the voices of those who stand looking
That's you

And it's whispered that soon, if we all call the tune
Then the piper will lead us to reason
And a new day will dawn for those who stand long
And the forests will echo with laughter
Remember laughter?

...Yes, there are two paths you can go by, but in the long run There's still time to change the road you're on^{dccii}



Indigenous Peoples protest the Planet Grab.



Deep Gratitude to the Swift Foundation, CLIMA Fund, Global Justice Ecology Project, anonymous, Anne Petermann, David Hill, Panganga Pungowiyi, Evon Peter, Larry Lohmann, Pam Tau Lee, Orin Langelle, Ayşe Gürsöz, Indigenous Environmental Network and the No REDD in Africa Network. Opinions and views expressed are solely my own.

www.norwatch.no/download-document/19- co2lonialism.html http://www.fivh.no/norwatch/english/Reports/uganda.htm

https://qz.com/1934403/bezos-earth-fund-makes-him-the-biggest-climate-activist-backer/

New Republic. Kate Aronoff. "Jeff Bezos and the Golden Age of Climate Hypocrisy". October 15, 2020.

https://newrepublic.com/article/159795/jeff-bezos-golden-age-climate-hypocrisy

Amazon has pledged to offset carbon emissions—while donating generously to Republicans who are bent on letting the planet burn.

See also the chapter on 'Hypocrisy Prime: Bezo's Destroy the Earth Fund" in the forthcoming CLIMATE OPIUM and the Planet Grab.

https://www.half-earthproject.org/and-also-not-either-or-the-need-to-restore-nature-and-cut-emissions/

https://www.oneearth.org/new-campaign-to-protect-80-of-the-amazonia-by-

2025/#:~:text=One%20Earth%20is%20proud%20to,the%20planetary%20crisis%20with%20transformative

IUCN. <u>129 - Avoiding the point of no return in the Amazon protecting 80% by 2025 | IUCN World Conservation Congress 2020</u> (iucncongress 2020.org) October 4, 2021.

https://www.iucncongress2020.org/motion/101

One Earth. Kurk Burkart. "Motion IOI passes at IUCN, calls for protecting 50% of Earth's lands and seas". October 25, 2021.

https://www.oneearth.org/motion-101-passes-at-iucn-calls-for-protecting-50-of-earths-lands-and-seas/

The America the Beautiful initiative could redefine US conservation as we know it". May 7, 2021. https://www.vox.com/2021/5/7/22423139/biden-30-by-30-conservation-initiative-historic

The term Carbon Colonialism may have been first coined by Harald Eraker in his report "Carbon Colonialism: Norwegian Tree Plantations, Carbon Credits and Land Conflicts in Uganda". April 2000.

[&]quot;This may lead to a new form of colonialism," -Trygve Refsdal, advisor to the Ugandan forest authorities, quoted by Harald Eraker.

[&]quot;The post-2020 Global Biodiversity Framework by 2050

[&]quot;Target 2. By 2030, protect and conserve through well connected and effective system of protected areas and other effective area-based conservation measures at least 30 per cent of the planet with the focus on areas particularly important for biodiversity." [Emphasis added.] https://www.cbd.int/doc/c/3064/749a/0f65ac7f9def86707f4eaefa/post2020-prep-02-01-en.pdf

iii Half-Earth Project. https://www.half-earthproject.org/

iv Nature Sustainability. Schleicher, J., Zaehringer, J.G., Fastré, G. et al. "Protecting half of the planet could directly affect over one billion people." Nat Sustain 2, 1094–1096 (2019). https://doi.org/10.1038/s41893-019-0423-y "In light of continuing global biodiversity loss, one ambitious proposal has gained considerable traction amongst conservationists: the goal to protect half the Earth. Our analysis suggests that at least one billion people live in places that would be protected if the Half Earth proposal were implemented within all ecoregions."

Quartz. Tim McDonnel. "Jeff Bezos is now the biggest climate activism donor—and that's a problem", November 17, 2020.

vi Nature Needs Half. What we do. Leaders believe in half. https://natureneedshalf.org/what-we-do/

vii Half-Earth Project. E.O. Wilson Biodiversity Foundation Joins Global Environmental Community in Resolution to Tackle Climate Change and Biodiversity Loss. May 4, 2020.

viii Edward O. Wilson. "Half-Earth: Our planet's fight for life". 2016. https://eowilsonfoundation.org/half-earth-our-planet-s-fight-for-life/

ix One Earth. https://www.oneearth.org/team/

^{*} One Earth. Edith Espeio. "New campaign to protect 80% of the Amazonia by 2025". October 25, 2021.

xi Global Deal for Nature. https://www.globaldealfornature.org/petition/en/

xii See this chapter.

xiii IUCN. Motion 101 "Setting area-based conservation targets based on what nature and humans need to thrive". September 22, 2021.

xiv IUCN. <u>129</u> - Avoiding the point of no return in the Amazon protecting 80% by 2025 | IUCN World Conservation Congress 2020 (iucncongress 2020.org) October 4, 2021.

xv Convention on Biological Diversity. A New Global Framework for Managing Nature through 2030: First Detailed Draft Agreement Debuts. June 6, 2021. https://www.cbd.int/article/draft-l-global-biodiversity-framework

xvi Vox. Benji Jones. "The Biden administration has a game-changing approach to nature conservation



xvii Helen O'Shea *et al.* "Biden Administration Lays Out 30x30 Vision to Conserve Nature". May 6, 2021. https://www.nrdc.org/experts/helen-oshea/biden-administration-lays-out-30x30-vision-conserve-nature

wiii Government of California. Office of Governor Gavin Newsom. "Governor Newsom Launches Innovative Strategies to Use California Land to Fight Climate Change, Conserve Biodiversity and Boost Climate Resilience".

 $\label{lem:constraint} \begin{tabular}{ll} \textbf{October 7, 2020.} & \underline{\textbf{https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-conserve-biodiversity-and-boost-climate-resilience/ \\ \end{tabular}$

xix UN-REDD. Our Impact. https://www.un-redd.org/about/our-impact

"UN-REDD partner countries host 70% of all tropical forests."

** UN-REDD. Regions and Countries. https://www.unredd.net/regions-and-countries/regions-and-countries-
https://www.unredd.net/regions-and-countries-
wttps://www.unredd.net/regions-and-countries-reg

xxi NASA. "Seeing Forests for the Trees and the Carbon: Mapping the World's Forests in Three Dimensions".

 $\frac{\text{https://earthobservatory.nasa.gov/features/ForestCarbon\#:} \sim \text{text=Forests\%20are\%20considered\%20one\%20of,} 50\%20 \text{percent\%20of\%20plant} \text{t\%20productivity.}$

xxii (In initial stage of implementation; does not include World Bank BioCarbon Fund)

xxiii World Bank Group. Forest Carbon Partnership Facility. Annual Report 2021. P. 15.

https://www.forestcarbonpartnership.org/system/files/documents/fcpf 2021 annual report websngl fnl 1 13 2022.pdf

xxiv World Bank Group. Forest Carbon Partnership Facility. Annual Report 2021. P. 15.

https://www.forestcarbonpartnership.org/system/files/documents/fcpf 2021 annual report websngl fnl 1 13 2022.pdf

xxv Governors Climate and Forest Taskforce. https://www.gcftf.org/

"Protecting forests, reducing emissions, and enhancing livelihoods across 1/3 of the world's tropical forests."

xxvi Governors' Climate and Forests Task Force. https://gcftf.org/about/ [Accessed July 20, 2018]

xxvii Oxfam. Nafkote Dabi and Aditi Sen. "Tightening the Net: Net zero climate targets – implications for land and food equity". August 3, 2021. https://policy-practice.oxfam.org/resources/tightening-the-net-zero-climate-targets-implications-for-land-and-food-equ-621205/
xxviii Ihid.

xxix Carbon Brief. Josh Gabbatiss. "Analysis: Shell says new Brazil-sized forest would be needed to meet 1.5C climate goal". February 12, 2021.

https://www.carbonbrief.org/analysis-shell-says-new-brazil-sized-forest-would-be-needed-to-meet-1-5c-climate-goal

xxx World Economic Forum. Oliver Cann. January 21, 2020. "Restoring the Earth: It.org Announced to Accelerate Nature Restoration to Tackle Climate and Biodiversity Crises". https://www.weforum.org/press/2020/01/restoring-the-earth-It-org-announced-to-accelerate-nature-restoration-to-tackle-climate-and-biodiversity-crises

xxxi Metro News. Jonathan Soll. *Can planting a trillion trees save our planet?*. March 10, 2020.

https://www.oregonmetro.gov/news/power-

trees#:~:text=One%20trillion%20trees%20would%20require,area%20of%20the%20United%20States

xxxii Bloomberg. March 22, 2021. <u>Russia Wants to Use a Forest Bigger Than India to Offset ...</u>

xxxiii See this chapter.

xxxiv Ximing Cai, Xiao Zhang and Dingbao Wang. "Land Availability for Biofuel Production". December 9, 2010

https://doi.org/10.1021/es103338e

https://pubs.acs.org/doi/10.1021/es103338e#

Ximing Cai et al calculate that as much as 5,447,901,457 or 5.4 billion square miles more than the United States and India combined.

xxxv Democracy Now!. Amy Goodman. "Commodifying Wildlife? World Bank Launches Market Scheme for Endangered Species". December 9, 2010. https://www.democracynow.org/2010/12/9/commodifying wildlife world bank launches market

xxxvi The Guardian. Karen McVeigh. "UN ocean treaty is 'once in a lifetime' chance to protect the high seas". March 10, 2022.

https://www.theguardian.com/environment/2022/mar/10/un-ocean-treaty-is-once-in-a-lifetime-chance-to-protect-the-high-seas

xxxvii International Monetary Fund. Ralph Chami et al. "Nature's Solution to Climate Change". Finance & Development. December 2019. Vol. 56, No. 4 https://www.imf.org/external/pubs/ft/fandd/2019/12/natures-solution-to-climate-change-chami.htm

Global Justice Ecology Project. Cassandra. Save the Whales... from the carbon market! 2021. https://globaljusticeecology.org/whale-offsets/

xxxix According to the American Declaration on the Rights of Indigenous Peoples, "Indigenous peoples have the right to own, use, develop and control the lands, territories and resources that they possess by reason of traditional ownership or other traditional occupation or use, as well as those which they have otherwise acquired." This "traditional ownership or other traditional occupation or use" is the basis of customary rights.

Organization of American States. American Declaration on the Rights of Indigenous Peoples. 2016.

https://www.oas.org/en/sare/documents/DecAmIND.pdf



- xl World Resources Institute. RELEASE: "First Interactive Global Map of Indigenous and Community Territories Will Help Secure Land Rights Worldwide and Boost Forest Conservation Efforts". November 10, 2015 https://www.wri.org/news/release-first-interactive-global-map-indigenous-and-community-territories-will-help-secure [Accessed January 12, 2022]
- wi World Resources Institute. "RELEASE: First Interactive Global Map of Indigenous and Community Territories Will Help Secure Land Rights Worldwide and Boost Forest Conservation Efforts". November 10, 2015 https://www.wri.org/news/release-first-interactive-global-map-indigenous-and-community-territories-will-help-secure (Accessed January 12, 2022)
- Forest Peoples Programme (FPP) and Indigenous Peoples Major Group for Sustainable Development (IPMG). 2018. "Central Roles of Indigenous Peoples and Local Communities in global commitments on biodiversity." p. 6. https://www.lndigenouspeoplessdg.org/index.php/english/all-resources/ipmg-position-papers-and-publications/ipmg-submission-interventions/95-the-central-roles-ofIndigenous-peoples-and-local-communities-in-achieving-global-commitments-on-biodiversity/file
- xiiii Forest Peoples Programme (FPP) and Indigenous Peoples Major Group for Sustainable Development (IPMG). 2018. "Central Roles of Indigenous Peoples and Local Communities in global commitments on biodiversity." https://www.lndigenouspeoplessdg.org/index.php/english/all-resources/ipmg-position-papers-and-publications/ipmg-submission-interventions/95-the-central-roles-ofIndigenous-peoples-and-local-communities-in-achieving-global-commitments-on-biodiversity/file
- xliv Landmark, https://www.landmarkmap.org/
- xiv FIU. Global Indigenous Forum. https://indigenous.fiu.edu/news/2015/who-are-indigenous-people/#:~:text=The%20United%20Nations%20estimates%20that.societies%20in%20which%20they%20live [Accessed January 17, 2022]
 xivi Science Advances. E. Dinerstein, A. R. Joshi, C. Vynne, A. T. L. Lee, et al. "A 'Global Safety Net' to reverse biodiversity loss and stabilize Earth's climate". September 4, 2020. https://www.science.org/doi/10.1126/sciadv.abb2824
- xivii WWF. Dr. Kanyinke Sena. African Commission Working Group on Indigenous Populations. "By fighting for their lands, Indigenous peoples are fighting to save the planet. Although they comprise less than 5% of the world population, Indigenous peoples protect 80% of the Earth's biodiversity in the forests, deserts, grasslands, and marine environments in which they have lived for centuries."

https://www.worldwildlife.org/stories/recognizing-indigenous-peoples-land-interests-is-critical-for-people-and-nature

- xiviii Proceedings of the National Academy of Sciences of the United States of America. L. J. Gorenflo, Suzanne Romaine, Russell A. Mittermeier, and Kristen Walker-Painemilla. "Co-occurrence linguistic and biological diversity in biodiversity hotspots and high biodiversity wilderness areas". May 22, 2012. https://doi.org/10.1073/pnas.1117511109 https://www.pnas.org/content/109/21/8032 [Accessed January 17, 2022]
- xlix United Nations Department of Public Information. Secretariat of the United Nations Permanent Forum on Indigenous Issues. The State of the World's Indigenous Peoples. January 2010. As cited in

The central roles of Technical policy brief for the HPLF on Sustainable Development Goal 15 Indigenous Peoples and Local Communities in achieving global commitments on biodiversity <a href="https://www.indigenouspeoples-sdg.org/index.php/english/all-resources/ipmg-position-papers-and-publications/ipmg-submission-interventions/95-the-central-roles-of-indigenous-peoples-and-local-communities-in-achieving-global-commitments-on-biodiversity/file

- Amnesty International. Indigenous Peoples. https://www.amnesty.org/en/what-we-do/indigenous-peoples/#:~:text=There%20are%20370%20million%20Indigenous,70%25%20%E2%80%93%20live%20in%20Asia. [Accessed January 17, 2022]

 Catherine M. Roach. Mother / Nature: Popular Culture and Environmental Ethics. P.30. University of Indiana Press. 2003.
- ii Nature Needs Half https://natureneedshalf.org/
- iii Half Earth Project. https://www.half-earthproject.org/
- liv One Earth. https://www.oneearth.org/our-mission/
- № RESOLVE. https://www.resolve.ngo/impact.htm
- Wi RESOLVE. https://www.resolve.ngo/ppa.htm

"RESOLVE was commissioned by the Electronics Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiative (GeSI) Extractives Workgroup in 2008-2009 to map the supply chain for the three metals used in electronics: tin (solder), tantalum (capacitors and deposition targets), and cobalt (batteries and magnetic recording media)."

https://www.resolve.ngo/site-eiscm/default.htm

https://www.resolve.ngg/site-voluntarymininginitiatives.htm

- Wii Nature Needs Half. What we do. Leaders believe in half. https://natureneedshalf.org/what-we-do/
- | Edward D. Wilson. "Half-Earth: Our planet's fight for life". 2016. https://eowilsonfoundation.org/half-earth-our-planet-s-fight-for-life/
- https://www.nytimes.com/2016/03/13/opinion/sunday/the-global-solution-to-extinction." March 12, 2016. https://www.nytimes.com/2016/03/13/opinion/sunday/the-global-solution-to-extinction.html
- x "What if we set aside half the planet for wild life?", https://whatifshow.com/what-if-we-set-aside-half-the-planet-for-wildlife/



United Nations Environment Programme. "New UNEP Report Unveils World on Track to Meet 2020 Target for Protected Areas on Land and Sea". November 13, 2014. http://www.unep.org/newscentre/Default.aspx?DocumentID=28126ArticleID=11070 /Accessed June 1, 20167

kii Cambridge University Press. Bram Büscher *et al.* "Half-Earth or Whole Earth? Radical ideas for conservation, and their implications". December 5, 2016. https://www.cambridge.org/core/journals/oryx/article/halfearth-or-whole-earth-radical-ideas-for-conservation-and-their-implications/C62CCE8DA34480A048468EE39DF2BD05

hational Geographic. Andrew Revkin. "E.D. Wilson at 90: The conservation legend shares dreams for the future". June 10, 2019.

https://www.nationalgeographic.com/environment/article/eo-wilson-conservation-legend-90-save-space-for-nature-save-planet

biv The Guardian, Robin McKie. "Half-Earth: our planet's fight for life by Edward O. Wilson: review", April, 11, 2026.

https://www.theguardian.com/books/2016/apr/11/half-earth-planets-fight-for-life-edward-o-wilson-review

Ex Climate and Capitalism. Brian Napoletano. "Half-Earth: A biodiversity 'solution' that solves nothing". October 2, 2018.

https://climateandcapitalism.com/2018/10/02/half-earth-a-biodiversity-solution-that-solves-nothing/

half-Earth Project. E.O. Wilson Biodiversity Foundation Joins Global Environmental Community in Resolution to Tackle Climate Change and Biodiversity Loss. May 4, 2020. https://www.half-earthproject.org/and-also-not-either-or-the-need-to-restore-nature-and-cut-emissions/

hvii Nature Sustainability. Jeffrey D. Sachs *et al.* "Six Transformations to achieve the Sustainable Development Goals" August 2019. DOI:10.1038/s41893-019-0352-9

https://www.researchgate.net/publication/335405891 Six Transformations to achieve the Sustainable Development Goals

Jeffrey D. Sachs. "Deep Decarbonization for the US". September 2, 2020.

https://www.jeffsachs.org/interviewsandmedia/bxxsfm4b3c8b9xxadaptblwtgwa9n8

Nature Sustainability. Jeffrey D. Sachs *et al.* "Six Transformations to achieve the Sustainable Development Goals" August 2019. DOI: 10.1038/s41893-019-0352-9

https://www.researchgate.net/publication/335405891 Six Transformations to achieve the Sustainable Development Goals

page 2: "Some countries may also expand nuclear power or consider continued fossil-fuel use with carbon capture and storage."

lxix One Earth. https://www.oneearth.org/team/

lxx Ibid.

lxxi NBC News. Gosia Wozniacka. "Can regenerative agriculture reverse climate change? Big Food". Oct. 29, 2019.

https://www.nbcnews.com/news/us-news/can-regenerative-agriculture-reverse-climate-change-big-food-banking-it-n1072941 "Regenerative agriculture, a term that is often used synonymously with "carbon farming..."

boxii Civil Eats. Gosia Wozniacka. "Are carbon markets worth the hype?". September 24, 2020. https://civileats.com/2020/09/24/are-carbon-markets-for-farmers-worth-the-hype/

^{lxxiii} Ibid.

loxiv One Earth. Karl Burkart. "Showdown at the Nature Zone". January 2, 2022. https://medium.com/oneearth/showdown-at-the-nature-zone-180df744d9b0

bxv CarbonDirect. Julio Friedman. "Offsets, Onsets, and Insets:

More is More". September 8, 2020. https://carbon-direct.com/2020/09/offsets-onsets-and-insets-more-is-more/

boxvi One Earth. Karl Burkart. "Showdown at the Nature Zone". January 2, 2022. https://medium.com/oneearth/showdown-at-the-nature-zone-180df744d9b0

Ixxvii CarbonDirect. Julio Friedman. "Offsets, Onsets, and Insets:

More is More". September 8, 2020. https://carbon-direct.com/2020/09/offsets-onsets-and-insets-more-is-more/

bxviii Nature Needs Half. What we do. Half is possible. https://natureneedshalf.org/what-we-do/

lxxix One Earth. Contributor: Erik Dinerstein. https://www.oneearth.org/contributor/eric-dinerstein/

kxx BioScience, Eric Dinerstein, David Olson, Anup Joshi et al. "An Ecoregion-Based Approach to Protecting Half the Terrestrial Realm". April 5, 2017. Volume 67, Issue 6, June 2017, Pages 534 -545. https://doi.org/10.1093/biosci/bix014

 $\underline{https://academic.oup.com/bioscience/article/67/6/534/3102935?login=false \# supplementary-data and the false \# supplem$

lxxxi Global Deal for Nature. https://www.globaldealfornature.org/petition/en/

boxii Science Advances. "A Global Deal For Nature: Guiding principles, milestones, and targets". E. Dinerstein, C. Vynne, E. Sala *et al*. April 19,

2019. Vol. 5, Issue 4. DOI: 10.1126/sciadv.aaw2869 A Global Deal For Nature: Guiding principles, milestones, and targets (science.org)

boxiii Tom BK Goldtooth. "Stopping the Privatization of Nature". Stopping the Privatization of Nature | Indigenous Environmental Network (ienearth.org)

Nature. Robert Costanza et al. "The value of the world's ecosystem services and natural capital". May 15, 1997.

https://www.nature.com/articles/387253a0

"We have estimated the current economic value of 17 ecosystem services for 16 biomes, based on published studies and a few original calculations. For the entire biosphere, the value (most of which is outside the market) is estimated to be in the range of US\$16-54 trillion (10¹²) per year, with an average of US\$33 trillion per year."



bxxiv Global Deal for Nature. https://www.globaldealfornature.org/petition/en/

boxx Science Advances. "A Global Deal For Nature: Guiding principles, milestones, and targets". E. Dinerstein, C. Vynne, E. Sala et al. April 19,

2019. Vol. 5, Issue 4. DOI: 10.1126/sciadv.aaw2869 A Global Deal For Nature: Guiding principles, milestones, and targets (science.org)

bxxxvi Flowcarbon. Goddess Nature Token. https://docs.flowcarbon.com/bundle-tokens/goddess-nature-token

bxxxii Reuters. Michael Taylor. "Analysis: Nature-pact goal to protect 30% of land and ocean hangs in balance".

