

Transcript

Upstream Podcast

Ep 14: The Green Transition Pt. 1: The Problem with Green Capitalism

Featured Guests:

Max Aji: Associated researcher with the Tunisian Observatory for Food Sovereignty and the Environment, postdoctoral fellow with the Rural Sociology Group at Wageningen University, author of *A People's Green New Deal*.

Ana Julia Aneise: Youth climate activist with Youth for Climate

Sergio Chaparro: Colombian human rights activist and researcher.

Jason Hickel: Economic anthropologist and author of *Less is More: How Degrowth Will Save the World*

Beaska Niillas: Northern Sámi traditional handicrafter, hunter and gatherer, activist, Sámi school kindergarten teacher, politician, and the host of the SuperSápmi Podcast

Thea Riofrancos: Associate professor of political science at Providence College and co-author of *A Planet To Win: Why We Need a Green New Deal*

Matthias Schmelzer: Economic historian at the University of Vienna and co-author of *The Future is Degrowth: A Guide to a World beyond Capitalism*

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Also, before we get started please take a few seconds to Apple Podcasts and Spotify to rate, subscribe, and leave us a review. It really helps get Upstream in front of more eyes and into more ears. Thank you. And now on with the show.

[Music: Lanterns – Hearth & Harvest]

[River sounds]

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Della Duncan: A podcast of documentaries and conversations that invites you to unlearn everything you thought you knew about economics. I'm Della Duncan.

Robert Raymond: And I'm Robert Raymond.

Della Duncan: Join us, as we journey upstream.

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[Music: Chris Zabriskie — Take Off and Shoot a Zero]

[Sounds of mine collapse]

Della Duncan: It's August 5th, 2010. A gold and copper mine deep in the Atacama desert of northern Chile has just caved in. Thirty-three men are inside — no one knows where they are, or if they're even alive.

[Early news reports?]

News Anchor: I was told there had been an accident where thirty-three miners were trapped, we didn't have more information...

News Anchor: The company estimates that 30 men were working below...

News Anchor: The miners could be anywhere, if they're still alive...

News Anchor: The Copiapó mine has collapsed....

News Anchor: A disaster at the San José mine in Chile...

Della Duncan: As search parties descend down into the creaky, crumbling mine shaft, they're confronted with a scene that you might expect from a movie — there's a building-sized boulder blocking the tunnel. They're trying to find another way in when...

[More crumbling sounds, sounds of rescuers]

Della Duncan: ...there's another collapse. They can't go any farther. It's slowly dawning on the search party that they're going to have to find another way down.

[Drilling sounds]

Della Duncan: Drilling rigs are brought onto the site above the mine to drill a series of exploratory holes to check for survivors. They're racing against time — they know that food and oxygen will soon run out for those trapped deep below.

Engineers are drilling 6 inch wide holes half a mile down into the mountain, hoping by chance that they'll discover the entombed miners. It's an incredible feat of engineering — it's also quite literally a shot in the dark.

Blindly, engineers are trying to reach a small room deep in the mine, a refuge with just a few days of food stored in it. Some believe that the miners might have found their way there. Community members and families have begun gathering around the entrance to the mine, watching helplessly. Hours go by. Then days. Then weeks.

[News clips]

News Anchor: It's been two weeks since the Copiapó mine collapse, and still no sign of the trapped miners...

News Anchor: Engineers have been searching for weeks now, with no luck...

News Anchor: Are the miners still alive? No one knows, but the search continues...

Della Duncan: And then suddenly, early in the morning of August 22nd, 17 days after the mine first collapsed, one of the drills breaks through near the refuge. Everyone goes quiet above, as engineers listen with a stethoscope. They can hear a faint tapping sound coming from deep below. They race to pull up the drill, and when it emerges out of the hole, they see something incredible attached. It's a note.

[End music]

Della Duncan: "All 33 of us are fine in the shelter."

[Sounds of cheering]

[Pele – Monkey Monkey Las Vegas]

Della Duncan: For days the miners had heard drills approaching and had prepared notes, which they attached to the tip of the drill with insulation tape when one finally broke through. They also clanged on the drill with anything they could before it was withdrawn, these were the tapping sounds that engineers heard from the surface.