November 18, 2021. https://www.reuters.com/business/cop/nature-pact-goal-protect-30-land-ocean-hangs-balance-2021-11-19/

boxxviii Government of California. Office of Governor Gavin Newsom. "Governor Newsom Launches Innovative Strategies to Use California Land to Fight Climate Change, Conserve Biodiversity and Boost Climate Resilience".

 $\frac{0 ctober\ 7,\ 2020.\ https://www.gov.ca.gov/2020/10/07/governor-newsom-launches-innovative-strategies-to-use-california-land-to-fight-climate-change-conserve-biodiversity-and-boost-climate-resilience/$

laxxix Government of California. Executive Order N-82-20. 2020. https://www.gov.ca.gov/wp-content/uploads/2020/10/10.07.2020-E0-N-82-20-signed.pdf

 $^{
m xc}$ The Guardian. Maya Yang. "California plan would give \$100m to Indigenous leaders to buy ancestral lands -

Proposal is part of Gavin Newsom's pledge to preserve one-third of the state's land and coastal waters by 2030". March 18, 2020.

https://www.theguardian.com/us-news/2022/mar/18/california-indigenous-tribes-purchase-land

xci White House. Executive Order on Tackling the Climate Crisis at Home and Abroad. January 27, 2021. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/

xcii Ibid. Section 216.

xciii GJEP. "GJEP responds to Biden's Earth Day Executive Order on US Forests and Climate". May 2, 2022. https://globaljusticeecology.org/gjeps-response-to-bidens-earth-day-executive-order-on-us-forests-and-climate/

xciv Ibid. Section 102. paragraph g-iii.

xcv White House. "President Biden Signs Executive Order to Strengthen America's Forests, Boost Wildfire Resilience, and Combat Global Deforestation". April 22, 2022

FACT SHEET: President Biden Signs Executive Order to Strengthen America's Forests, Boost Wildfire Resilience, and Combat Global Deforestation | The White House

xcvi GJEP. "GJEP responds to Biden's Earth Day Executive Order on US Forests and Climate. May 2, 2022. https://globaljusticeecology.org/gjeps-response-to-bidens-earth-day-executive-order-on-us-forests-and-climate/

xcvii Inside Climate News. Sabrina Shankman. "As Biden eyes a conservation plan, activists fear low-incomes communities and peoples of color could be left out". December 20, 2021. https://insideclimatenews.org/news/21122020/biden-30-by-30-land-conservation-plan-environmental-justice/
xcviii Ibid.

xcix Green Economy Coalition. "possibly up to half of the earth by 2050" https://www.greeneconomycoalition.org/news-and-resources/30x30-a-brave-new-dawn-or-a-failure-to-protect-people-and-nature

^c Global Safety Net. https://www.globalsafetynet.app/

^{ci} Global Safety Net. https://www.globalsafetynet.app/

cii Global Safety Net (GSN). https://www.globalsafetynet.app/

oii One Earth. Karl Burkart. "The Global Safety Net: a 'blueprint' to save critical ecosystems and stabilize the Earth's climate". https://www.oneearth.org/the-global-safety-net-a-blueprint-to-save-critical-ecosystems-and-stabilize-the-earths-climate/

civ One Earth. Karl Burkart. "The Global Safety Net: a 'blueprint' to save critical ecosystems and stabilize the Earth's climate". https://www.oneearth.org/the-global-safety-net-a-blueprint-to-save-critical-ecosystems-and-stabilize-the-earths-climate/

or One Earth. Karl Burkart. "The Global Safety Net: a 'blueprint' to save critical ecosystems and stabilize the Earth's climate". https://www.oneearth.org/the-global-safety-net-a-blueprint-to-save-critical-ecosystems-and-stabilize-the-earths-climate/

cvi One Earth. Karl Burkart. "The Global Safety Net: a 'blueprint' to save critical ecosystems and stabilize the Earth's climate". https://www.oneearth.org/the-global-safety-net-a-blueprint-to-save-critical-ecosystems-and-stabilize-the-earths-climate/cvii One Earth. Kurk Burkart. "Motion 101 passes at IUCN, calls for protecting 50% of Earth's lands and seas". October 25, 2021. https://www.oneearth.org/motion-101-passes-at-jucn-calls-for-protecting-50-of-earths-lands-and-seas/

cviii RESOLVE. "Rio Tinto Partners with RESOLVE to Launch Habitat Restoration Start-up". November 09, 2021.

"Rio Tinto is partnering with RESOLVE, a Washington-based nonprofit organisation, to launch Regeneration, a start-up that will use the re-mining and processing of waste from legacy mine sites to support rehabilitation activities and restore natural environments. Regeneration will extract valuable minerals and metals from mine tailings, waste rock and water. Earnings from the sale of these responsibly-sourced materials will be reinvested to



help fund habitat restoration and closure activities, including at legacy and former mine sites. Regeneration will also seek to create and trade biodiversity and carbon credits through the rehabilitation of land and the generation of environmental

 $offsets. {\it "https://www.prnewswire.com/news-releases/rio-tinto-partners-with-resolve-to-launch-habitat-restoration-start-up-301420158.html} \\$

- EX RESOLVE. Green Lead. https://www.resolve.ngo/docs/green-lead-project636890941088525557.pdf
- EX INSTORE Magazine. "RESOLVE and Diamond Development Initiative (DDI) Join Forces". July 22, 2020.

https://instoremag.com/resolve-and-diamond-development-initiative-ddi-join-forces/

- EXI RESOLVE. "We joined forces with the Diamond Development Initiative (DDI)..." July 2020. https://www.resolve.ngo/ppa.htm
- cxii Science Advances. "A Global Deal for Nature: Guiding principles, milestones, and targets". E. Dinerstein, C. Vynne, E. Sala *et al.* April 19, 2019. Vol. 5, Issue 4. DOI: 10.1126/sciedv.aaw2869 <u>A Global Deal For Nature: Guiding principles, milestones, and targets (science.org)</u>
- cxiii Science Advances. E. Dinerstein, A. R. Joshi, C. Vynne, A. T. L. Lee, et al. "A 'Global Safety Net' to reverse biodiversity loss and stabilize Earth's climate". September 4, 2020. https://www.science.org/doi/10.1126/sciadv.abb2824
- cxiv Science Advances. E. Dinerstein, A. R. Joshi, C. Vynne, A. T. L. Lee, et al. "A 'Global Safety Net' to reverse biodiversity loss and stabilize Earth's climate". September 4, 2020. https://www.science.org/doi/10.1126/sciadv.abb2824
- Nature Sustainability. Mehrabi, Z., Ellis, E.C. & Ramankutty, N. "The challenge of feeding the world while conserving half the planet." 1, 409–412 (2018). https://doi.org/10.1038/s41893-018-0119-8m https://www.nature.com/articles/s41893-018-0119-8#citeas
- ^{cxvi} Mark Dowie, *Conservation Refugees*, MIT Press. 2011. https://mitpress.mit.edu/books/conservation-refugees
- cxvii Global Alliance against REDD. http://no-redd.com/

REDD Monitor https://redd-monitor.org/

- cxviii https://redd-monitor.org/2015/09/10/durban-declaration-on-redd-stop-the-disastrous-redd-experiment/
- EXIX World Bank. "Securing Africa's Land for Shared Prosperity". 2013.
- ^{cxx} No REDD in Africa Network. Stopping the Continent Grab and the REDD-ification of Africa. 2015. https://no-redd.africa/wp-content/uploads/2021/11/REDDinAfricaNetwork.pdf [Accessed January 17, 2022]
- with Mugo Mugo, Patrick Africa for Sale: The Land Grab Landmine, "Professor Noble, a research associate in food security and community development, blames the land rush on the increasing demand to acquire fertile land by a corporate global minority seeking bio-fuel crops and the new frontier; the need for carbon credits has now turned into a lucrative business." http://www.monitor.upeace.org/innerpg.cfm?id article=877 Peasant Studies Journal on Green Grabbing http://www.tandfonline.com/toc/fips20/39/2#.UgWoWEbvxOt
- expansive forestry and mineral projects and plantations...""The global report shows the scale of the issue as never before: three-quarters of Africa's population and two-thirds of the landscape are at risk," says Andy White, who coordinates the RRI." "But international efforts at sustainable development are also threatening these areas. Biofuels are made from crops that are often planted on former forest or marsh land, and carbon-offset projects can result in the eviction of inhabitants of wooded areas that are bought up in exchange for carbon credits. Although the official carbon market made little progress in last year's United Nations Climate Change Conference in Durban, South Africa, the voluntary carbon market is still dispossessing local custodians of their lands. For example, Green Resources, a forestry company based in Oslo, has bought up hundreds of thousands of hectares of forests in Mozambique, threatening the food security and livelihoods of local populations by denying them access to their traditional lands and food sources. The company has also expanded to Uganda, Tanzania and southern Sudan. A Dutch firm's carbon-offset project in Uganda's Mount Elgon National Park became unmarketable after sustainable-development-1.9955
- REDD+ is now driving a race for land in Mozambique...The map below represents areas where a company with British capital wants to 'invest' in REDD+ projects. The total area identified is 150 000 Km2, equivalent to 15 million ha or 19% of the country's surface. The selection of areas for this private 'investment' was based on the proposed REDD+ pilots... Am I witnessing the creation of generations of landless people in Mozambique and Africa in general?" International Institute for Environment and Development, Nhantumbo, Isilda, REDD+ in Mozambique: new apportunity for land arabbers? http://www.ijed.org/blogs/redd-mozambique-new-opportunity-for-land-grabbers
- model, in which profit incentives depend upon differential opportunity costs, will entail a net upward redistribution of wealth from poorer to wealthier classes and from rural regions to distant centres of capital accumulation, mainly in the global North."
- Bracking, Sarah, How do Investors Value Environmental Harm/Care? Private Equity Funds, Development Finance Institutions and the Partial Financialization of Nature-based Industries, 'Private equity funds, mostly domiciled in secrecy jurisdictions, are dominant investors in the resource-based economies of Africa. Some of the investments that these funds make have been speculative and based on perceived high-value 'futures' in biodiversity, bio-fuels and land, carbon capture or strategic minerals. However, private equity funds are also heavily invested in mining, energy and infrastructure, which also generate wealth from the non-human world; 'old' markets alongside the 'new' markets for discovered nature-based



commodities...[T]hese calculative devices assist in legitimizing private equity funds as institutional leaders in pre-existing power structures which exploit natural resources in Africa for the benefit of money-holders. These propositions roughly correspond to the technical, empirical and theoretical dimensions of a socio-technical arrangement applying to nature-based accumulation, which, overall, performs a political process of financialization." http://www.sociologywire.com/2012/02/22/how-do-investors-value-environmental-harmcare-private-equity-funds-development-finance-institutions-and-the-partial-financialization-of-nature-based-industries/">http://www.sociologywire.com/2012/02/22/how-do-investors-value-environmental-harmcare-private-equity-funds-development-finance-institutions-and-the-partial-financialization-of-nature-based-industries/

composed on African forestland, fields and grasslands, it could mean the economic subjugation of the entire continent...REDD and CDM schemes will probably be no more than a form of re-colonisation, and the final drive to commodify the remaining spaces of Africa left in indigenous hands after the first round of formal colonialism." https://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/No%20REDD%20papers%200ne.pdf

Example States and the first round of formal colonialism." https://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/No%20REDD%20papers%200ne.pdf

Example States and States

Carbon Scam alleged in Liberia "Liberia" Event and to secure around a fifth of Liberia's total forest area — 400,000 hectares — in a forest carbon concession. Police in London arrested Mike Foster, CEO of Carbon Harvesting Corporation, last week." http://news.mongabay.com/2010/0610-carbon_scam_liberia. New Form of Colonialism http://bailiffafrica.org/africans-unite-against-new-form-of-colonialism-no-redd-network-horn/

CXXIX Carbon traders want access to 1/3 of Mozambique under REDD+ - but MICDA says no

"Carbon trading companies have applied for rights over one-third of Mozambique, to sell carbon credits generated by emissions reductions caused by reduced deforestation. But the Ministry of Environment (MICDA, Ministério para Coordenação da Acção Ambiental) is resisting pressure from companies, the Council of Ministers, and the World Bank to speed the process." http://www.cip.org.mz/bulletin/en/ On August 27, 2013 the legislation that will allow the implementation of REDD+ projects in Mozambique was being approved in a session of the Council of Ministers.

***These may be conservative estimates. There is at least 8,905,978 hectares or 89,059.78 km sq of REDD-type projects that are active, proposed or have been completed in Cameroon. Cameroon has 199,160 km sq of forests, so the area affected by REDD-type projects is 44.7% of Cameroon's forests. Cameroon is 475,442 km sq so the area affected by REDD-type projects is at least 18.7% of the national territory.

cxxxi Mongabay, Carbon Scam in Liberia http://news.mongabay.com/2010/0610-carbon_scam_liberia.html

EXXXII REDD Monitor, Shift2Neutral's big REDD deal in the Democratic Republic of Congo http://www.redd-monitor.org/2010/08/27/shift2neutrals-big-redd-deal-in-the-democratic-republic-of-congo/

Although the contract was subsequently declared illegal and void, this incident serves to illustrate the dishonesty and ambition of some carbon traders. REDD Monitor, Shift2Neutral Agreement in DRC "illegal" http://www.redd-monitor.org/2010/10/06/shift2neutral-agreement-in-dr-congo-illegal/

Existing large-scale plantations in Niassa and Nampula are also taking advantage of REDD+ and the Clean Development Mechanism, by seeking to certify the plantations as carbon sinks." International Institute for Environment and Development, Nhantumbo, Isilda, REDD+ in Mozambique: new opportunity for land grabbers? http://www.iied.org/blogs/redd-mozambique-new-opportunity-for-land-grabbers

EXXX REDD for Communities and Forests et al. A one-step guide to making the national REDD strategy more pro-poor, "The draft National REDD strategy justifies the classification of 49 % of forests as being on general land by stating that, 'General Land as used here means all public land which is not reserved or village land including unoccupied or unused village land.' On the same page, the strategy also states, 'Forests in General Land are 'open access', characterized by unsecured land tenure, shifting cultivation, annual wild fires, harvesting of wood fuel, poles and timber, and heavy pressure for conversion to other competing land uses, such as agriculture, livestock grazing, settlements and industrial development. 'Confusingly, in these two definitions, land that communities use for agriculture, harvesting of wood products, grazing and even settlement is defined as 'unused'." http://climatecapacity.org/files/RC%20RED0%20and%20forestry/Tanz_Policy_Brief_Land_Issues_REDD.pdf



EXXXVI The Ecologist, Lack of forest definition 'major obstacle' in fight to protect rainforests, "In the second in our series examining REDD we report how ambiguous forest definitions are putting the future success of forest protection schemes in doubt and allowing logging companies to destroy biodiverse habitats - The current lack of a working definition of what degraded forest or land is 'plays into the hands' of logging companies, say forest campaigners. The companies claim to responsibly develop 'only on degraded land', but in reality this can actually mean they are clearing forests and peatlands."

http://www.theecologist.org/News/news analysis/640908/lack of forest definition major obstacle in fight to protect rainforests.html "Over 80% of the world's remaining biodiversity is found within Indigenous peoples' lands and territories Indigenous peoples represent approximately 350 million individuals in the world and make up approximately 90% of the world's cultural diversity. We use our highly specialized, traditional knowledge to care for and conserve the interconnected web or "Circle of Life" known as "biodiversity." Indigenous Peoples Council on Biocolonialism http://www.ipcb.org/issues/agriculture/htmls/2003/ien food_sec.html Conversation International, REDD+, "Two immediate ways to reduce greenhouse gas emissions are to halt the destruction of remaining tropical forests and to plant trees in degraded areas."

http://www.conservation.org/learn/climate/solutions/mitigation/Pages/climate_REDD.aspx Redd Forests Pty Itd is a "profit for purpose" business designed to apply commercially viable methodologies to replace activities which degrade or destroy the world's forests http://www.reddforests.com/

EXXXVII Dowie, Mark, Conservation Refugees - When protecting nature means kicking people out

http://www.orionmagazine.org/index.php/articles/article/161/

EXXXVIII Friends of the Earth International, REDD Myths, http://www.foei.org/en/resources/publications/pdfs/2008/redd-myths

cxxix The term Carbon Colonialism may have been first coined by Harald Eraker in his report Carbon Colonialism: Norwegian Tree Plantations, Carbon Credits and Land Conflicts in Uganda www.norwatch .no/download-document/19- co2lonialism.html http://www.fivh.no/norwatch/english/Reports/uganda.htm This may lead to a new form of colonialism."- Trygve Refsdal, advisor to the Ugandan forest authorities, quoted by Harald Eraker, April 2000

Nature Sustainability. <u>Judith Schleicher</u>, <u>Julie G. Zaehringer</u>, <u>Constance Fastré</u>, <u>Bhaskar Vira</u>, <u>Piero Visconti</u> and <u>Chris Sandbrook</u>. "Protecting half of the planet could directly affect over one billion people". <u>Protecting half of the planet could directly affect over one billion people | Nature Sustainability</u>

^{cxli} lbid.

Page I: "our approach generates a conservative estimate of the potential number of people affected."

^{cxlii} Ibid.

^{cxliii} Ibid.

cxliv Ibid.

cxlv Ibid.

^{extvi} Conservation and Society. Arun Agrawal and Kent Redford. "Conservation and Displacement: An Overview." 7. 2009.

Edvii Mongabay. Elizabeth Claire Alberts "In Half-Earth Project, a full-on bid to get countries to protect biodiversity". October 6, 2021. https://news.mongabay.com/2021/10/in-half-earth-project-a-full-on-bid-to-get-countries-to-protect-biodiversity/

cxlviii Elizabeth Kolbert. *The Sixth Extinction: An Unnatural History.* 2014. https://www.goodreads.com/book/show/17910054-the-sixth-extinction cxlix Worldometer. https://www.worldometers.info/world-

population/#:~:text=7.9%20Billion%20(2022),currently%20living)%20of%20the%20world. "The current world population is **7.9 billion** as of March 2022 according to the most recent United Nations estimates elaborated by Worldometer. The term "World Population" refers to the human population (the total number of humans currently living) of the world."

^{cl} Nature Sustainability. <u>Judith Schleicher</u>, <u>Julie G. Zaehringer</u>, <u>Constance Fastré</u>, <u>Bhaskar Vira</u>, <u>Piero Visconti</u> and <u>Chris Sandbrook</u>. "Protecting half of the planet could directly affect over one billion people". <u>Protecting half of the planet could directly affect over one billion people</u> | <u>Nature</u> Sustainability

cli Indigenous Environmental Network. "Reaping profits, from Evictions, land grabs, Deforestation and Destruction of biodiversity". 2007. http://www.ienearth.org/REDD/

clii Nature Sustainability. Mehrabi, Z., Ellis, E.C. & Ramankutty, N. "The challenge of feeding the world while conserving half the planet." 1, 409–412 (2018). https://www.nature.com/articles/s41893-018-0119-8#citeas

^{cliii} Ibid.

cliv Ibid.



ely Cambridge University Press. Bram Büscher et al. "Half-Earth or Whole Earth? Radical ideas for conservation, and their implications". December 5, 2016. https://www.cambridge.org/core/journals/oryx/article/halfearth-or-whole-earth-radical-ideas-for-conservation-and-theirimplications/C62CCE8DA34480A048468EE39DF2BD05

Citing Wilson, E.O. (2016) Half-Earth: Our Planet's Fight for Life. Liveright Publishing, London, UK. P.192. Google Scholar

- ^{clvii} Cambridge University Press. Bram Büscher *et al.* "Half-Earth or Whole Earth? Radical ideas for conservation, and their implications". December 5, 2016. https://www.cambridge.org/core/journals/oryx/article/halfearth-or-whole-earth-radical-ideas-for-conservation-and-theirimplications/C62CCE8DA3448DA048468EE39DF2BD05
- civii Science Direct. Current Opinion in Environmental Sustainability, Erle C Ellis and Zia Mehrabi. "Half Earth: promises, pitfalls, and prospects of dedicating Half of Earth's land to conservation". https://www.sciencedirect.com/science/article/pii/S1877343518300861
- clix Nature Sustainability. Mehrabi, Z., Ellis, E.C. & Ramankutty, N. "The challenge of feeding the world while conserving half the planet." 1, 409–412 (2018). https://doi.org/10.1038/s41893-018-0119-8m https://www.nature.com/articles/s41893-018-0119-8#citeas clx Ibid.

^{clxi} Ibid.

- claim Science Direct. Current Opinion in Environmental Sustainability, Erle C Ellis and Zia Mehrabi. "Half Earth: promises, pitfalls, and prospects of dedicating Half of Earth's land to conservation". https://www.sciencedirect.com/science/article/pii/S1877343518300861
- ckiii Science Direct. Current Opinion in Environmental Sustainability. Erle C Ellis and Zia Mehrabi."Half Earth: promises, pitfalls, and prospects of dedicating Half of Earth's land to conservation". https://www.sciencedirect.com/science/article/pii/S1877343518300861 clxiv Ihid.
- clay The American Political Science Review. Ronald Wintrobe. "The Tinoot and the Totalitarian: An Economic Theory of Dictatorship". p. 849–872. https://www.jstor.org/stable/1962769
- clavi See, for example, Greg Grandon. *The Blood of Guatemala. A History of Race and Nation.* Duke University Place. 2000.
- clavii REDD Monitor, Chris Lang. "30X30: "A bigger land grab than has ever been planned". March 1, 2022. https://reddmonitor.org/2022/03/01/30x30-a-bigger-land-grab-than-has-ever-been-planned/

clxviii REDD Manitar.

- ckix Survival International. Dear Humanity. https://www.survivalinternational.org/about/dearhumanity
- clax REDD Monitor, Chris Lang. "30X30: "A bigger land grab than has ever been planned". March 1, 2022. https://reddmonitor.org/2022/03/01/30x30-a-bigger-land-grab-than-has-ever-been-planned/
- classi Survival International. Dear Humanity. https://www.survivalinternational.org/about/dearhumanity
- chxii Foreign Affairs. How Conservation became Colonialism. Alexander Zaitchik. July 16, 2018. https://foreignpolicy.com/2018/07/16/howconservation-became-colonialism-environment-indigenous-people-ecuador-minino/
- classiv Yellowstone was the first national park and first protected area in the contemporary sense of the term.
- clxxv National Geographic Society. Cartographic Division. Map of Yellowstone.

https://cdn.shopify.com/s/files/1/0268/2549/0485/products/national-geographic-vellowstone-and-grand-teton-map-1989-side-1 2400x.jpg?v=1572558386

clxxvi The Atlantic. David Treuer. "Return the national parks to the tribes". May 2021.

https://www.theatlantic.com/magazine/archive/2021/05/return-the-national-parks-to-the-tribes/618395/

chavii The Atlantic. J. Weston Phippen. "The Buffalo Killers". May 13, 2016. https://www.theatlantic.com/national/archive/2016/05/the-buffalokillers/482349/

clxxviii The Atlantic. David Treuer. "Return the national parks to the tribes". May 2021.

https://www.theatlantic.com/magazine/archive/2021/05/return-the-national-parks-to-the-tribes/618395/

chxix Yellowstone Forever. "Safeguarding Yellowstone - The US Army 1886-1918." https://www.yellowstone.org/safeguarding-yellowstone-the-us-<u>army-1</u>886-1918/

clxxx High Country News. Debra Utacia Krol. "Indigenous way of life for these California tribes breaks state laws". September 17, 2019. https://www.hcn.org/issues/51.17/tribal-affairs-an-indigenous-way-of-life-for-these-california-tribes-breaks-state-laws

clxxxi The Atlantic, David Treuer, "Return the national parks to the tribes", May 2021,

https://www.theatlantic.com/magazine/archive/2021/05/return-the-national-parks-to-the-tribes/618395/

choodi Foreign Affairs. How Conservation became Colonialism. Alexander Zaitchik. July 16, 2018. https://foreignpolicy.com/2018/07/16/howconservation-became-colonialism-environment-indigenous-people-ecuador-minino/

chandii Barry University. Law Publications. Mark Christopher Hopson. "The Wilderness Myth: How the Failure of the American National Park Model Threatens the Survival of the Iyaelima Tribe and the Bonobo Chimpanzee". 2011.

https://lawpublications.barrv.edu/cgi/viewcontent.cgi?article=1003&context=eieii



choosiv Orion Magazine. Rebecca Torte et al. "We are still here. John Muir is not". https://orionmagazine.org/2020/08/op-ed-we-are-still-here-john-muir-is-not/#:~:text=John%20Muir%20Is%20Not.,-

 $\frac{AddThis\%20Sharing\%20Buttons\&text=\%E2\%80\%9CThey're\%20still\%20killing\%20us.\&text=The\%20Sierra\%20Club\%20faces\%20its,of\%20the\%20modern\%20environmental\%20movement.$

choov Orion Magazine. Rebecca Tortes *et al.* "We are still here. John Muir is not". https://orionmagazine.org/2020/08/op-ed-we-are-still-here-john-muir-is-not/#:~:text=John%20Muir%20Is%20Not.,-

 $\frac{AddThis\%20Sharing\%20Buttons\&text=\%E2\%80\%9CThey're\%20still\%20killing\%20us.\&text=The\%20Sierra\%20Club\%20faces\%20its.of\%20the\%20modern\%20environmental\%20movement.$

clxxxvi Ibid.

change of conservation." August 26, 2016. https://www.theguardian.com/global-development/2016/aug/28/exiles-human-cost-of-conservation-indigenous-peoples-eco-tourism

choosevation and Society. Arun Agrawal and Kent Redford. "Conservation and Displacement: An Overview".

 $\frac{\text{http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/5333/ConservatSoc711-5531198_152151.pdf? is Allowed=y & sequence=1 & \text{location} \\ \text{closed in the location} \\ \text{location} \\ \text{1000} \\$

^{cxc} The Guardian. John Vidal. "The tribes paying the brutal price of conservation." August 26, 2016. https://www.theguardian.com/global-development/2016/aug/28/exiles-human-cost-of-conservation-indigenous-peoples-eco-tourism

excii Environmental Justice Atlas. Diamond Extraction in the Central Kalahari Game Reserve. https://ejatlas.org/conflict/diamond-extraction-in-the-central-kalahari-game-reserve-botswana

Environmental Justice Atlas. Diamond Extraction in the Central Kalahari Game Reserve. https://ejatlas.org/conflict/diamond-extraction-in-the-central-kalahari-game-reserve-botswana

cxciv All Africa. Survival International. "Botswana: Bushman Children Arrested Under Renewed Government Repression". January 15, 2013. https://allafrica.com/stories/201301160212.html

^{cxcv} The Guardian. John Vidal. "The tribes paying the brutal price of conservation." August 26, 2016. https://www.theguardian.com/global-development/2016/aug/28/exiles-human-cost-of-conservation-indigenous-peoples-eco-tourism

cxxvi The New Humanitarian. "San controversy rekindled". September 25, 2009. https://www.thenewhumanitarian.org/report/86309/botswana-san-controversy-rekindled

cxxvii Forced Migration. Kai Schmidt-Soltau. "Evictions from DRC's protected areas". November 2010.

https://www.fmreview.org/DRCongo/Schmidt-Soltau.htm

exeviii Ibid.

excix Minority Rights Group International. Robert Flummerfelt. "To Purge the Forest by Force: Organized violence against Batwa in Kahuzi-Biega National Park". April 2022. https://minorityrights.org/publications/pnkb/

^{cc} Robert Flummerfelt as quoted by ReliefWeb. "To Purge the Forest by Force: Organized violence against Batwa in Kahuzi-Biega National Park". April 6, 2022. https://reliefweb.int/report/democratic-republic-congo/purge-forest-force-organized-violence-against-batwa-kahuzi-biega

coi The Guardian. John Vidal. "The tribes paying the brutal price of conservation." August 26, 2016. https://www.theguardian.com/global-development/2016/aug/28/exiles-human-cost-of-conservation-indigenous-peoples-eco-tourism

coii Forced Migration. Michael Cernea. "'Restriction of access' is displacement: a broader concept and policy". May 2005. https://www.fmreview.org/sites/fmr/files/FMRdownloads/en/europe/cernea.pdf coiii lbid.

coiv The Guardian. John Vidal. "The tribes paying the brutal price of conservation." August 26, 2016. https://www.theguardian.com/global-development/2016/aug/28/exiles-human-cost-of-conservation-indigenous-peoples-eco-tourism

ccv Ibid.

^{ccvi} J.G. Galaty. "Unsettling realities: pastoral land rights and conservation in east Africa". Paper presented at the conference Displacement, Forced Settlement and Conservation. St. Anne's College, Oxford. 1999.

covii Rainforest Foundation-UK. "Protected Areas in Congo Basin:Failing People and Biodiversity?". Are national parks in the Congo Basin failing biodiversity and people? New 'paradigm' of conservation needed - RFUK | Rainforest Foundation UK "Protected Areas in the Congo Basin: Failing People and Biodiversity?"

ccviii Ibid.

ccix Ibid.

ccx Wikipedia. International Union for Conservation of

Nature. https://en.wikipedia.org/wiki/International Union for Conservation of Nature#cite note-worldwatch.org-12



"To establish a stable financial basis for its work, IUCN participated in setting up the World Wildlife Fund (1961) (now the World Wide Fund for Nature WWF) to work on fundraising to cover part of the operational costs of IUCN."

coxi IUCN. Business and Biodiversity. https://www.iucn.org/theme/business-and-biodiversity/our-work/business-engagement-sector/extractives

Also see Save Virunga. "2021 Highlights: The Ugly Truth About EACOP and IUCN". IUCN Response to Letter to Save Virunga. January 24, 2022. https://savevirunga.com/2022/01/24/2021-highlights-the-ugly-truth-about-eacop-and-iucn%ef%bf%bc/

coxii IUCN. "Shell and IUCN: Guiding the Way". June 7, 2011. https://www.iucn.org/content/iucn-and-shell-guiding-way

coxiii IUCN. Business and Biodiversity. Black Mountain Mining. https://www.iucn.org/theme/business-and-biodiversity/our-work/business-engagement-partner/black-mountain-mining

coxiv IUCN. "Forecasting a path towards a Net Positive Impact for Rio Tinto – QMM". https://www.iucn.org/content/forecasting-path-towards-a-net-positive-impact-biodiversity-rio-tinto-qmm

CEXT IUCN. Business and Biodiversity. Newmont. https://www.iucn.org/theme/business-and-biodiversity/our-work/business-engagement-partner/newmont

ccxvi IUCN. Business and Biodiversity. Anglo American. https://www.iucn.org/theme/business-and-biodiversity/our-work/business-engagement-partner/anglo-american

"Anglo American recognises that they need to invest in nature-based solutions and be responsible stewards of the natural resources as well as the environment they work in. The company's Sustainable Mining Plan is embedded in the UN's Sustainable Development Goals and is part of its FutureSmart Mining™ programme."

ccxvii IUCN. Business and Biodiversity. International Council of Mining and Metals. https://www.iucn.org/theme/business-and-biodiversity/our-work/business-partnerships-projects/international-council-mining-and-metals

ccxviii IUCN. Stuart Ansee *et al.* "Exploring ecosystem valuation to move towards net positive impact on biodiversity in the mining sector". 2011. https://portals.iucn.org/library/node/10012

CEXIX Drion Magazine. Mark Dowie. "Conservation Refugees". No date. https://orionmagazine.org/article/conservation-refugees/

Panda Leaks. Wilfried Huismann. 2014. https://www.amazon.com/PandaLeaks-Dark-Side-Wilfried-Huismann/dp/1502366541

ccxxi Ibid.

ccxxii Ibid.

coxxiii Influence Watch. World Wildlife Fund. https://www.influencewatch.org/non-profit/world-wildlife-fund/

ccxxiv Anglo American. De Beers. https://www.angloamerican.com/careers/career-areas/de-beers

CCXXV Northrop Grumman. https://www.northropgrumman.com/

ECCOUNTIES REDD Monitor. "Conservation International: Are they any more than a green PR firm?". May 12, 2011. https://redd-

 $\underline{monitor.org/2011/05/12/conservation-international-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company/second-are-they-any-more-than-a-green-pr-company-second-are-they-any-more-than-a-green-pr-company-second-are-than-a-green-p$

CCXXVII UNEP. Biodiversity A to Z. International Finance Corporation. "Critical Habitat". https://www.biodiversitya-z.org/content/critical-habitat

CCXXVIII Shell Dil. Environmentally Sensitive Areas. IUCN Category I-IV protected areas (chart).

https://www.shell.com/sustainability/environment/biodiversity/environmentally-sensitive-areas.html

"In seven countries, there are companies we operate with activities in IUCN Category I-IV protected area." [Accessed March 8, 2020.]

ccxxix Unearthed. Lawrence Carter *et al.* "Oil frontiers: Government backs British oil firm's drive into African national park". September 25, 2016. https://unearthed.greenpeace.org/2016/09/25/revealed-british-oil-firms-africa-national-parks/

Springer Link. Matea Osti *et al.* "Oil and gas development in the World Heritage and wider protected area network in sub-Saharan Africa". July 8, 2011. Oil and gas development in the World Heritage and wider protected area network in sub-Saharan Africa | SpringerLink

CCXXXI IOPscience. Matt Finer and Martí Orta-Martínez.

A second hydrocarbon boom threatens the Peruvian Amazon: trends, projections, and policy implications - 10Pscience February 16, 2010.

ccxxxii Wiley Online Library. Janeth Lessman, Javier Fajardo, Jesús Muñoz, Elisa Bonaccorso "Large expansion of oil industry in the Ecuadorian Amazon: biodiversity vulnerability and conservation alternatives". June 24, 2016. Large expansion of oil industry in the Ecuadorian Amazon: biodiversity vulnerability and conservation alternatives - Lessmann - 2016 - Ecology and Evolution - Wiley Online Library

ccxxxiii National Parks Conservation Association. Nicholas Lund. "The Facts on Oil and Gas Drilling in National Parks". March 29, 2017.

https://www.npca.org/articles/1471-the-facts-on-oil-and-gas-drilling-in-national-

parks#:~:text=There%20are%20currently%20534%20active,active%20drilling%20at%20this%20point.

coxxxiv National Parks Conservation Association. Nicolas Lund. "National Parks Affected by 9b Rules". February 17, 2017.

https://www.npca.org/resources/3190-national-parks-affected-by-9b-rules

ccxxxv Ibid.



ccxxxvi Goad, J. and Goldfuss, C. "Drilling Could Threaten Our National Parks". 2012. Centre for American Progress

coxxvii Conservation and Society. Catrina A. MacKenzie, Rebecca K. Fuda, Sadie Jane Ryan , and Joel Hartter "Drilling through Conservation Policy: Oil Exploration in Murchison Falls Protected Area, Uganda". 2017.

https://www.environmentandsociety.org/sites/default/files/key_docs/conservatsocI53322-24602II_065002.pdf

coxxxviii Fauna and Flora International. David Marsh. "When boundaries break down: oil and gas in protected areas". July 1, 2015. https://www.fauna-flora.org/news/when-boundaries-break-down-oil-and-gas-in-protected-areas/

ccxxxix Ibid.

ccxl Man camp. https://en.wikipedia.org/wiki/Man camp

ccxli Ihid

coxiii Survival International. "The greatest threats to Peru's uncontacted Indians are oil workers and illegal loggers." No date.

https://www.survivalinternational.org/tribes/isolatedperu

ccxliii Ibid.

ccxliv For example, for artisanal or small-scale gold mining.

PROFOR. "Impact of Artisanal and Small Scale Mining in Protected Areas". May 2013. https://www.profor.info/content/impact-artisanal-and-small-scale-mining-protected-areas

Coxivi U4 Brief. Michael D. Beevers, "Large-Scale Mining in Protected Areas Made Possible Through Corruption: Options for Donors." June, 17. 2015. https://www.u4.no/publications/large-scale-mining-in-protected-areas-made-possible-through-corruption-options-for-donors https://www.cmi.no/publications/5850-large-scale-mining-in-protected-areas-made

ccxlvii Ibid.

ccxlviii Ibid.

^{ccxlix} Society for Mining, Metallurgy & Exploration. "Meeting the World's Future Mineral Needs". https://www.smenet.org/What-We-Do/Technical-Briefings/Meeting-the-World-s-Future-Mineral-Needs

col World Bank Group. "Clean Energy Transition Will Increase Demand for Minerals says new World Bank report". July 18, 2017.

 $\frac{\text{https://www.worldbank.org/en/news/press-release/2017/07/18/clean-energy-transition-will-increase-demand-for-minerals-says-new-world-bank-report}$

coli World Bank Group. The Growing Role of Minerals and Metals for a Low-Carbon Future". 2017.

 $\frac{\text{https://documents.worldbank.org/en/publication/documents-reports/documentdetail/207371500386458722/the-growing-role-of-minerals-and-metals-for-a-low-carbon-future}$

celii World Bank Group. "Clean Energy Transition Will Increase Demand for Minerals says new World Bank report". July 18, 2017.

https://www.worldbank.org/en/news/press-release/2017/07/18/clean-energy-transition-will-increase-demand-for-minerals-says-new-world-bank-report

coliii International Monetary Fund. Nico Valckx *et al.* Metals demand from energy transition may top current global supply. December 8, 2021. https://blogs.imf.org/2021/12/08/metals-demand-from-energy-transition-may-top-current-global-supply/ccliv lbid.

Luman Rights Watch. "DR Congo: gold fuels massive human rights atrocities - Leading international corporations established links to warlords". June 1, 2005. https://www.hrw.org/news/2005/06/01/dr-congo-gold-fuels-massive-human-rights-atrocities#

colvi Mongabay. Morgan Erickson-Davis. "Deforestation intensifies in Northern DRC protected areas". June 2, 2012.

https://news.mongabay.com/2021/06/deforestation-intensifies-in-northern-drc-protected-areas/

ccivii Ibid

colviii WWF. Species- Giant Panda. https://www.worldwildlife.org/species/giant-panda

usda. Biological Conservation. Kunyuan Wanghe *et al.* "Spatial coincidence between mining activities and protected areas of giant panda habitat: The geographic overlaps and implications for conservation". pp. 108600. 2020. https://pubag.nal.usda.gov/catalog/6983134 colv. Ibid.

color Supplementary Materials. *Table St. The minerals, start time and deadline, annual output, and area of the mining concessions.* from USDA. Biological Conservation. Kunyuan Wanghe *et al.* "Spatial coincidence between mining activities and protected areas of giant panda habitat: The geographic overlaps and implications for conservation". 2020. https://pubag.nal.usda.gov/catalog/6983134

usda. Biological conservation. Kunyuan Wanghe *et al.* "Spatial coincidence between mining activities and protected areas of giant panda habitat: The geographic overlaps and implications for conservation". pp. 108600. 2020. https://pubag.nal.usda.gov/catalog/6983134

coloriii Mongabay. Global Forest Reporting Network. Shreya Dasgupta "Loggers destroying giant panda habitat, says Greenpeace". November 2, 2015. https://news.mongabay.com/2015/11/loggers-destroying-giant-panda-sanctuaries-says-greenpeace/

coliviv Science Direct. Current Biology. Zuzana Buřivalová, Sarah J. Hart, Volker C. Radeloff, Umesh Srinivasan." Early warning sign of forest loss in protected areas". Volume 31, Issue 20, 2021.