The miners had been in the refuge until ventilation issues forced them out into a tunnel, which is where they were found. Food had been rationed — a three day supply lasted them two weeks. They ate two spoons of tuna and a half-glass of milk every 48 hours for 17 days, all while living in the humid darkness in temperatures of up to 95 degrees.

It took another *two months* for the miners to be rescued to the surface — they were entombed alive for 69 days in total.

News Anchor: But I have to say, you know, as much of a Hollywood ending as this story was, and still is, it's important to point out though that these thirty-three miners, they are still suffering today, many of them feel like have been forgotten, they have been — although they became instant celebrities, many of them are broke, the government never paid them restitution for the accident so...

[Fade music out]

[Music: Chris Zabriskie — Is That You or Are You You]

Della Duncan: The San Esteban Mining Company, which owns and operates the San José mine has a long history of safety violations. The mine was actually built in 1889 and still had much of the same infrastructure in place at the time of the disaster. The San Esteban Mining Company had been fined 42 times in previous years for violations, and two miners lost their lives in previous cave-ins. A geologist also died in an explosion at the mine in 2007. The mine was known to be an extremely dangerous place, but impoverished workers often had no other choice.

Copper mining is a huge industry in Chile — the country exported \$14.5 billion worth of copper in 2020, making it the largest exporter of refined copper in the world.

Copper has a lot of uses, of course, but one of the primary ones is in electrical equipment like wiring and motors. Copper also plays a huge role in the growing renewable energy sectors of solar and wind energy.

Chile also just happens to be one of the largest exporters of another essential metal for renewable technologies: lithium, which is necessary for the lithium-ion batteries in electric vehicles.

In 2020, Chile exported \$676 million dollars of Lithium carbonates, making it the largest exporter in the world. The majority of Chile's lithium extraction takes place in the Atacama desert — yep, that would be the very same desert surrounding Copiapó, where the 2010 mining disaster took place.

What happened at the copper mine in Chile isn't just a story about corporate negligence — it's a story connected to a global system, which the Copiapó mine is a small but significant part of. It's a story about green capitalism, about global supply chains, about extractivism, and colonialism.

In part one of this two part series on the green transition, we're going to explore what happens when we paint capitalism *green* without addressing its fundamental global operating principles and processes. What is the dark side of the energy transition — particularly for the Global South and Indigenous communities? And what would a globally just and redistributive climate policy look like?

In part two, we'll dive deeper into some solutions, but for now, we're starting our journey in the Atacama desert of Chile, and ending all the way in the Arctic Circle, exploring the global extractive machine and the communities that exist on its frontiers.

[Fade out music]

Thea Riofrancos: Lithium is a key example that really exemplifies this tension between needing to address the climate crisis rapidly, but also not wanting to do so in a way that exacerbates harm in what we might call the extractive frontiers of the energy transition.

Della Duncan: Thea Riofrancos is an associate professor of political science at Providence College and co-author of *A Planet To Win: Why We Need a Green New Deal*.

Thea Riofrancos: Addressing the climate crisis — and climate action, climate policy, the energy transition — means leaving a big form of extraction behind in the historical — the dustbin of history to say like, we're not going to extract fossil fuels anymore.

So let's say in an ideal world, we leave it all in the ground. We don't extract fossil fuels anymore. That, unfortunately, does not mean the end to all forms of extraction, because in order to create those solar panels, lithium batteries and wind turbines — these green technologies, other forms of mining are needed. And for me, this began as an academic study, and then it became an area of activism and advocacy as well — a way to kind of study and understand this trade off potentially, or tension or dilemma, whichever word we prefer, where on the one hand we need to rapidly build, build out green technologies. We need to deploy them. We need to be able to harness the sun and the wind and distribute that renewable zero emission power and use it in all sorts of applications. But on the other hand, to create the physical build-out — the physical kind of footprint of a renewable energy system, other forms of extraction that have their own environmental and social impacts that might be contentious at the point of extraction are involved.