Co-and-Apple.htm

Pages 4620-4626.e3 https://www.sciencedirect.com/science/article/abs/pii/S0960982221010629 cclxv Ibid. cclxvi Ibid. cclxvii Ibid. coloriii Anthropocene Maoazine. Warren Cornwall. "Just because a forest is protected doesn't mean it won't get logged". August 11. 2018. https://www.anthropocenemagazine.gra/2021/08/just-because-a-forest-is-protected-doesnt-mean-it-wont-get-logged/ ccixix Conservation and Society. Catrina A. MacKenzie. Rebecca K. Fuda. Sadie Jane Rvan . and Joel Hartter. "Drillino through Conservation Policy: Oil Exploration in Murchison Falls Protected Area, Uganda". 2017. https://www.environmentandsociety.org/sites/default/files/key_docs/conservatsoc153322-2460211_065002.pdf colox Conservation and Society. Catrina A. MacKenzie, Rebecca K. Fuda, Sadie Jane Ryan , and Joel Hartter. "Drilling through Conservation Policy: Oil Exploration in Murchison Falls Protected Area, Uganda". 2017. https://www.environmentandsociety.org/sites/default/files/key_docs/conservatsoc(53322-2460210_065002.odf cclxxi Ibid. cclxxii The Guardian. John Vidal. "The tribes paying the brutal price of conservation." August 26, 2016. https://www.theguardian.com/globaldevelopment/2016/aug/28/exiles-human-cost-of-conservation-indigenous-peoples-eco-tourism "Most of the world's 6.000 national parks and 100.000 protected places have been created by the removal of tribal peoples." coloniii John Mbarai, Ogada Mordecai. "The Big Conservation Lie - The Untold Story of Wildlife Conservation in Kenya". December 11, 2016. https://www.abebooks.com/9780692787212/Big-Conservation-Lie-Mbaria-John-0692787216/olo coloxiv New African Magazine. John Mbarai. "A conspiracy in the wild". https://newafricanmagazine.com/14936/ colors Conservation Watch. Chris Lang. Book Review - The Big Conservation Lie. July 12, 2017. https://medium.com/conservationwatch/book-reviewthe-big-conservation-lie-666f65988153 coloxvi New African Magazine. John Mbarai. "A conspiracy in the wild". https://newafricanmagazine.com/14936/ "The Tullow Dil Company, that has been involved in oil prospecting in Turkana County, has funded NRT to the tune of \$11.5m..." coboxii Conservation Watch. Chris Lang. Book Review – The Big Conservation Lie. July 12, 2017. https://medium.com/conservationwatch/book-reviewthe-big-conservation-lie-666f65988153 colxxviii New African Magazine. John Mbarai. "A conspiracy in the wild". https://newafricanmagazine.com/14936/ cclxxix Interview with author, Spring 2022. coloxial Science Direct. Land Use Policy. Nienke Busscher. Constanza Parra, Frank Vanclay. "Land grabbing within a protected area: The experience of local communities with conservation and forestry activities in Los Esteros del Iberá, Argentina". Volume 78. November 2018. Pages 572-582. https://www.sciencedirect.com/science/article/abs/pii/S0264837717312425 coloxxii Grist. Molly Enking. The U.S. is leading the global charge to scale back protected lands | Grist May 31, 201 9. ^{colxoxiii} Science. Rachel E. Golden Kroner *et al.* The uncertain future of protected lands and waters (science.oro) May 31, 2019. coloxxiv IPS. Jewel Frazer. Trinidad and Tobago – Protecting the iconic Three Sisters (ibw21.org) September 2, 2020. coloury Food and Agriculture Organization of the United Nations. "Information Leaf - Can oil and gas activities be included in protected areas? -Improving forest and protected area management". No. 2. No date. https://www.protectedareastt.org.tt/images/resources/Information%20Leaf%202%20-%200il%20and%20Gas%20in%20PAs.pdf / Accessed March 18, 2022.] cclxxxvi Ibid. colxxxvii RESOLVE. Annual Report 2020 https://www.resolve.ngo/docs/resolve annualreport2020 final.pdf The Global Deal for Nature, which "we published in April 2019." cchooviii Science Advances. "A Global Deal for Nature: Guiding principles, milestones, and targets". E. Dinerstein, C. Vynne, E. Sala *et al*. April 19, 2019. Vol. 5. Issue 4. DOI: 10.1126/sciadv.aaw2869 A Global Deal For Nature: Guiding principles, milestones, and targets (science.org) cclxxxix Global Safety Net. https://www.globalsafetynet.app/ cexe Science Advances. "A Global Deal for Nature: Guiding principles, milestones, and targets". E. Dinerstein, C. Vynne, E. Sala *et al*. April 19, 2019. Vol. 5, Issue 4. DOI: 10.1126/sciadv.aaw2869 A Global Deal For Nature: Guiding principles, milestones, and targets (science.oro) "50.4% of the Earth's land." ccxci RESOLVE. Green Lead. https://www.resolve.ngo/docs/green-lead-project636890941088525557.pdf https://www.resolve.ngo/docs/green-lead-project.pdf CCXCII RESOLVE. Salmon Gold. https://www.resolve.ngo/salmon_gold.htm

Apple. "Searching for gold with habitat restoration in mind". https://www.apple.com/newsroom/2019/08/searching-for-gold-with-habitat-restoration-in-mind/

RESOLVE. Salmon Gold enters supply chains of Tiffany Co, and Apple. https://www.resolve.ngo/blog/Salmon-Gold-Enters-Supply-Chains-of-Tiffany--



Mining Magazine. "Sustainability Shining with Salmon Gold Launch". https://www.miningmagazine.com/sustainability/news/1369495/sustainabilityshining-with-salmon-gold-launch

CCXCIII INSTORE Magazine. "RESOLVE and Diamond Development Initiative (DDI) Join Forces". July 22, 2020.

https://instoremag.com/resolve-and-diamond-development-initiative-ddi-join-forces/

cexciv RESOLVE. "We joined forces with the Diamond Development Initiative (DDI)..." July 2020. https://www.resolve.ngo/ppa.htm

coxev Earth.oro. Nikita Shukla. "A Third of Children Globallv are Being Affected by Lead Poisoning – Study". December 7, 2020.

https://earth.org/children-lead-poisoning/?gclid=eaiaigobchmihatklfbg9givrnszch2bdagbeamyasaaegi-dpd_bwe

coxevi Public Health Council of Upper Valley. "Lead poisons peoples, especially children". https://uvpublichealth.org/lead-poisoning/

ccxcvii World Health Organization. International Lead Poisoning Prevention Week 2021. https://www.who.int/campaigns/international-lead-poisoning $prevention-week/2021/about \#: \sim : text=The \%20 Institute \%20 for \%20 Health \%20 Metrics, highest \%20 burden \%20 in \%20 developing \%20 regions.$

ccxcviii Interview with author. Spring 2022.

CEXCIX RESOLVE. Salmon Gold.

https://www.resolve.ngo/salmon_gold.htm#:~:text=Launched%20in%202018%20by%20RES0LVE,and%20other%20anadromous%20fish%20spec

CCC RESOLVE. Salmon Gold.

https://www.resolve.nop/salmon_gold.htm#:~:text=Launched%20in%202018%20bv%20RESQLVE.and%20other%20anadromous%20fish%20spec

RESOLVE. "Salmon Gold enters supply chain of Tiffany Co, and Apple". August 13, 2019. https://www.resolve.ngo/blog/Salmon-Gold-Enters-Supply-Chains-of-Tiffany--Co-and-Apple.htm

cccii Apple. Newsroom. "searching for gold with habitat restoration in mind". August 2019. https://www.apple.com/newsroom/2019/08/searching-forgold-with-habitat-restoration-in-mind/

ccciii Greenbiz. "Salmon Gold: Apple promises to embrace fish-friendly gold mining." https://www.greenbiz.com/article/salmon-gold-applepromises-embrace-fish-friendly-gold-mining

ccciv Michigan State University. Science Daily. "Mining can damage fish habitats far downstream". November 25, 2014. https://www.sciencedaily.com/releases/2014/11/141125111851.htm

cccv Hakai Magazine. Simon Ryan. "Fish-Friendly Gold Mines Produce Salmon Gold". May 10, 2021.

https://hakaimagazine.com/news/fish-friendly-gold-mines-produce-salmon-gold/

cccoi Government of Canada. Fisheries and Oceans. Effects of sediment on fish and their habitat – Placer Mining Yukon Territory. Pacific Region Habitat Status Report 2000. https://waves-vagues.dfo-mpo.gc.ca/Library/255660.pdf

cccvii Tara Lamothe-Ammerlaan. Daniel BrendleMoczuk. Glenn Grande. Amy Crook. *THE NEW GOLD RUSH: Placer Mining in the Fraser Watershed.* 2017. https://ojs.library.ubc.ca/index.php/bcstudies/article/view/189420

CCCCVIII Wild Salmon Center. Bristol Bay. https://wildsalmoncenter.org/campaigns/bristol-bay/

cocix Mongabay. Laurel Sutherland. "Alaskan Indigenous leaders fear impacts on salmon streams by mining project". January 26, 2022.

https://news.mongabay.com/2022/01/alaskan-indigenous-leaders-fear-impacts-on-salmon-streams-from-mining-project/

cccx RESOLVE. "Salmon Gold Partner Wins Sustainable Development Prize". October 21. 2019. https://www.resolve.ngo/blog/Salmon-Gold-Partner-Wins-Sustainable-Development-Award.htm

cccxi RESOLVE. Salmon Gold. Supplemental Information. https://www.resolve.ngo/docs/salmon_gold_supplemental_information.pdf

cccxii Tr'ondëk Hwëch'in First Nation Cultural Orientation and Protocols Toolkit.

http://lss.vukonschools.ca/uploads/4/5/5/0/45508033/part 2 thfn.pdf

cccxiii Ibid.

ccció H. Dobrowolsky. *Hammerstones: A History of the Tr'ondëk Hwëch'in.* (Tr'ondëk Hwëch'in. 2003). Map after C. Osoood with revisions by T. J. Hammer and Patricia Halladay. http://tc.gov.yk.ca/archives/nothing/gold/hanl.htm

Canadian Enciclopedia. Han. https://www.thecanadianencyclopedia.ca/en/article/han

Chief Isaac's People. http://www.chiefisaac.com/traditional_territory.html

ccxv Canada. Government of Yukon. Klondike Gold Rush. The Hän and the Gold Rush. 2. http://tc.gov.yk.ca/archives/nothing/gold/han2.htm

http://tc.gov.yk.ca/archives/nothing/gold/han3.htm

http://tc.gov.vk.ca/archives/nothing/gold/han4.htm

cccxvi History of the Tr'ondek Hwach'in First Nation.

https://second.wiki/wiki/geschichte der tre28099ondek hweche28099in first nation

Craig Mishler, William E. Simeone, Han, People of the River - Han Hwech'in. University of Alaska Press. 2004.

https://upcolorado.com/university-of-alaska-press/item/5771-han-people-of-the-river

cccxviii Tr'ondëk Hwëch'in First Nation Cultural Orientation and Protocols Toolkit.

http://lss.yukonschools.ca/uploads/4/5/5/0/45508033/part 2 thfn.pdf



cccxix Anchorage Daily News. Charles Wohlforth. "Native memory: Rewriting Alaska history with the word 'genocide'". July 26, 2018. https://www.adn.com/opinions/2018/07/26/native-memory-rewriting-alaska-history-with-the-word-genocide/ "Genocide is officially defined by the United Nations and what happened to Alaska Natives fits precisely, said Dalee Sambo Dorough." Yukon News. "The word you're looking for is genocide". June 7, 2019. https://www.yukon-news.com/opinion/editorial-the-word-youre-looking-for-is-genocide/ American Indian Law Journal. Anoelique Eaglewoman. "The Ongoing Traumatic Experience of Genocide for American Indians and Alaska Natives in the United States: The Call to Recognize Full Human Rights as Set Forth in the UN Declaration on the Rights of Indigenous Peoples". June 2, 2015. Vol. III, Issue II, Spring 2015. https://ssrn.com/abstract=2613705 cccx United Nations. Erica-Irene A. Daes. "Indigenous peoples' permanent sovereignty over natural resources. - Final report of the Special Rapporteur". July 13, 2004. E/CN.4/Sub.2/2004/30. https://digitallibrary.un.org/record/526284?ln=en#record-files-collapse-header cccxxi United States Geological Survey, Jack Wade Creek, https://mrdata.usgs.gov/ardf/show-ardf.php?ardf num=EA144 cccxxii United States Geological Survey, J. B. MERTIE, Jr. "Mining in the Fortymile District". https://pubs.usgs.gov/bul/813-C/report.pdf CCCXXIII United States Geological Survey. Jacks Wade Creek Placer. April 1, 1987. https://mrdata.usgs.gov/mrds/show-USGS. ARDF records with mrds.php?dep_id=10107542 commodity Hg (mercury). Jack Wade Creek, Wade Creek. https://mrdata.usgs.gov/ardf/ardf.php?commodity=Hg CCCCXXIV United States Department of the Interior. Bureau of Mines. Mercury Potential of the United States. Information circular 8252. 1965. http://repository.azgs.az.gov/sites/default/files/dlio/files/nid1768/usbmic8252mercurypartlof2.pdf CCCXXV United States Geological Survey, Jack Wade Creek, https://mrdata.usgs.gov/ardf/show-ardf.php?ardf_num=EA144 Mindat. Jack Wade Creek, Wade Creek Mine. https://www.mindat.org/loc-198191.html cccxxvi Dean Boenino. "Ecological Effects. Transport, and Fate of Mercury: A General Review". Chemosphere 40. 2 2000. 1335-51 https://pubmed.ncbi.nlm.nih.gov/10789973/ CCCCXXVIII Government of Canada. Mercury in the food chain. https://www.canada.ca/en/environment-climate-change/services/pollutants/mercuryenvironment/health-concerns/food-chain.html cccxviii Geir Biørklund *et al.* "Mercury exposure and its effects on fertility and pregnancy outcome". May 28, 2019. https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13264 cccxxix Human Rights Watch. "Mercury Rising: Gold Mining's Toxic Side Effect". September 27, 2017. https://www.hrw.org/news/2017/09/27/mercury-rising-gold-minings-toxic-sideeffect?gclid=EAlalQobChMlyNGL5 XX9glVjb7lChOS wcgEAAYASAAEgKRH D BwE# CCCXXX Planet Gold. Małgorzata Stylo et al. "Tales of Mercury-Containing Tailings". January 10, 2022. https://www.planetgold.org/tales-mercury-<u>containi</u>ng-tailings cccxxxi Ibid. cocxxxii Environmental Pollution. Sydney P.Clackett, Trevor J.Porter and IgorLehnherr. "The tree-ring mercury record of Klondike gold mining at Bear Creek, central Yukon". January 1, 2021. Volume 268. https://www.sciencedirect.com/science/article/pii/S0269749120364666 ccxxxiii The Conversation. Jaqueline Gearson et al. "Gold rush, mercury legacy: Small-scale mining for gold has produced long-lasting toxic pollution, from 1860s California to modern Peru". May 28, 2020. Gold rush, mercury legacy: Small-scale mining for gold has produced long-lasting toxic pollution, from 1860s California to modern Peru (theconversation.com) cccxxxiiv National Institute of Health. Dr. Louisa J. Esdaile and Dr. Justin M. Chalker. "The Mercury Problem in Artisanal and Small-Scale Gold Mining". May 11, 2018. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5969110/ "Mercury release from tailings and vaporized mercury exceed 1000 tonnes each year from ASGM." Mercury: The Tailings Issue, Yayasan Tambuhak Sinta (YTS). Accessed 2 October 2017 from https://www.youtube.com/watch?v=xsXiAAuFLNc&feature=youtu.be CECXXXX Duke University. "Mercury from gold mines accumulates far downstream". January 8, 2015. https://phys.org/news/2015-01-mercury-goldaccumulates-downstream.html CCCXXXVI Tara Lamothe-Ammerlaan, Daniel Brendle Moczuk, Glenn Grande, Amy Crook, THE NEW GOLD RUSH: Placer Mining in the Fraser Watershed. 2017. https://ojs.library.ubc.ca/index.php/bcstudies/article/view/189420 CCCCXXXVII Government of Canada. Mercury in the Food Chain. https://www.canada.ca/en/environment-climate-change/services/pollutants/mercuryenvironment/health-concerns/food-chain.html ccxxxxiii RESOLVE. "Salmon Gold Partner Wins Sustainable Develooment Prize". October 21. 2019. https://www.resolve.noo/blog/Salmon-Gold-Partner-Wins-Sustainable-Development-Award.htm cccxxxix RESOLVE. Salmon Gold - Supplemental Information. https://www.resolve.ngo/docs/salmon_gold_supplemental_information.pdf ECCCXI RESOLVE. "Rio Tinto Partners with RESOLVE to Launch Habitat Restoration Start-up". November 09, 2021. https://www.prnewswire.com/news-releases/rio-tinto-partners-with-resolve-to-launch-habitat-restoration-start-up-301420158.html

https://www.resolve.ngo/regeneration.htm

cccxli RESOLVE. Regeneration - A restoration and mining enterprise.



project-cambodia

cccxlii RESOLVE. "Rio Tinto Partners with RESOLVE to Launch Habitat Restoration Start-up". November 09, 2021. https://www.prnewswire.com/news-releases/rio-tinto-partners-with-resolve-to-launch-habitat-restoration-start-up-301420158.html cccxliii RESOLVE. Regeneration - A restoration and mining enterprise. https://www.resolve.ngo/regeneration.htm cccxliv Ibid. cccxlv Ihid. cccxlvi Ibid. cccxivii Mining.com. Cecilia Jasmasmie. "Nature-first Mining could create \$3.5 trillion market by 2030". July 14, 2020. https://www.mining.com/nature-first-mining-could-create-3-5-trillion-market-by-2030-report/ cccx/viii Horizontal Drilling, Lynn Helms. 2008. https://www.dmr.nd.gov/ndgs/documents/newsletter/2008Winter/pdfs/Horizontal.pdf cccdix IUCN with support from Shell, Rio Tinto and The Nature Conservancy. "Net Positive Impact". 2016. https://www.iucn.org/sites/dev/files/import/downloads/npi conservation 01 2016 1.pdf cccl World Bank. Stefano Pagiola. "Using PES to implement REDD". January 2011. https://documentsl.worldbank.org/curated/en/540231468325271699/odf/862730NWPOPESLOOBox385172800PUBLICO.odf cccli Science Advances. "A Global Deal For Nature: Guiding principles, milestones, and targets". E. Dinerstein, C. Vynne, E. Sala *et al*. April 19, 2019. Vol. 5, Issue 4. DOI: 10.1126/sciadv.aaw2869 A Global Deal For Nature: Guiding principles, milestones, and targets (science.org) coolii The Guardian. Patrick Greenfield. "Biopiracy row at UN talks in Geneva threatens global deal to save nature". https://www.theguardian.com/environment/2022/mar/30/copl5-faces-copenhagen-moment-genetic-data-dispute-aoe cooliii United Nations Framework Convention on Climate Change. "Biodiversity, Climate Change and Sustainable Development: Harnessing, Synergies and Celebrating Successes". Final Technical Report January 2012. https://unfccc.int/sites/default/files/biodiversity_climate_change_sustainable_development_technical_report.pdf cccliv REDD Monitor. Chris Lang. "Green grabs are no the solution to land grabs". July 7, 2016. https://redd-monitor.org/2016/07/07/green-grabsare-not-the-solution-to-land-grabs/

ccclv Mongabay. Dyna Rochmyaningsih. "REDD+ should finance corridors between protected areas, argues study". February 14, 2014. https://news.mongabay.com/2014/02/redd-should-finance-corridors-between-protected-areas-argues-study/ "The Reducing Emissions from Deforestation and Forest Degradation (REDD+) program should finance protection of corridors linking existing protected areas in order to better safeguard biodiversity while simultaneously helping mitigate climate change, argues a study published last month in Nature Climate Change... 'The beauty of what we've done is not only identifying the optimal corridors for connectivity, but also identifying where to focus and get the most for a given investment,' said Scott Goetz." ccclvi See nanes 8-9. ccclvii Rights and Resources Initiative and McGill University. Carbon Rights Brief. May 2021, https://rightsandresources.org/wocontent/uploads/Carbon-Rights-Brief-G-pager-v8.pdf Environmental Reviews. Bill Freedman et al. "Carbon credits and the conservation of natural areas". February 5, 2009. https://cdnsciencepub.com/doi/abs/10.1139/A08-007 ccclix The Fish Site. Rob Fletcher. "Could funding MPAs offer a new system of blue carbon credits". March 18, 2021. https://thefishsite.com/articles/could-funding-mpas-offer-a-new-system-of-blue-carbon-credits ccck Gretchen Cara Daily, Katherine Ellison. *The New Economy of Nature: The quest to make conservation profitable.* Island Press. 2003. https://islandpress.org/books/new-economy-nature ccclxi Conservation and Society. Arun Agrawal and Kent Redford. "Conservation and Displacement: An Overview". http://dlc.dlib.indiana.edu/dlc/bitstream/handle/10535/5333/ConservatSoc711-5531198 152151.pdf?isAllowed=y&sequence=1 ccckii TERI - The Energy and Resource Institute. Yatish A Lele. "Developing voluntary carbon market project for Perivar Tiger Reserve (PTR). Kerala". June 9, 2021, https://www.teriin.org/project/developing-voluntary-carbon-market-project-perivar-tiper-reserve-otr-kerala ccckiii Terra Global Capital. "Kulera Landscape REDD+ Program for Co-Managed Protected Areas in Malawi – Project Design Document". October 2013. https://s3.amazonaws.com/CCBA/Projects/Kulera Landscape REDD%2B Project For CoManaged Protected Areas Malawi/CCB+PDD+Kulera+-+v2-0+(1).pdf ccckiv Terra Global Capital. "Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi". https://www.terraglobalcapital.com/sites/default/files/Terra%20Global%20-%20Kulera%20Info%20Sheet.pdf cccby REDD Monitor. "Responses from Terra Global Capital, VCS and Wildlife Works to Fern's report 'Unearned Credit: Why Aviation Industry Forest Offsets Are Doomed To Fail'". February 4, 2018. https://redd-monitor.org/2018/02/04/responses-from-terra-global-capital-vcs-and-wildlifeworks-to-ferns-report-unearned-credit-why-aviation-industry-forest-offsets-are-doomed-to-fail/ REDD Monitor. "A response from Terra Global Capital about the Oddar Meanchey REDD project in Cambodia". January 28, 2014. https://reddmonitor.org/2014/01/28/a-response-from-terra-global-capital-about-the-oddar-meanchey-redd-project-in-cambodia/

^{ccclxvi} Terra Global Capital. Oddar Meanchey Community REDD Project. https://www.terraglobalcapital.com/oddar-meanchey-community-redd-



ccclavii REDD Monitor. "Oddar Meanchey, Cambodia – No one seems to be learning any lessons". February 25, 2016. https://reddmonitor.org/2016/02/25/oddar-meanchey-cambodia-no-one-seems-to-be-learning-any-lessons/ ccclwiii REDD Monitor. "Some Questions about the Oddar Meanchey REDD project in Cambodia". January 27, 2014. https://reddmonitor.org/2014/01/27/some-questions-about-the-oddar-meanchey-redd-project-in-cambodia/ ccckix Fern. Jutta Kill. "Unearned Credit: Why Aviation Industry Forest Offsets Are Doomed To Fail". November 13, 2017. https://www.fern.org/publications-insight/unearned-credit-why-aviation-industry-forest-offsets-are-doomed-to-fail-184/ cccbx REDD Monitor. "Some Questions about the Oddar Meanchey REDD project in Cambodia". January 27, 2014. https://reddmonitor.org/2014/01/27/some-questions-about-the-oddar-meanchey-redd-project-in-cambodia/ ccclosi Terra Global Capital. "Kulera Landscape REDD+ Program for Co-Managed Protected Areas in Malawi – Project Design Document". October 2013. https://s3.amazonaws.com/CCBA/Projects/Kulera Landscape REDD%2B Project For CoManaged Protected Areas Malawi/CCB+PDD+Kulera+-+v2-0+(1).pdf ccclosii Terra Global Capital. "Kulera Landscape REDD+ Program for Co-Managed Protected Areas in Malawi – Project Design Document". October 2013. https://s3.amazonaws.com/CCBA/Projects/Kulera Landscape REDD%2B Project For CoManaged Protected Areas Malawi/CCB+PDD+Kulera+-Stan Stevens. Conservation through Cultural Survival. Protected Areas and Indigenous Peoples. 1997. Island Press. p.31 and 32. https://books.google.com/books/about/Conservation Through Cultural Survival.html?id=P8obOv3fdegC ccclosiv UNESCO. World Heritage Sites. Tentatives List. Nkiya National Park, https://whc.unesco.org/en/tentativelists/1420/ coclosy Terra Global Capital. "Kulera Landscape REDD+ Program for Co-Managed Protected Areas in Malawi – Project Design Document". October 2013. https://s3.amazonaws.com/CCBA/Projects/Kulera Landscape REDD%2B Project For CoManaged Protected Areas Malawi/CCB+PDD+Kulera+-+v2-0+(1).pdf ccclxxvi Terra Global Capital. "Kulera Landscape REDD+ Program for Co-Managed Protected Areas in Malawi – Project Design Document". October https://s3.amazonaws.com/CCBA/Projects/Kulera Landscape REDD%2B Project For CoManaged Protected Areas Malawi/CCB+PDD+Kulera+-+v2-0+(1).pdf ccclosvii Journal of Southern African Studies. John McCracken. "Imagining the Nyika Plateau: Laurens van der Post, the Phoka and the Making of a National Park". Dec., 2006, Vol. 32, No. 4, Heritage in Southern Africa (Dec., 2006), pp. 807-821. Taylor & Francis, Ltd.. https://www.jstor.org/stable/25065152?seg=1 "In 1975, the government extended the Park's boundaries from 367 square miles to 1,209 square miles, evicting all villagers living in this large area, about 5,000 in total, to the lowlands below. No hunting, honey collecting, grazing or firewood collection was permitted over the whole of the new extended area of the Park. Initially, the government paid no compensation for coffee plants uprooted or huts burnt to the ground." Page 14 of pdf. [Emphasis added.] cockwiii All Africa. Malawi News Agency. Joel Chirwa. "Malawi: Former Nyika Residents Want Their Ancestral Land Back". May 1, 2014. https://allafrica.com/stories/201405020746.html ccclxxix Terra Global Capital. "Kulera Landscape REDD+ Program for Co-Managed Protected Areas, Malawi". https://www.terraglobalcapital.com/sites/default/files/Terra%20Global%20-%20Kulera%20Info%20Sheet.pdf ccclxxx Conservation & Society. James Robert Fairhead. "Technology, Inclusivity and the Roque: Bats and the War Against the 'Invisible Enemy'". Vol. 16, No. 2, Special Section: Green Wars. 2018. pp. 114-124. Ashoka Trust for Research in Ecology and the Environment and Wolters Kluwer India Pvt. Ltd. Stable URL: https://www.jstor.org/stable/26393322 https://www.jstor.org/stable/pdf/26393327.pdf?refreqid=excelsior%3A38Ifc548I562293086c759cle8e7cc526ab_segments=Gorigin= ccclxxxi Avispa Midia. Guatemala: Carbon, the Metric of Displacement in Petén - Avispa Midia April 28, 2019. VCS. REDD Case Study. 2018. https://verra.grg/wo-content/uploads/2018/02/REDD-Climate-Goal-Contributions-Case-Study.pdf "The project has been so successful that CONAP is considering the same concession model for other protected areas in Guatemala, including some national parks." ccclixxiii Conservation & Society. Elizabeth Lunstrum and Megan Ybarra. "Deploying Difference: Security Threat Narratives and State Displacement from Protected Areas". 2018. Vol. 16, No. 2, Special Section: Green Wars (2018), pp. 114-124. Ashoka Trust for Research in Ecology and the Environment and Wolters Kluwer India Pvt. Ltd. Stable URL: https://www.jstor.org/stable/26393322 cccbooiii Megan Ibarra. "Green Wars: Conservation and Decolonization in the Maya Forest". December 2017. DOI: 10.1525/9780520968035 ccchoody Conservation & Society, Elizabeth Lunstrum and Megan Ybarra. "Deploying Difference: Security Threat Narratives and State Displacement from Protected Areas". 2018. Vol. 16, No. 2, Special Section: Green Wars (2018), pp. 114-124. Ashoka Trust for Research in Ecology and the Environment and Wolters Kluwer India Pvt. Ltd. Stable URL: https://www.jstor.org/stable/26393322 ccclxxxv Ihid.

ccclxxxvi REDD Monitor. Chris Lang. "Green grabs are not the solution to land grabs". July 7, 2016. https://redd-monitor.org/2016/07/07/green-

orabs-are-not-the-solution-to-land-orabs/



cccboovii Conservation International. "Protecting Forests and Climate in Alto Mayo" https://www.conservation.org/stories/protecting-forestsand-climate-in-alto-mayo "In response, Conservation International, working with local communities and Peru's government, developed a program under the United Nations-backed REDD+ framework (Reducing Emissions from Deforestation and forest Degradation)." cockwaviii REDD Monitor. "Conservation International: Are they any more than a green PR firm?". May 12, 2011. https://reddmonitor.org/2011/05/12/conservation-international-are-they-any-more-than-a-green-pr-company/ cccloxxix Bloomberg, Zahcary R. Mider, John Quigley. "Disney's Jungle Cruise". June 9. 2020. https://www.bloomberg.com/graphics/2020-disney-"But life in this forest, known as the Alto Mayo, has been transformed in recent years by a Disney-funded campaign to save the trees." Conservation International. Corporate Engagements. Disney. https://www.conservation.org/corporate-engagements/disney "As part of Disney's commitment to address emissions and combat climate change, the Company is supporting Conservation International's forest conservation REDD+ projects primarily in the Alto Mayo region of Peru. This effort is the largest commitment to Conservation International by a sinole corporation to such projects to date. Additionally, Disney served coffee from the Alto Mayo region in their parks and resorts." cccc BHP Foundation. Alto Mayo: establishing a sustainable economic model in the Amazon. https://www.bhp.com/-/media/documents/community/bhpfoundation/190606_bhpfoundation_altomavo.pdf?la=en cccci REDD Monitor. "Fortress conservation: Disney's offsets are paying for heavily armed park rangers in Conservation International's Alto Mayo REDD project in Peru". June 24, 2020, https://redd-monitor.org/2020/06/24/fortress-conservation-disneys-offsets-are-paying-for-heavilyarmed-park-rangers-in-conservation-internationals-alto-mayo-redd-project-in-peru/ CCCCCCII Bloombero. Zahcarv R. Mider. John Quigley. "Disney's Jungle Cruise". June 9, 2020. https://www.bloomberg.com/graphics/2020-disney-perudeforestation/ CCCXCIII BHP Group. https://www.bhp.com/ ccccciv REDD Monitor. "Conservation International admits failures in its Alto Mayo Protected Forest REDD project in Peru". November 30, 2021. https://redd-monitor.org/2021/11/30/conservation-international-admits-failures-in-its-alto-mayo-protected-forest-redd-projectin-peru-but-uses-the-failures-as-part-of-its-success-narrative/ cccxcv Ibid. cccxcvi Global Citizen. Joe McCarthy. "These Communities Are Fighting Poverty and Protecting Forests Amid COMD-19". May 14, 2020. https://www.globalcitizen.org/en/content/sustainable-development-covid-19-green-recovery/ cccxvii REDD Monitor. Conservation International admits failures in its Alto Mayo Protected Forest REDD project in Peru. But uses the failures as part of its success narrative | REDD-Monitor November 11, 2021. COCCCCVIII REDD Monitor. "Carbon colonialism in the Alto Mayo REDD project in Peru. An interview with Lauren Gifford on Earth Watch". July 3, 2020. https://redd-monitor.org/2020/07/03/carbon-colonialism-in-the-alto-mayo-redd-project-in-peru-an-interview-with-lauren-gifford-on-earthwatch/ cccccix Center for Biological Diversity. "Suit Filed Against Expansion of Navaio Coal Mine Polluting Four Corners Region". May 16, 2012. https://www.biologicaldiversity.org/news/press_releases/2012/navajo-coal-mine-05-16-2012.html cd Friends of the Earth International. "An Endless Crime: BHP Billiton and Vale's Sludge still Harming Brazil". January 4, 2018. https://www.foei.org/an-endless-crime-bhp-billiton-and-vales-sludge-still-harming-brazil/ cdi Oxford Human Rights Hub. Jade Weiner. "BHP to be dammed?". August 11, 2020. https://ohrh.law.ox.ac.uk/bhp-to-be-dammed/ cdii SEC. "SEC Charges BHP Billiton With Violating FCPA at Olympic Games". May 20, 2015. https://www.sec.gov/news/pressrelease/2015-93.html#:~:text=The%20Securities%20and%20Exchange%20Commission.to%20settle%20the%20SEC's%20charges cdiii London Mining Network. "OECD accepts complaints against Anglo American, BHP and Glencore at Cerrejón". January 26, 2022. https://londonminingnetwork.org/2022/01/oecd-accepts-complaints-against-anglo-american-bhp-and-glencore-at-cerrejon/ cdiv Unearthed. Joe Sandler Clark. "BHP Billiton abandons oil drilling plans near Amazon coral reef". March 14, 2018. https://unearthed.oreenpeace.org/2018/03/14/bhp-billiton-abandon-oil-licenses-near-amazon-reef/ cdv Seb Ordonez Munoz, War on Want's Senior International Programmes Officer as quoted in War on Want. "The Neocolonial Violence of Mining: Stories of Resistance". September 9, 2017. https://waronwant.org/news-analysis/neocolonial-violence-mining-stories-resistance-against-bhp cdvi BHP Foundation. "Alto Mayo: establishing a sustainable economic model in the Amazon". No date. https://www.bhp.com/-/media/documents/community/bhpfoundation/190606 bhpfoundation altomayo.pdf?la=en [Accessed October 29, 2022] cdvii Ibid. ^{cdviii} Ibid. ^{edix} The Guardian. Mathew Taylor, Johnathan Watts. "Revealed: 20 firms behind a third of all carbon emissions". October 9, 2019.

https://www.theguardian.com/environment/2019/oct/09/revealed-20-firms-third-carbon-emissions of libid.



cdxi Business and Human Rights Resource Center. "London Court of appeal agrees to reopen lawsuit against BHP over collapse of Fundao dam in Brazil". July 28, 2021. https://www.business-humanrights.org/en/latest-news/london-court-of-appeal-agrees-to-reopen-lawsuit-against-bhpover-collapse-of-fundao-dam-in-brazil/ ^{cóxii} Indian Country Today. Rick Kearns. "Indigenous Wayuu Children Dying from Corruption and a Stolen River in Colombia". April 17, 2015. https://indiancountrytoday.com/archive/indigenous-wayuu-children-dying-from-corruption-and-a-stolen-river-in-colombia "The measures they have taken have been insufficient and Cerrejon (a huge coal mine in the region), with the permission of the national

government, now benefits from the only source of water that we have, leaving the community suffering from thirst and because of that many lives have been lost," Uriana stated.

cdxiii See, for example, REDD Monitor. "Conservation International: Are they any more than a green PR firm?". May 12, 2011. https://reddmonitor.org/2011/05/12/conservation-international-are-they-any-more-than-a-green-pr-company/

cáxiv Minino Technoloov. "Q&A: the inside track on BHP & Conservation International's unlikely partnership". December 4. 2019. https://www.miningtechnology.com/features/the-inside-track-on-bhp-conservation-internationals-unlikely-partnership/

cdxv Mapping for Rights. https://cbca.mappingforrights.org/

cdxvi Mapping for Rights. https://cbca.mappingforrights.org/

cdxvii Emory University. Geography and Empire. https://scholarblogs.emory.edu/postcolonialstudies/2014/06/20/geography-and-empire/

cdxviii WWF. "Reforesting the Global South with WWF's Education for Nature and UPS". https://www.worldwildlife.org/threats/deforestation-andforest-degradation#:~:text=Forests%20cover%20approximately%20one%20third,world%20at%20an%20alarming%20rate

edxix See interview with forest and livelihoods programme director Christine Padoch in the video "Community Based Forest Management: Local Solutions to Global Challenges". https://www.youtube.com/watch?v=fAzO_NlxMuM&hd=1

cdxx FAD and FILAC. "Forest Governance by Indigenous and Tribal Peoples. 2021. https://www.fao.org/americas/publicaciones-audio-video/forestgov-by-indigenous/en/
cdxxi The Guardian. Damian Carrington. "Indigenous peoples by far the best guardians of forests – UN report". March 25, 2021.

https://www.theguardian.com/environment/2021/mar/25/indigenous-peoples-by-far-the-best-guardians-of-forests-un-report

cdxxii WWF. "Reforesting the Global South with WWF's Education for Nature and UPS". https://www.worldwildlife.org/threats/deforestation-and $forest-degradation \#: \sim : text = Forests \% 20 cover \% 20 approximately \% 20 one \% 20 third, world \% 20 at \% 20 and \% 20 alarming \% 20 rate in the property of the property o$

cdxxiii Science Advances. "A Global Deal For Nature: Guiding principles, milestones, and targets". E. Dinerstein, C. Vynne, E. Sala et al. April 19, 2019. Vol. 5, Issue 4. DOI: 10.1126/sciadv.aaw2869 A Global Deal For Nature: Guiding principles, milestones, and targets (science.org)

cdxxiv ETC Group. Earth Grab: Geopiracy, the New Biomassters and Capturing Climate Genes. Pambazuka Press.

http://fahamubooks.org/book/?GCDI=90638100969040

cdxxx Rights and Resources Initiative and McGill University. Carbon Rights Brief. May 2021. https://rightsandresources.org/wpcontent/uploads/Carbon-Rights-Brief-6-pager-v8.pdf

cdxxvi WWF. Saving forest with REDD. No date. https://www.worldwildlife.org/initiatives/saving-forests-with-redd [Accessed February 14, 2022] cdxxvii No REDD. www.no-redd.com (Accessed July 20, 2018)

VIDEO: Exposing REDD. https://www.youtube.com/watch?v=m8tXcA9JWoQ Accessed July 20, 2018]

Worst REDD-type Projects affecting Indigenous Peoples http://no-redd.com/wp-content/uploads/2015/04/A-Dozen-of-the-Worst-REDD-type projects-English1.pdf (Accessed July 20, 2018)

Worst REDD-type Projects in Africa, http://no-redd.com/wo-content/uploads/2018/06/WorstREDD-typeprojectsinAfrica.pdf cdxxviii REDD Monitor. https://redd-monitor.org/

cdxxix Carbon Trade Watch. "Indigenous Peoples call for a moratorium on REDD". 2011. http://www.carbontradewatch.org/articles/indigenouspeoples-call-for-a-moratorium-on-redd.html

cdxxx Friends of the Earth. "Bloody REDD: The fight against forest carbon offsets in California". July 12. 2012. https://foe.org/blog/fight-againstforest-carbon-offsets/

cdxxxi REDD Project Database, International Database on REDD+ projects (reddprojectsdatabase.org)

cdxxxiii Mongabay. Peter Yeung. "As COP26 looms and tropical deforestation soars, REDD debate roars on". Aprail 14, 2021.

https://news.monoabay.com/2021/04/as-cop26-looms-and-tropical-deforestation-spars-redd-debate-roars-on/ cdxxxiv Ihid.

cdxxxv WWF. "Landscape REDD+ - The Biggest New Game in Forest Management". 2015. https://wwfint.awsassets.panda.org/downloads/4.pdf cdxxxvi World Bank Group. World Bank's Climate Change Fund Management Unit. https://www.worldbank.org/en/topic/climatechange/brief/worldbank-carbon-funds-facilities

cdxxxvii World Bank Group. Forest Carbon Partnership Facility, https://www.forestcarbonpartnership.org/



```
Yale Environment. Fred Pearce. "A Big New Forest Initiative Sparks Concern of a 'Carbon Heist". October 28, 2021.
https://e360.yale.edu/features/a-big-new-forest-initiative-sparks-concerns-of-a-carbon-heist
cdxxxix REDD Monitor. "The return of the carbon cowboys". November 12, 2020. https://redd-monitor.org/2020/11/12/the-return-of-the-carbon-
cowboys-how-niht-inc-failed-to-get-free-prior-and-informed-consent-for-redd-in-new-ireland-papua-new-guinea/
cdxl Bloomberg, March 22, 2021. Russia Wants to Use a Forest Bigger Than India to Offset ...
cdxii Yale Environment. Fred Pearce. "A Big New Forest Initiative Sparks Concern of a 'Carbon Heist'". October 28, 2021.
https://e360.yale.edu/features/a-big-new-forest-initiative-sparks-concerns-of-a-carbon-heist
cdxiii Mongabay. Dyna Rochmyaningsih. "REDD+ should finance corridors between protected areas, argues study". February 14, 2014.
https://news.mongabay.com/2014/02/redd-should-finance-corridors-between-protected-areas-argues-study/
cáxiiii For example, the Monte Pascoal-Pau-Brasil Ecological Corridor: Carbon, Community and Biodiversity Initiative in the Mata Atlantica of Brazil.
cdxliv Yale Environment. Fred Pearce. "A Big New Forest Initiative Sparks Concern of a 'Carbon Heist". October 28, 2021.
https://e360.vale.edu/features/a-bio-new-forest-initiative-sparks-concerns-of-a-carbon-heist
cdxlv UN-REDD. Regions and Countries. https://www.unredd.net/regions-and-countries/regions-and-countries-
overview.html#:~:text=Regions%20and%20Countries%20OverviewGtext=The%20UN%2DREDD%20Programme%20supports.Latin%20America%2
Oand%20the%20Caribbean.
cdxlvi UN-REDD. Our Impact. https://www.un-redd.org/about/our-impact
"UN-REDD partner countries host 70% of all tropical forests."
cdxlvii UNFCCC, REDD. Brazil, Submissions, 2006, https://redd.unfccc.int/submissions.html?country=BR
cdx/viii Reuters. Staff. "Oil spill may be worst environmental 'attack' in Brazil's history: Petrobras CEO". October 29, 2019.
https://www.reuters.com/article/us-brazil-petrobras-oilspill/oil-spill-may-be-worst-environmental-attack-in-brazils-history-petrobras-ceo-
idUSKBN1X81Q9
color 
boosted-through-redd-plus
cd https://issuu.com/fundacaobr/docs/reddinbrazil-iutta-kill-bollbrasil
World Rainforest Movement, Jutta Kill, REDD A Collection of Conflicts, Contradictions and Lies
<sup>cdli</sup> World Bank. Forest Carbon Partnership Facility. https://www.forestcarbonpartnership.org/
cdii World Bank, World Bank Forest Carbon Facility Partnership, Annual Report, 2021.
https://www.forestcarbonoartnership.org/system/files/documents/fcof 2021 annual report websnol fol 1 13 2022.pdf
<sup>cdliii</sup> Ibid, p. 10
cdliv Ibid. p. 11.
cdlv Ibid. p. 14.
cdlvi Ask Numbers, https://www.asknumbers.com/hectare-to-square-mile.aspx
110000000 Hectares =424712.3745 Square Miles
cdivii Nation Master. Geography, Land Area, Square Miles: Countires Compared. https://www.nationmaster.com/country-
info/stats/Geography/Land-area/Square-miles
cdlviii Nation Master. Bolivia. Comparative. https://www.nationmaster.com/country-info/profiles/Bolivia/Geography
<sup>cdlix</sup> World Bank. Climate Finance and Initiatives.
August 14, 2019, https://www.worldbank.org/en/topic/climatechange/brief/world-bank-carbon-funds-facilities
<sup>cdlx</sup> World Bank. BioCarbon Fund. Initiative for Sustainable Forest Landscapes. Programs. https://www.biocarbonfund-isfl.org/programs
colki Governors' Climate and Forests Task Force, https://gcftf.org/about//Accessed July 20, 20187
"GCF Task Force is a sub-national collaboration between 38 states and provinces from Brazil, Colombia, Ecuador, Indonesia, Ivory Coast, Mexico,
Nigeria, Peru, Spain, and the United States. The Task Force is designed to support jurisdictional approaches to low emissions rural development
and reduced emissions from deforestation and land use (REDD+), specifically through performance-based payment schemes and national or state-
based greenhouse gas (GHG) compliance regimes. The Task Force was initiated by former California Governor Arnold Schwarzenegger on November
18. 2008"
cdlxii Governors Climate and Forest Taskforce. https://www.gcftf.org/ [Accessed January 10, 2022.]
cdlxiii Governors Climate. and Forest Taskforce. https://www.gcftf.org/
"Protecting forests, reducing emissions, and enhancing livelihoods across 1/3 of the world's tropical forests."
cdlxiv Governors Climate and Forest Taskforce. https://www.gcftf.org/who-we-are/member-states/
<sup>cdlxv</sup> Ibid.
```



cdlxvi NBC. "Richmond Refinery Explosion sends residents to hospital Years After Massive Fire, Chevron Refinery Still Being Cited for Safety Violations - 15,000 East Bay residents went to the hospital". August 3, 2017. https://www.nbcbayarea.com/news/local/years-after-massive-fire-chevron-

refinery-still-being-cited-for-safety-violations/28078/

reduvii Reuters Point Carbon, Shell to buy 500,000 California forest carbon credits http://www.pointcarbon.com/news/1.2224348

cdlwiii California Air Resources Board. U.S. Forest Projects – June 25, 2015. https://ww2.arb.ca.gov/our-work/programs/compliance-offset-program/compliance-offset-projects/2015

colision California Air Resources Board. Urban Forest Projects. https://ww2.arb.ca.gov/our-work/programs/compliance-offset-program/compliance-offset-projects.

cdlxx Western Climate Initiative. Jurisdiction Agreements. https://wci-inc.org/documents/jurisdiction-agreements

^{cdlxxi} Government of Québec. Ministry of the Environment. Carbon Market. Western Climate Initiative.

https://www.environnement.gouv.qc.ca/changements/carbone/WCl-en.htm

^{cdlxxii} lbid.

collowiii Center for Biological Diversity. "California Board Endorses Forest Clearcutting in Fight Against Global Warming". December 17, 2010.

https://www.biologicaldiversity.org/news/press_releases/2010/clearcutting-credits-12-17-2010.html

cdlxxiv Al Jazeera. Manuela Picq. "Will California fall into the REDD trap?". May 5, 2013.

https://www.aljazeera.com/indepth/opinion/2013/05/20135613232989660.html [Accessed July 20, 2018]

cdlxxv Indigenous Environmental Network. "Xapuri Declaration". May 28, 2017.

http://www.ienearth.org/xapuri-declaration-we-reject-any-form-of-climate-colonialism/ [Accessed July 28, 2018]

collection of Collection
Coll

collowii Sky Protector. "Carbon colonialism to increase pollution and grab land". 2018. http://skyprotector.org/2018/09/01/sky-protector-briefing-paper-5/

collusviii La Via Campesina. Climate: Real problem, false solution- No. 3 – REDD. December 2, 2015. https://viacampesina.org/en/climate-real-problem-false-solutions-no-3-redd/

collective REDD Monitor, "No REDD in Africa Network opposes inclusion of REDD Offsets in California's Cap-and-Trade". April 4, 2013. http://www.redd-monitor.org/2013/05/04/no-redd-in-africa-network-opposes-inclusion-of-redd-offsets-in-californias-cap-and-trade-scheme/ [Accessed July 28, 2018]

cdlxxx REDD Monitor. "Launch of No REDD in Africa Network". April 3, 2013. https://redd-monitor.org/2013/04/03/launch-of-no-redd-in-africa-network-redd-could-cause-genocide/

collection of Africa Network. Stopping the Continent Grab and the REDD-ification of Africa. Daraja Press. 2016. http://no-redd.com/wp-content/uploads/2016/11/REDDinAfricaNetwork.pdf [Accessed July 28, 2018]

collocation indigenous Environmental Network. "International Outcry against California's Forest Offset Scam". May 8, 2013. http://www.ienearth.org/international-outcry-against-californias-forest-offset-scam/ [Accessed July 28, 2018]

cdloxxiii CNN. Ivana Kottasová. Photos by Tyson Scott "'We're not just somebody to look at.' Sidelined groups complain of racial tokenism at COP26 climate talks"

https://www.cnn.com/2021/11/09/world/cop26-climate-talks-race-intl/index.html

cdlooxiv REDD Monitor, "Just what REDD Needed. Carbon Offsets and another Abbreviation. Welcome R-20". November 19, 2010.

http://www.redd-monitor.org/2010/11/19/just-what-redd-needed-carbon-offsets-and-another-abbreviation-welcome-to-r20/#more-6500 [Accessed July 28, 2018]

colloword Governors' Climate and Forest Taskforce Database. Acre, Brazil. "Acre Rubber Purchase Agreement - Folha Desfumada Liquida." (no date.)
http://www.gcftaskforce-database.org/Partnerships/brazil.acre /Accessed July 28, 20187

"Description: The company VERT / VEJA has agreed to 10 year purchase agreement native rubber (Liquid smoke sheet-FDL) from extractavists in Acre. In total a 90 tonne purchase agreement from sustainable rubber extractivists through 2020.PartnersEmpresa VERT/VEJA (France) Veja Sneakers Initiative Type: Private investment, Preferential sourcing Initiative Status30 tonnes purchased"

collusivi REDD Monitor. "Xapuri Declaration: We reject any form of climate colonialism". June 20, 2017. http://www.redd-monitor.org/2017/06/20/xapuri-declaration-we-reject-any-form-of-climate-colonialism/ [Accessed August 1, 2018]

^{cdlxxxvii} Ibid.

^{cdlxxxviii} lbid.

cdlxxxix REDD Monitor. "REDD on trial: 'As long as nature is seen as property in the law, there can be no justice for communities, the climate or Nature'". December 11, 1014. https://www.redd-monitor.org/2014/12/11/redd-on-trial-as-long-as-nature-is-seen-as-property-in-law-there-can-be-no-justice-for-communities-the-climate-or-nature/ [Accessed August 1, 2018]

"Ninawa has received death threats for opposing REDD."



cóx REDD Monitor. "Xapuri Declaration: We reject any form of climate colonialism". June 20, 2017. http://www.redd-monitor.org/2017/06/20/xapuri-declaration-wereject-any-form-of-climate-colonialism/ [Accessed August 1, 2018]

cdxci REDD Monitor. "'We reject REDD in all its versions.' Letter from Chiapas, Mexico opposing REDD in California's Global Warming Act AB32". April 30, 2013. http://www.redd-monitor.org/2013/04/30/we-reject-redd-in-all-its-versions-letter-from-chiapas-mexico-opposino-redd-in-all-its-version-redd-in-all-its-version-redd-in-all-its-version-redd-in-all-its-version-redd-in-all-its-version-redd-in-all-its-version-redd-in-all-i californias-global-warming-solutions-act-ab-32/ [Accessed August 1, 2018]

cdxcii REDD Monitor, "Statement from Chiapas, Mexico", Sept. 7, 2011, http://www.redd-monitor.org/2011/09/07/statement-from-chiapas-mexicoredd-project-is-a-climate-mask-to-cover-up-the-dispossession-of-the-biodiversity-of-the-peoples/[Accessed July 28, 2018]

Environmental Justice Atlas. REDD in the Lacandon Jungle, Chiapas, Mexico https://ejatlas.org/conflict/redd-pilot-lacandon-jungle-chiapas-mexico [Accessed July 28, 2018]

cdxciii REDD Monitor. "Californian REDD in Acre and Chiapas: Legalizing Mechanism of Dispossession". January 26, 2018. http://www.reddmonitor.org/2018/01/26/californian-redd-in-acre-and-chiapas-legalising-mechanisms-of-dispossession/ /Accessed August 5, 20181

educiv Friends of the Earth, Fabrina Furtado. "The Carbon Market And California-Acre-Chiapas Cooperation: Redd+ Legalizing Mechanisms Of Dispossession". June 2017. file:///T:/Downloads/REDD The-carbon-market-and-the-California-Acre-Chiapas-cooperation.pdf (Accessed August 5, 20181

cdxcv Ibid.

cdxcvi lhid.

cdxcvii Climate Connections, "Environmental, Indigenous Peoples and Human Rights Groups Reject International Offsets in California's Global Warming Solutions Act". August 23, 2011. http://climate-connections.org/2011/08/23/environmental-indigenous-peoples-and-human-rights-groups-rejectinternational-offsets-in-californias-global-warming-solutions-act/ [Accessed August 5, 2018]

cdxcviii PBS/Frontline World, Carbon Watch, Centre for Investigative Journalism

http://www.pbs.org/frontlineworld/stories/carbonwatch/moneytree/ [Accessed August 5, 2018]

REDD Monitor, "Injustice on the carbon frontier in Guaraqueçaba, Brazil". November 6, 2009.

http://www.redd-monitor.org/2009/11/06/injustice-on-the-carbon-frontier-in-guaraquecaba-brazil/ [Accessed August 5, 2018]

Mother Jones, Marc Schapiro. "GM's Money Trees". November 2009. http://motherjones.com/environment/2009/11/gms-money-trees [Accessed] August 5, 20181

cdxcix World Rainforest Movement. "Forest of deforestation and persecution of local communities". http://wrm.org.uy/

d Milieudefensie. Friends of the Earth – Netherlands. Jutta Kill and Simon Counsel. "How Shell is using Nature-Based Solutionsto continue its fossil fuel agenda". October 2022. https://en.milieudefensie.nl/news/shells-pipe-dream

di Nature-based Dispossession. March 2022. https://greencloud.gn.apc.org/index.php/s/2XrdY5dx9W4EACw

dii World Rainforest Movement. Press Release: "No to Nature Based Solutions!". March 10, 2022.

diii Ibid.

div Joint Position Paper from Climate Justice CSOs in Africa, to governments of Africa, attending the 26th Conference of Parties to the United Nations Framework Convention on Climate Change in Glasgow. November 2022.

dv U.S. Congress. H.Res.109 - Recognizing the duty of the Federal Government to create a Green New Deal. 116th Congress (2019-2020). https://www.congress.gov/bill/116th-congress/house-resolution/109/text

dvi Morning Consult. Jaqueline Toth. "Ocasio-Cortez: Green New Deal 'Leaves the Door Open' on Nuclear". May 6, 2019.

https://morningconsult.com/2019/05/06/ocasio-cortez-green-new-deal-leaves-door-open-nuclear/

dvii United Nations Environmental Program. Edward Barbier. "A Global Green New Deal: Rethinking the Economic Recovery". 2009. Cambridge. https://www.bookdepository.com/Global-Green-New-Deal-Edward-Barbier/9780521763097 (Accessed March 21, 2019)

Global Green New Deal Policy Brief. Slide Share. April 25, 2009. https://www.slideshare.net/dabydeen/global-green-new-deal-policy-brief [Accessed March 21, 2019]

dviii Oxfam. Nafkote Dabi and Aditi Sen "Tightening the Net: Net zero climate targets – implications for land and food equity". August 3, 2021. https://policypractice.oxfam.org/resources/tightening-the-net-net-zero-climate-targets-implications-for-land-and-food-equ-621205/
dix The Guardian. Maanvi Singh. "We're going to need a bigger planet: the problem with fixing the climate with trees". November 13, 2021.

https://www.theguardian.com/environment/2021/nov/13/the-problem-with-fixing-the-climate-with-trees-were-going-to-need-a-bigger-planet dx Oxfam. Nafkote Dabi and Aditi Sen "Tightening the Net: Net zero climate targets – implications for land and food equity". August 3, 2021. https://policypractice.oxfam.org/resources/tightening-the-net-net-zero-climate-targets-implications-for-land-and-food-eou-621205/

dxii The Guardian. Mathew Taylor, Johnathan Watts. "Revealed: 20 firms behind a third of all carbon emissions". October 9, 2019.

https://www.theguardian.com/environment/2019/oct/09/revealed-20-firms-third-carbon-emissions

dxiii Carbon Brief. Josh Gabbatiss. "Analysis: Shell says new Brazil-sized forest would be needed to meet 1.5C climate goal". February 12, 2021. https://www.carbonbrief.org/analysis-shell-says-new-brazil-sized-forest-would-be-needed-to-meet-1-5c-climate-ooal dxiv Ibid.



dxv See, for example, Government of New Zealand. Ministry of Primary Industries. "GLOSSARY FOR THE EMISSIONS TRADING SCHEME FACTSHEETS". https://mpi.govt.nz/dmsdocument/6971-glossary-for-the-ets-factsheets

HARVESTING Harvesting occurs when forest land is cleared and in the future new seedlings are either planted or naturally regenerate. There is no change in land-use; the forest land is considered to be temporarily unstocked. There is a time limit for how long harvested land may be temporarily unstocked before it is deemed deforested (see Deforestation above).

dwi Shell Energy. Carbon Credits including Nature Based Solutions. https://www.shellenergy.com/products-and-services/renewable-solutions/

dwii Milieudefensie. Friends of the Earth – Netherlands. Jutta Kill and Simon Counsel. "How Shell is using Nature-Based Solutionsto continue its fossil fuel agenda". October 2022. https://en.milieudefensie.nl/news/shells-pipe-dream

dxviii Shell Oil. "Shell invests in nature as part of broad drive to tackle CO2 emissions". April 8, 2019. https://www.shell.com/media/news-and-media-releases/2019/shell-invests-in-nature-to-tackle-co2-emissions.html

https://www.shell.com/media/news-and-media-releases/2019/shell-invests-in-nature-to-tackle-co2-

 $emissions.html\#: \sim : text = Shell\%20 today\%20 announces\%20 a\%20 programme, over\%20 the\%20 next\%20 three\%20 years.$

Shell. Nature-based Solutions. https://www.shell.com/energy-and-innovation/new-energies/nature-based-solutions.html#vanity-aHROcHM6Ly93d3cuc2hlbGwuY29tL25hdHVyZWJhc2Vkc29sdXRpb25zLmhObWw

Shell. Nature-based Solutions. What Projects do we work with? https://www.shell.com/energy-and-innovation/new-energies/nature-based-solutions.html#projects-do-we-work

Shell. Environmental Products. https://www.shell.com/shellenergy/othersolutions/welcome-to-shell-environmental-products.html

Shell. Portfolio of Emissions Reduction Projects. Map. https://www.shell.com/shellenergy/othersolutions/welcome-to-shell-environmental-products/shell-olobal-portfolio-of-emissions-reduction-projects.html#iframe=L3dlYmFwcHMvMiAxOV9FUFRCLw

 $Shell.\ The\ Guatemalan\ Conservation\ Coast.\ \underline{https://www.shell.com/shellenergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-planergy/othersolutions/welcome-to-shell-environmental-products/shell-environme$

 $\label{lem:shell_com_shell_com_shell_com_shell_com_shell_energy/othersolutions/welcome-to-shell-environmental-products/shell-global-portfolio-of-emissions-reduction-projects.html#iframe=L3dlYmFwcHMvMjAxOV9FUFRCLw$

Shell. Nicaragua. Amayo Wind Farm. Phase II. https://www.shell.com/shellenergy/othersolutions/welcome-to-shell-environmental-products/shell-global-portfolio-of-emissions-reduction-projects.html#iframe=L3dlYmFwcHMvMjAxDV9FUFRCLw

Shell. Products and Services. Renewable Solutions. Renewable Energy Credits.

https://shellenergy.com/business/products-and-services/renewable-solutions/renewable-energy-certificates

Shell. Cargill and Ardent Mills move to Renewables. https://shellenergy.com/business/energy-insights/cargill-and-ardent-mills-move-to-renewables/

dxix Ibid.

dxx Shell Global. Portfolio of Emissions Reduction Projects. Map. Peru. Cordillera Azul National Park.

 $\frac{\text{https://www.shell.com/shellenergy/othersolutions/welcome-to-shell-environmental-products/shell-global-portfolio-of-emissions-reduction-projects.html#iframe=L3dIYmFwcHMvMjAxOV9FUFRCLw}{}$



dxxi Shell Global. Portfolio of Emissions Reduction Projects. Map. Indonesia. Katingan Mentaya Project.

 $\frac{\text{https://www.shell.com/shellenergy/othersolutions/welcome-to-shell-environmental-products/shell-global-portfolio-of-emissions-reduction-projects.html#iframe=L3dIYmFwcHMvMjAxOV9FUFRCLw}{}$





REDD Monitor. Indonesia's Katingan REDD project sells carbon credits to Shell. But that doesn't mean the forest is protected. It's threatened by land conflicts, fires and a palm oil plantation | REDD-Monitor December 12, 2019.



doxii American Carbon Registry. "GreenTrees is First Forestry Project Approved by American Carbon Registry". February 16, 2010. GreenTrees is First Forestry Project Approved by American Carbon Registry — American Carbon Registry

dxxiii Shell Global. Nature-based solutions.

Nature-based solutions | Shell Global

https://www.shell.com > new-energies > nature-based-solu...

We work with projects around the world that help reduce CO2 emissions, while improving the lives of local communities and protecting biodiversity. [Accessed April 17, 2022]

[Accessed April 17, 2022]

dxiv Forest Peoples Program. "Press Release: Indigenous Kichwa Community take Peruvian State and National Park to Court". July1, 2021.

https://www.forestpeoples.org/en/press-release/kichwa-take-Peru-state-PNAZ-court

dxxv REDD Monitor. Chris Lang. "Indigenous Kichwa community takes the Peruvian State and Cordillera Azul National Park to court". July 2, 2021.

https://redd-monitor.org/2021/07/02/indigenous-kichwa-community-takes-the-peruvian-state-and-cordillera-azul-national-park-to-court/

dxxvi Centro de Conservación, Investigación y Manejo de Areas Naturales – Cordillera Azul. 2012 Climate Monitoring Report. "Cordillera Azul National Park Redd Project". November 30, 2012.

https://s3.amazonaws.com/CCBA/Projects/Cordillera_Azul_National_Park_REDD_project/Verification/Verified/Updated/2012ClimateMonitoringReport.pdf

dxxvii David Hill. "One of Shell's Amazon carbon offsets projects raises serious human rights concerns". December 15, 2021.

https://hilldavid.substack.com/p/one-of-shells-amazon-carbon-offsets?s=r

dxxviii Centro de Conservación, Investigación y Manejo de Areas Naturales – Cordillera Azul. "Cordillera Azul National Park Redd Project".

https://s3.amazonaws.com/CCBA/Projects/Cordillera Azul National Park REDD project/PNCAZPDDVCSV3September62012.pdf

doxix REDD Monitor. Chris Lang. "Indigenous Kichwa community takes the Peruvian State and Cordillera Azul National Park to court". July 2, 2021.

 $\underline{\text{https://redd-monitor.org/2021/07/02/indigenous-kichwa-community-takes-the-peruvian-state-and-cordillera-azul-national-park-to-court/lineary-line$

dxxx SourceMaterial. "Shell 'Drive Carbon Neutral' claims in doubt after forest scrutiny". October 25, 2021.

https://www.source-material.org/blog/shell-drive-carbon-neutral-claims-in-doubt-after-forest-scrutiny

Also see Bloomberg News. Jess Shankleman. "Shell's Carbon Offset Claims Show Task Ahead for UN Climate Talks". October 25, 2021. https://www.bloomberg.com/news/articles/2021-10-25/shell-s-carbon-offset-claims-show-task-ahead-for-un-climate-talks

dxxxi Pipeline and Gas Journal. "Chevron Launches its First Carbon Offset Project in Louisiana". March 29, 2022.

https://pgjonline.com/news/2022/march/chevron-launches-its-first-carbon-offset-project-in-louisiana

The project will bring together Chevron and Restore the Earth Foundation to develop a nature-based solution, which is expected to remove carbon from the atmosphere and be focused on reforesting natural cypress forests and swamps in St. Charles Parish. Chevron will provide funding for Restore the Earth to plant an expected 1.7 million native bald cypress seedlings as part of the project.

doxii Chevron. Press Release: "Chevron and Restore the Earth Foundation agree to collaborate on carbon offsets reforestation project in Louisiana".

March 28, 2022. https://www.chevron.com/stories/chevron-and-restore-the-earth-foundation-agree-to-collaborate-on-carbon-offsets-reforestation

dxxxiii Idna G. Castellón. "Cancer Alley and the Fight Against Environmental Racism". 32 Vill. Envtl. L.J. 15 (2021).

https://digitalcommons.law.villanova.edu/elj/vol32/iss1/2

dxxxiv Amazon Watch. Carlos Mazabanda. "ENI-AGIP Dil Project Threatens Indigenous Territories in the Ecuadorian Amazon". May 30, 2018. https://amazonwatch.org/news/2018/0530-eni-agip-oil-project-threatens-indigenous-territories-in-the-ecuadorian-amazon Accessed March 23, 2019

dxxxv Friends of the Earth- Europe. "Nigerian communities sues Eni". May 4, 2017. http://www.foeeurope.org/nigerian-community-sues-italian-oil-giant-040517. Accessed March 21, 2019

doxxvi Edie Net. "Dil giant Eni targets net-zero carbon emissions by 2030". 19 March 2019. Dil giant Eni targets net-zero carbon emissions by 2030 Accessed March 21, 2019

dxxxvii Eni. Eni's strategy on climate change. https://www.eni.com/en-IT/low-carbon/strategy-climate-change.html

dxxxviii REDD Monitor. "Oil company Eniplans 8.1 million hectare land grab in Africa for carbon offset plantations". March 17, 2019. https://redd-monitor.org/2019/03/17/oil-company-eni-plans-8-1-million-hectare-land-grab-in-africa-for-carbon-offset-plantations/ Accessed March 23, 2019
Eni wants to use 8.1 million hectares for plantations. The size of South Carolina is 8.2 million hectares.

dxxxix REDD Monitor. "Oil company Eni plans 8.1 million hectare land grab in Africa for carbon offset plantations". March 17, 2019. https://redd-monitor.org/2019/03/17/oil-company-eni-plans-8-1-million-hectare-land-grab-in-africa-for-carbon-offset-plantations/ Accessed March 23, 2019

dxl REDD Monitor. "NGOs oppose the oil industry's natural climate solutions and demand that Eni and Shell keep fossil fuels in the ground. May 14, 2019. https://redd-monitor.org/2019/05/14/ngos-oppose-the-oil-industrys-natural-climate-solutions-and-demand-that-eni-and-shell-keep-fossil-fuels-in-the-ground/

dali Trillion Tree Campaign. It.org Corporate Alliance members. https://www.lt.org/commitments-and-members



description of the Earth: It.org Announced to Accelerate Nature Restoration to Tackle Climate and Biodiversity Crises". January 21, 2020. https://www.weforum.org/press/2020/01/restoring-the-earth-lt-org-announced-to-accelerate-nature-restoration-to-tackle-climate-and-biodiversity-crises

dxliii Ibid.

dxliv Ibid.

ddv NPR. "I don't think science knows – Visiting fires Trump denies climate change". September 14, 2020.

https://www.npr.org/2020/09/14/912799501/i-don-t-think-science-knows-visiting-fires-trump-denies-climate-change

dalvi The Guardian. Fiona Harvey. "Trump hails Itn trees plan but ignores roots of problem". January 21, 2020.

https://www.theguardian.com/environment/2020/jan/21/trump-hails-ltn-trees-plan-but-ignores-roots-of-problem

ddvii REDD Monitor. "Jane Goodall Institute's REDD project in Tanzania: A totalitarian approach to conservation that led to increased inequity, undermining of democracy, and violent evictions". April 6, 2018.

https://redd-monitor.org/2018/04/06/jane-goodall-institutes-redd-project-in-tanzania-a-totalitarian-approach-to-conservation-that-led-to-increased-inequity-undermining-of-democracy-and-violent-evictions/

deliviii Emma Jane Lord. "Displacement, Power and REDD+: A Forest History of Carbonized Exclusion". In: E. Nuesiri (eds). Global Forest Governance and Climate Change. Palgrave Studies in Natural Resource Management. Palgrave Macmillan, Cham. 2018. https://doi.org/10.1007/978-3-319-71946-7 5 dxlix Mongabay. "Jane Goodall launches effort in support of planting 1 trillion trees by 2030". September 23, 2021.

https://news.mongabay.com/2021/09/jane-goodall-launches-effort-in-support-of-planting-1-trillion-trees-by-2030/

dl lhid

di REDD Monitor. "Greenpeace rejects the One Trillion Trees Campaign". March 20, 2020.

https://redd-monitor.org/2020/03/20/greenpeace-rejects-the-one-trillion-trees-campaign-treewashing-the-climate-crisis-with-promises-of-

| arge-tree-plantations/

dii lan Scoones. "Why planting trees won't help solve the climate crisis". October 15, 2021. https://steps-centre.org/blog/carbon-offsetting-tree-planting-climate-crisis/

diii World Rainforest Movement. Tree Plantations. https://www.wrm.org.uy/subjects/tree-plantations

div BBC News. Matt Mc Grath. Climate change: Planting new forests 'can do more harm than good' - BBC News June 20, 2020.

^{div} Mongabay. "Jane Goodall launches effort in support of planting 1 trillion trees by 2030". September 23, 2021.

https://news.mongabay.com/2021/09/jane-goodall-launches-effort-in-support-of-planting-1-trillion-trees-by-2030/

divi Metro News. Jonathan Soll. *Can planting a trillion trees save our planet?*. March 10, 2020.

https://www.oregonmetro.gov/news/power-trees

divii NPR. Stacy Vanek Smith. "The U.S. Has Nearly 1.9 Billion Acres Of Land. Here's How It Is Used". July 26, 2019.

https://www.npr.org/2019/07/26/745731823/the-u-s-has-nearly-1-9-billion-acres-of-land-heres-how-it-is-used

dviii Mapped: Visualizing the True Size of Africa. https://www.visualcapitalist.com/map-true-size-of-africa/

dix Unit Converters.Net https://www.unitconverters.net/area/square-miles-to-acres.htm

11700000 square miles = 7488000000 acres

dlx Science. Jean-Francois Bastin *et al.* "The global tree restoration potential". July 5, 2019. https://www.science.org/doi/10.1126/science.aax0848 "Bastin *et al.* used direct measurements of forest cover to generate a model of forest restoration potential across the globe (see the Perspective by Chazdon and Brancalion). Their spatially explicit maps **show how much additional tree cover could exist outside of existing forests and agricultural and urban land." [Emphasis added.]**

dixi UN-REDD. Tim Christophersen. "What would it really take to plant a trillion trees?". September 2, 2019. https://www.un-redd.org/news/what-would-it-really-take-plant-trillion-trees

dxii Landscape News. Gabrielle Lipton. "100 million hectares of land in Africa under restoration by 2030". November 27, 2018.

https://news.globallandscapesforum.org/31279/100-million-hectares-in-africa-under-restoration-by-2030/

diviii WWF. "Global Reforestation Potential - Opportunities for forest restoration on degraded lands". 2018.

https://www.arcgis.com/home/item.html?id=c529c9ebIdfI40859da92f560ef4bf70

dlxiv Trillion Trees. https://trilliontrees.org/

dix The Guardian. Maanvi Singh. "We're going to need a bigger planet: the problem with fixing the climate with trees". November 13, 2021.

https://www.theguardian.com/environment/2021/nov/13/the-problem-with-fixing-the-climate-with-trees-were-going-to-need-a-bigger-planet

dlxvi Science. Andres K. Skidmore *et al.* "Comment on 'The global tree restoration potential'. 2019.

https://www.science.org/doi/pdf/10.1126/science.aaz0111



dixvii The Guardian. Maanvi Singh. "We're going to need a bigger planet: the problem with fixing the climate with trees". November 13, 2021.

 $\underline{\text{https://www.theguardian.com/environment/2021/nov/13/the-problem-with-fixing-the-climate-with-trees-were-going-to-need-a-bigger-planet}$

dixiii Usman Ashraf. "Marginalized by Conservation: The Billion Tree Tsunami Project". February 2018.

(PDF) Marginalized by Conservation: The Billion Tree Tsunami Project (researchgate.net)

dxix Sunny Skyz. "Planes can Plant 1 Billion Trees a Year with Seed Bombs". May 5, 2016. https://www.sunnyskyz.com/blog/1467/Planes-Can-Plant-1-Billion-Trees-A-Year-With-Seed-

 $\underline{Bombs\#:} \sim : text = Using \%20old \%20 reconditioned \%20 military \%20 planes, been \%20 devastated \%20 by \%20 commercial \%20 logging. \\ \underline{Stext = The \%20 proposed \%20 program \%20 uses \%20 some, over \%20 logging. \\ \underline{Stext = The \%20 proposed \%20 program \%20 uses \%20 some, over \%20 logging. \\ \underline{Stext = The \%20 proposed \%20 pro$

dixx The Guardian, Paul Brown, "Aerial bombardment to reforest the earth", September 1, 1999.

https://www.theguardian.com/uk/1999/sep/02/paulbrown

dixi World Economic Forum. "These seed-firing drones plant thousands of trees each day | Pioneers for Our Planet". December 4, 2019.

https://www.youtube.com/watch?v=nXophqU-rp4

dlxxii Global Justice Ecology Project. New Statement: Genetically Engineered Trees: No Solution to Climate Change - Global Justice Ecology Project

dixiv Living Carbon. Our Work. Carbon Projects. https://www.livingcarbon.com/our-work/carbon-projects "Degraded Mine Land. Zion Grove, Pennsylvania. 300 acres."

dlxxv The Guardian. John Vidal. "The GM tree plantations bred to satisfy the world's energy needs". November 15, 2012.

https://www.theguardian.com/environment/2012/nov/15/gm-trees-bred-world-energy

dixxi Autumn in Huizhou. "More GE Trees "No Threat' to Environment". April 1, 2005. http://www.china.org.cn/english/environment/124471.htm

dixxii Science. Gabriel Popkin. "To fight climate change, a biotech firm has genetically engineered a very peppy poplar". February 23, 2022. To fight climate change, a biotech firm has genetically engineered a very peppy poplar | Science | AAAS

dlxxviii Living Carbon. Plants Enhanced for Carbon Capture and Storage. https://www.livingcarbon.com/

"We incorporated a photosynthesis enhancement trait to help trees grow faster."

dkxix Living Carbon. Plants Enhanced for Carbon Capture and Storage. https://www.livingcarbon.com/

dlxxx Living Carbon. Manifesto. https://www.livingcarbon.com/about/manifesto

dlxxxi Living Carbon. Our Work. Carbon Projects. https://www.livingcarbon.com/our-work/carbon-projects "Degraded Mine Land. Zion Grove,

Pennsylvania. 300 acres."

dlxxxii Anne Petermann. Global Justice Ecology Project. Interview with author. May 4, 2022.

dlxxxiii Living Carbon powerpoint slide.

dlxxxiv Living Carbon powerpoint slide.

^{dlxxxv} FuturaGene. <u>FuturaGene</u>

dbooxi The Guardian. John Vidal. "The GM tree plantations bred to satisfy the world's energy needs". November 15, 2012.

https://www.theguardian.com/environment/2012/nov/15/gm-trees-bred-world-energy

dlxxxvii Ibid.

dlxxxviii Ibid.

dixxix Bt refers to the genetically engineered insertion of Cry toxins of the Bacillus thuringiensis (Bt) bacterium to corn to make it resistant to some insect pests.

Egyptian Journal of Biological Pest Control. Abbas, M.S.T. Genetically engineered (modified) crops ($Bacillus\ thuringiensis\ crops$) and the world controversy on their safety. **28**, 52 (2018). https://doi.org/10.1186/s41938-018-0051-2

https://ejbpc.springeropen.com/articles/10.1186/s41938-018-0051-2

dxc Mother Jones. Tom Philpott. "Researchers: GM crops killing monarch butterflies, after all". March 21, 2012.

https://www.motheriones.com/food/2012/03/researchers-om-crops-are-killing-monarch-butterflies-after-all/

dxci World Rainforest Movement. Chris Lang. "Climate Change: Hot air, fake science and genetically-modified trees". March 11, 2004.

https://www.wrm.org.uy/other-information/climate-change-hot-air-fake-science-and-genetically-modified-trees

descrit Science Daily. National Evolutionary Synthesis Center (NESCent). "Far-flung pine pollen still potent miles from the tree: Long-lived pine pollen might hinder containing transgenic trees". April 7, 2010.

 $\frac{\text{https://www.sciencedaily.com/releases/2010/04/100405091943.htm\#:\sim:text=0nce\%20windborne\%2C\%20pollen\%20is\%20exposed,of\%20time\%20\%20\%20\%20windbornew20windbornew20windborn$

dxciii UNFCCC. COP9. SUBSTA. https://unfccc.int/cop9/latest/sbsta 127.pdf

"Recognizing that host Parties evaluate, in accordance with their national laws, potential risks associated with the use of genetically modified organisms by afforestation and reforestation project activities and that Parties included in Annex I evaluate, in accordance with their national laws, the use of temporary certified emission reductions and/or long-term certified emission reductions generated from afforestation and reforestation project activities that make use of genetically modified organisms."



```
<sup>dxciv</sup> Futura Gene. Suzano Relationship – FuturaGene
```

dxcvi Biofilica. REDD+. https://www.biofilica.com.br/en/redd/#reddproject

dxcvii Biofilica. About Us. https://www.biofilica.com.br/en/biofilica/

"Founded in 2008, Biofilica is a Brazilian company focused on the management and conservation of native forest through the commercialization of carbon offsets and the compensation of legal reserves."

dxcviii Anne Petermann. Interview with author. May 4, 2022.

dxcix Bloomberg. Nikki Epstein. "Carbon Offsets Won't Be Travel's Saving Grace. November 18, 2019.

https://www.bloomberg.com/news/articles/2019-11-18/how-carbon-credits-work-why-flight-offsets-won-t-redeem-travel

dc Unearthed. Joe Sandler Clarke and Luke Barratt. "Top airlines' promises to offset flights rely on 'phantom credits'". May 4, 2021.

https://unearthed.greenpeace.org/2021/05/04/carbon-offsetting-british-airways-easyjet-verra/

dei Delta. Staff Writer, December 19, 2019. https://news.delta.com/soar-sustainably-travel-carbon-neutral-new-options-deltas-upgraded-carbon-calculator

^{dcii} Ibid.

deiii REDD Monitor. Chris Lang. "Fortress conservation in Wildlife Alliance's Southern Cardamom REDD+ Project: evictions, violence, and burning people's homes. "We're proud of our work. The forest, the wildlife, you come to feel they're yours". July 13, 2021. https://redd-monitor.org/2021/07/13/fortress-conservation-in-wildlife-alliances-southern-cardamom-redd-project-evictions-violence-and-burning-peoples-

homes-were-proud-of-our-work-the-forest-the-wildlife-you-come-to-feel/
deiv REDD Monitor. Chris Lang. "Roots of inequity in Wildlife Works' Kasigua Corridor REDD Project". January 14, 2016. https://redd-monitor.org/2016/01/14/roots-of-inequity-in-wildlife-works-kasigau-corridor-redd-project/

"The researchers found that members of the Waduruma ethnic group were evicted from Rukinga in 2002."

dcv ScienceDirect. Susan Chomba *et al.* "Roots of inequity: How the implementation of REDD+ reinforces past injustices". Land Use Policy, Volume 50, 2016. Pages 202-213. ISSN 0264-8377,

https://doi.org/10.1016/j.landusepol.2015.09.021 https://www.sciencedirect.com/science/article/pii/S0264837715002926

devi REDD Monitor. Chris Lang. "Madre de Dios Amazon REDD Project: easyJet's phantom carbon credits are generated by logging the forest". May 14, 2021. https://redd-monitor.org/2021/05/14/madre-de-dios-amazon-redd-project-easyjets-phantom-carbon-credits-are-generated-by-logging-the-forest/

devii REDD Monitor. Chris Lang. "Ecomapuá Amazon REDD Project, Brazil:". May 9, 2022.

 $\frac{\text{https://redd-monitor.org/2022/05/09/ecomapua-amazon-redd-project-brazil-publica-investigation-reveals-ecomapua-conservacao-is-selling-illegal-carbon-offsets-from-land-it-does-not-own-without-transferring-the-money-to-local-commun/}{}$

deviii The Guardian. Patrick Greenfield. "Carbon offsets used by major airlines based on flawed system, warn experts". May 4, 2021.

https://www.theguardian.com/environment/2021/may/04/carbon-offsets-used-by-major-airlines-based-on-flawed-system-warn-experts

dcix Financial Times. Camilla Cavendish. "Carbon offset goldrush is distracting us from climate change". November 22, 2019.

https://www.ft.com/content/e2000050-0c7f-11ea-bb52-34c8d9dc6d84

dex The Guardian. Damian Gayle. "Just one of 50 aviation industry climate targets met, study finds". May 10, 2022.

 $\underline{https://www.theguardian.com/environment/2022/may/10/just-one-of-50-aviation-industry-climate-targets-met-study-finds$

dexi Policy Options. Ryan Katz-Rosene. "Carbon offsets are no fix for aviation's climate problem". March 9, 2022.

https://policyoptions.irpp.org/magazines/carbon-offsets-are-no-fix-for-aviations-climate-problem/

dexii ICAO. CORSIA. Buddy Partnerships. https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Buddy-Partnerships.aspx

dexiii International Civil Aviation Organization. Carbon Offsetting and Emissions Reduction Scheme. "CORSIA 2020 Emissions". November 2021.

https://www.icao.int/environmental-protection/CORSIA/Documents/CORSIA%202020%20Emissions Nov2021 web.pdf

dexiv New York Times. C. Clairborne Ray. "Tree Power". December 3, 2012. https://www.nytimes.com/2012/12/04/science/how-many-pounds-of-carbon-dioxide-does-our-forest-absorb.html

dex Nation Master. Land area in square miles. Ireland. https://www.nationmaster.com/country-info/stats/Geography/Land-area/Square-miles

dexvi World Rainforest Movement. "Aviation and false solutions: The farce of the "Florestal Santa Maria" REDD project in Mato Grosso, Brazil". June 14, 2018.

 $\frac{\text{https://wrm.org.uy/books-and-briefings/aviation-and-false-solutions-the-farce-of-the-florestal-santa-maria-redd-project-in-mato-grosso-brazil/}{}$

dcxvii Biofuelwatch. Gary Graham Hughes. "Resist the Siren Call of Aviation Biofuels". May 21, 2021. https://www.biofuelwatch.org.uk/2021/resist-the-siren-call-of-aviation-biofuels/

dexuiii Biofuelwatch. "Aviation biofuels made from waste and residues cannot be scaled up, new report shows". February 11, 2019.

https://www.biofuelwatch.org.uk/2019/worldenergy-report-pr/

doxix Friends of the Earth -UK. "Four reasons biofuels aren't the answer to climate change". September 14, 2017.

https://friendsoftheearth.uk/sustainable-living/4-reasons-biofuels-arent-answer-climate-change

dexx Ximing Cai, Xiao Zhang and Dingbao Wang. "Land Availability for Biofuel Production". December 9, 2010

dxcv Biofilica. Clients. https://www.biofilica.com.br/en/biofilica/#clients



https://doi.org/10.1021/es103338e

https://pubs.acs.org/doi/10.1021/es103338e#

dexxi Ibid.

dexxii Interview with author. Spring 2022.

dexxiii The Guardian. Jean Zeigler. "Burning food crops to produce biofuels is a crime against humanity -

EU leaders must vote against a biofuels policy that is increasing world hunger and causing environmental devastation". November 26, 2013.

https://www.theguardian.com/global-development/poverty-matters/2013/nov/26/burning-food-crops-biofuels-crime-humanity

dexxiv The Guardian. Jean Zeigler. "Burning food crops to produce biofuels is a crime against humanity -

EU leaders must vote against a biofuels policy that is increasing world hunger and causing environmental devastation". November 26,

2013. https://www.theguardian.com/global-development/poverty-matters/2013/nov/26/burning-food-crops-biofuels-crime-humanity

dcxxv Community Energy reSource. Biofuels: Burning Food?. 2021. https://www.energy-re-

source.com/ files/ugd/bd8505 9cdf123d128a441685487e087d276343.pdf

dcxxvi Scientific American. David Biello. "Biofuels: Bad for People and Climate". February 7, 2008.

https://www.scientificamerican.com/article/biofuels-bad-for-people-and-climate/

dexxvii Proceedings of the National Academy of Sciences, Lark, Tyler J., et al. "Environmental Outcomes of the US Renewable Fuel Standard." vol. 119,

no. 9, 2022, p. e2101084119., https://www.pnas.org/doi/10.1073/pnas.2101084119

dexxviii ETC Group. Earth Grab: Geopiracy, the New Biomassters and Capturing Climate Genes. Pambazuka Press.

http://fahamubooks.org/book/?GCOI=90638100969040

dexxix UN. News. "Biodiversity Conference includes parts of the ocean". March 11, 2022.

 $\frac{\text{https://news.un.org/en/story/2022/03/III4I42\#:} \sim : \text{text=For\%20the\%20UN\%20Biodiversity\%20Conference,} includes\%20parts\%20of\%20the\%20uncean.}$

dcxxx Global Justice Ecology Project. Cassandra. Save the Whales... from the carbon market! 2021. https://globaljusticeecology.org/whale-offsets/dcxxxi lbid.

dexxxii The Whaling Museum. "When You Celebrate July 4, Thank a Whaler". June 29, 2018 https://www.cshwhalingmuseum.org/blog/celebrating-the-fourth-of-july-on-a-whaleship-or-not

"Dil even served as a currency; local schoolteachers were paid in whale oil."

dexxxiii Minority Rights Group International. World Directory of Minorities and Indigenous Peoples. https://minorityrights.org/minorities/ogiek/dexxxii International Database on REDD+ projects and programmes. Project: Restoration of Degraded Lands through Reforestation in MAU Forest Complex. https://www.reddprojectsdatabase.org/view/project.php?id=393 [Accessed April 19, 2022]

Project Description

The project activity involves commercial plantation in un-stocked compartment/ sub compartment and its restoration through continual effective forest management practices. The plantation activities will result in restoration of the backlog area and prevents its further degradation. The plantation of the commercial species will restore the timber stock of the gazetted forest and enhance the overall sustainability of the natural resource, community development and income generation activity. Plantation establishment and Livelihood Improvement (PELIS) scheme of land management will be followed up in the project activity to facilitate plantation in the identified backlog area.

dcxxxv Eric Dinerstein et al. Wildlife Premium Market + REDD: Creating a financial incentive for conservation and recovery of endangered species and habitats". https://www.yumpu.com/en/document/view/46824257/wildlife-premium-market-redd-hcv-resource-network

dcxxxvi Democracy Now!. Amy Goodman. "Commodifying Wildlife? World Bank Launches Market Scheme for Endangered Species". December 9, 2010. https://www.democracynow.org/2010/12/9/commodifying wildlife world bank launches market

dcxxxvii Eric Dinerstein et al. Wildlife Premium Market + REDD: Creating a financial incentive for conservation and recovery of endangered species and habitats". https://www.yumpu.com/en/document/view/46824257/wildlife-premium-market-redd-hcv-resource-network

dcxxxviii Indigenous Environmental Network. "Reaping profits, from Evictions, land grabs, Deforestation and Destruction of biodiversity". 2007. http://www.ienearth.org/REDD/

dexxxix Eni. Natural Capital: The Installation Theme. https://www.eni.com/naturalcapital/en-IT/theme-fuorisalone-2021.html

dox Indigenous Environmental Network. "Reaping profits, from Evictions, land grabs, Deforestation and Destruction of biodiversity". 2007. http://www.ienearth.org/REDD/

dexii IISD. "World Bank President Announces Wildlife Premium Market Initiative". December 10, 2010. http://sdq.iisd.org/news/world-bank-president-announces-wildlife-premium-market-initiative/

dexiii Democracy Now!. Amy Goodman. "Commodifying Wildlife? World Bank Launches Market Scheme for Endangered Species". December 9, 2010. https://www.democracynow.org/2010/12/9/commodifying wildlife world bank launches market

doxiiii Regeneration International. Pam Wright. "Bison: The Latest in Carbon Capture Tech". December 20, 2017.

https://regenerationinternational.org/2017/12/24/bison-latest-carbon-capture-tech/



```
dexiiv Defenders of Wildlife: "Wildlife: Crucial Piece of Puzzle in Fight against Climate Change". January 17, 2021.
https://defenders.org/blog/2021/01/wildlife-crucial-piece-of-puzzle-fight-against-climate-change
dexiv BCP- Higher Purpose, Video, https://www.lionlandscapes.org/lioncarbon
dexivi Lion Landscapes. Lion Carbon. https://www.lionlandscapes.org/lioncarbon
<sup>dcxlvii</sup> Ibid.
dexiviii BP. Our Carbon Project Portfolio. Forest management, Zambia. 2020. https://www.bp.com/en_gb/target-neutral/home/our-carbon-offset-
project-portfolio/previous-portfolios-projects/forest-management-zambia.html
"Supplier/Developer: BioCarbon"
dexlix Multinational Monitor. "BP: Legacy of Apartheid, Pollution and Exploitation". 1992.
https://www.multinationalmonitor.org/hyper/issues/1992/11/mm1192 11.html
del Eni. "EniandZambian REDD+ oroiect". March 3. 2020. https://www.eni.com/en-IT/media/news/2020/03/eni-zambian-redd.html
BioCarbon, Partners, https://biocarbonpartners.com/about/partners/
deli Al Monitor. Marc Espanol. "Italy's ENI to tap North African gas for Europe". April 27, 2022. https://www.al-
monitor.com/originals/2022/04/italvs-eni-tap-north-african-gas-europe
dclii Lion Landscapes. Lion Carbon. https://www.lionlandscapes.org/lioncarbon
deliii Equilibrium Research. S. Stolton and N. Dudley, N. 2019. "The New Lion Economy - Unlocking the value of lions and their landscapes". 2019. Page
84. https://assets.takeshape.io/eec0d9cd-dc81-4ba8-ac20-50da147f43d2/dev/f85e4e35-7c08-4346-b246-
4abcO4a14f23/THE NEW LION ECONOMY WEB.pdf
deliv Equilibrium Research. S. Stolton and N. Dudley, N. 2019. "The New Lion Economy - Unlocking the value of lions and their landscapes". 2019.
https://assets.takeshape.io/eec0d9cd-dc81-4ba8-ac20-50da147f43d2/dev/f85e4e35-7c08-4346-b246-
4abcO4a14f23/THE NEW LION ECONOMY WEB.odf
delv UK Research and Innovation. International day of forests. https://www.ukri.org/news-and-events/responding-to-climate-change/topical-
stories/international-day-of-forests/
delvi Equilibrium Research. S. Stolton and N. Dudley, N. 2019. "The New Lion Economy- Unlocking the value of lions and their landscapes". 2019.
https://assets.takeshape.jp/eec0d9cd-dc81-4ba8-ac20-50da147f43d2/dev/f85e4e35-7c08-4346-b246-
4abcO4a14f23/THE NEW LION ECONOMY WEB.pdf
delvii Lion Recovery Fund. "Unlocking carbon finance for protected area management". https://www.lionrecoveryfund.org/project/unlocking-carbon-
finance-for-protected-area-management/
dclviii Lion Landscapes. Lion Carbon. https://www.lionlandscapes.org/lioncarbon
"Lion Carbon Funding - Community and government agreements and the mechanisms to manage all REDD+ forest carbon operations have already
been developed by the BCP team through a US$14 million USAID Community Forests Program grant given in 2014. This includes the verification and
sale of REDD+ forest carbon offsets and mechanisms for the distribution of income from these sales to local communities."
dolix The Walt Disney 2019 Corporate Social Responsibility Update, Letter from our Executive Chairman.
https://impact.disney.com/app/uploads/2022/01/CSR2019Report.pdf
"For example, in 2019, in honor of Disney's The Lion King, we launched the "Protect the Pride" global conservation campaign, focused on protecting
and revitalizing the lion population across Africa by raising awareness and contributing $3 million to the Wildlife Conservation Network's Lion
Recovery Fund."
The Lion Recovery Fund funds the lion carbon work of BioCarbon Partners and Lion Landscapes
See Joint CITES/CMS/IUCN Lion Web Portal. Lion Projects. https://www.cms.int/lions/en/page/lion-projects
dclx Lion Landscapes. Lion Carbon. https://www.lionlandscapes.org/lioncarbon
dclxi BioCarbon. Partners. https://biocarbonpartners.com/about/partners/
dckii Lion Landscapes. Sponsors. https://www.lionlandscapes.org/sponsors
delxiii African Wildlife Foundation, Sylvia Wasioe, "Supporting wildlife species in the face of climate change", No date,
https://www.awf.org/blog/supporting-wildlife-species-face-climate-change
dckiv Lion Landscapes. Joni Overbosch. "Tracking a coalition of 5 male lions". Oct 18, 2021
https://www.lionlandscapes.org/post/tracking-a-coalition-of-5-male-lions
delay BioCarbon Partners. Luangwa Community Forest Project. https://biocarbonpartners.com/impacts/luangwa-community-forests-project/
delxvi Ihid.
delxviii Koobi Carbon. Eleohant Carbon. https://koobicarbon.com/project-portfolio/eleohant-carbon/
delxix BioCarbon Partners, Luangwa Community Forest Project, https://biocarbonpartners.com/impacts/luangwa-community-forests-project/
delax No REDD in Africa Network. "Stopping the Continent Grab and the REDD-ification of Africa." 2015. http://no-redd-
```

africa.org/index.php/publications/162-book-stopping-the-continent-grab-and-the-redd-ification-of-africa



dclxxi Lion Landscapes. Lion Carbon. https://www.lionlandscapes.org/lioncarbon

delxxii Equilibrium Research. S. Stolton and N. Dudley, N. 2019. "The New Lion Economy - Unlocking the value of lions and their landscapes". 2019. https://assets.takeshape.io/eec0d9cd-dc81-4ba8-ac20-50da147f43d2/dev/f85e4e35-7c08-4346-b246-

4abcO4a14f23/THE NEW LION ECONOMY WEB.pdf

delxxiii UK Research and Innovation. International day of forests. https://www.ukri.org/news-and-events/responding-to-climate-change/topical-stories/international-day-of-forests/

delxxiv Earth.org. Conservation Lower Zambezi. "Approved Mine in Lower Zambezi National Park Threatens Africa's Most Important River Basin". September 23, 2021.

 $\frac{\text{https://earth.org/approved-mine-in-lower-zambezi-national-park-threatens-africas-most-important-river-basin/delxav | Ihid}{\text{hid}}$

dckxxii Joint CITES/CMS/IUCN Lion Web Portal. Lion Projects. https://www.cms.int/lions/en/page/lion-projects

Unlocking carbon BioCarbon finance for Partners

 https://www.lionrecoveryfund.org/project/unlocking-carbon-finance-for-protectedarea-management/ Zambia Lion Recovery

Fund -\$120,000

protected area management in Zambia

https://www.lionlandscapes.org/lion-carbon

dckxvii Lion Recovery Fund. Threats to Lions. https://www.lionrecoveryfund.org/threats-to-lions/

"Other threats. A range of other threats affect lions and their prey in some places, including: mining in wildlife areas, illegal logging, poorly regulated trophy hunting, and disease". [Accessed May 20, 2022]

delxxviii | Ihid.

dclxxix WildCRU. "WildCRU goes climate positive". March 24, 2021

https://www.wildcru.org/news/wildcru-goes-climate-positive/

dclxxx WildCRU. "WildCRU goes climate positive". March 24, 2021

https://www.wildcru.org/news/wildcru-goes-climate-positive/

dclxxxi REDD Monitor. "Oil company Eni plans 8.1 million-hectare land grab in Africa for carbon offset plantations". March 17, 2019. https://redd-monitor.org/2019/03/17/oil-company-eni-plans-8-1-million-hectare-land-grab-in-africa-for-carbon-offset-plantations/

delooxii World Oil. Paul Burkhardt and Chiara Albanese. "Eni to offset CO2 emissions by saving African forests". May 3, 2019.

https://www.worldoil.com/news/2019/5/3/eni-to-offset-co2-emissions-by-saving-african-forests

dekoxiii Eni. "Eni and Zambian REDD". 2020. https://www.eni.com/en-IT/media/news/2020/03/eni-zambian-redd.html

debxxxiv BioCarbon Partners. Luangwa Community Forest Project. https://biocarbonpartners.com/impacts/luangwa-community-forests-project/debxxvv JA/Friends of the Earth -Mozambique. Intervention at Eni Annual General Meeting. June 14, 2019. https://ja4change.org/2019/07/11/justica-ambientals-intervention-at-eni-annual-general-meeting/

Eni. Our work in Mozambique. https://www.eni.com/en-IT/eni-worldwide/africa/mozambique.html

delxxxvi JA! Friends of the Earth -Mozambique. Intervention at Eni Annual General Meeting. June 14, 2019. https://ja4change.org/2019/07/11/justica-ambientals-intervention-at-eni-annual-general-meeting/

"Although the extraction in Mozambique has not yet begun, already the project has taken land from thousands of local communities and forcefully removed them from their homes."

^{dclxxxvii} lbid.

dekooxviii Al Monitor. Marc Espanol. "Italy's ENI to tap North African gas for Europe". April 27, 2022. https://www.al-

monitor.com/originals/2022/04/italys-eni-tap-north-african-gas-europe

delxxxix UNFCCC. Sharm-el Sheikh Climate Change Conference - November 2022. https://unfccc.int/process-and-meetings/conferences/sharm-el-sheikh-climate-change-conference-november-2022

dexc Climate Links. Egypt. https://www.climatelinks.org/countries/egypt "Through its long-recorded history, Egypt's vulnerability to climatic changes has resulted in famine and political unrest during periods of drought."

dexci Eni. Africa. https://www.eni.com/en-IT/eni-worldwide/africa.html

dexcii Interview with author. December 2013.

dexciii US United Nations Archives http://www.unusa.org

dexciv Bloomberg. "Top Dil Traders Say Emissions Market Could Challenge Crude". June 16, 2021. https://www.bloomberg.com/news/articles/2021-

06-16/traders-see-carbon-becoming-bigger-market-than-crude-oil

dexev Ihid.

decolonize the Earth and Sky. https://redd-monitor.org/2012/06/19/no-redd-in-rio-20-a-declaration-to-decolonize-the-earth-and-the-sky/

101



dexevii No REDD in Africa Network. Stopping the Continent Grab and the REDD-ification of Africa. 2015. https://no-redd.africa/wp-content/uploads/2021/11/REDDinAfricaNetwork.pdf [Accessed January 17, 2022]

deceviii Fern. "COP 19: a leap towards a global carbon market?". June 9. 2013.

"A new report (see attachment) published by the Rainforest Foundation Norway explains the stakes for forests and carbon markets at COPI9 in Warsaw. There is so much jargon - 'Framework for Various Approaches' (FVA) and 'New Market Mechanisms' (NMM) - that the issues can quickly seem complex. But the intentions are clear: to get agreement to approve existing national/regional/local Emissions Trading Systems for compliance with the Convention, taking a giant leap towards a global carbon market."

http://www.fern.org/book/trading-carbon/global-carbon-markets

descrix Sanford Gaines. "The WTO's Reading of the GATT Article XX Chapeau: A Disguised Restriction On Environmental Measures". https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=1307&context=jil

deci Dylan Thomas. Do not go gentle into that good night. https://poets.org/poem/do-not-go-gentle-good-night decii Led Zeppelin. Stairway to Heaven. 1971.