Is this an immutable tension? Is it necessary that certain people, places and ecosystems and landscapes are just simply sacrificed in the name of fighting climate change? How do we think about that on the left as environmentalists, as climate activists, as socialists? Like, how do we grapple with that? The question is, how can we not just be aware that this tension exists, but actually proactively aim to reduce the tension between necessary rapid climate action on the one hand and on the other hand, the protection of ecosystems, communities, Indigenous rights that are potentially threatened by a new wave of mining associated with the energy transition?

And just to kind of put it out there, I mentioned lithium, but we're also talking about cobalt, nickel, graphite — we're talking about a lot of new steel, very energy intensive to produce and very carbon intensive currently. We're talking about lots of copper — already one of the largest kind of mining sectors. So there's a whole panoply of minerals and metals that are needed for these different green technologies. And the question is, how can we make this whole situation more just?

Jason Hickel: So, look, I mean, of course, we have to accept that there's going to be some increase in extraction for renewable technology. The crucial thing is that has to happen under conditions of global justice, right? With just supply chains that are ecologically and socially safe, that pay living wages, etc., etc. — that's not in place right now.

Della Duncan: Jason Hickel is an economic anthropologist and author of *Less is More: How Degrowth Will Save the World*.

Jason Hickel: People have this assumption that clean energy is sort of weightless, right? Like it comes — just comes out of thin air. Of course, some wind, of course, do come out of thin air effectively. But the infrastructure that we need to capture — solar and wind power — is very materially intensive. It requires an extraordinary amounts of mining for batteries and solar panels, wind turbines, etc., etc.

And crucially, the majority of the rare earth minerals that are necessary to run that infrastructure for those batteries, those solar panels, those turbines, etc., that comes from the Global South.

And we already know that right now it is being extracted on extremely destructive terms — both ecologically destructive as well as socially destructive.

[Sounds from the Atacama Desert]

Thea Riofrancos: In northern Chile, in the Atacama Desert, which is the world's driest desert and also oldest desert — an amazing desert ecosystem with all sorts of biodiversity within it, there are endemic flamingos, there are fascinating water systems within the desert, despite it being water scarce. There are Indigenous communities that have lived there for thousands of years, right? This is this desert that is being afflicted with the dual forms of extraction of lithium and copper. And so lithium, copper both relevant to the energy transition. Chile's the number one copper producer. It's the number two lithium producer in the world.

And what these — both of these extractive sectors have done in the desert, which is, as I said, it's a desert — it's already a negative water balance, just naturally. But that's held in some kind of equilibrium. But when you add these and water intensive extractive sectors, it sort of throws the whole thing out of whack.

Della Duncan: One of the primary sources of lithium are salt deserts known as salars. The soft, silvery-white alkali metal exists beneath the surface of underground lakes known as lithium brines. In order to extract it, the saltwater these from underground lakes containing lithium is pumped up to the surface where it evaporates over several months in large basins or evaporation ponds. The remaining saline solution is further processed in several stages until the lithium is suitable for use in batteries.

Thea Riofrancos: So we have lithium, which is suspended in these brine pools right below the surface of the salt flats that's extracted at these very rapid rates, thousands of liters a second. And that brine is — that salt water underneath the ground — is connected to the freshwater. So you're pulling down the freshwater table, making that less accessible to non-human nature and to human the Indigenous communities that live around the salt flat.

Copper, meanwhile, is extremely water hungry, so much so that some of the largest desalination plants to remove the salt from seawater have been built in Chile to serve the copper mines because the copper mines need more water than the desert can provide. So they take all this water out of the ocean, take out the salt, ship it from the coast to the desert. And that's how the copper machine keeps going. And so that just gives you a sense of like the stresses on these environments and people and animals and plants in these landscapes.

Della Duncan: And it's not just about the water.

Thea Riofrancos: In any given deposit, the valuable mineral in question, the copper, the cobalt, the nickel, the lithium is a small percentage of the surrounding rock or clay or brine or whatever type of deposit it is. That means everything else is considered waste. That waste piles up at the sites of extraction. That waste can have contamination, whether due to oxidation and what materials are being exposed to the air that aren't normally exposed to the air, or because of the chemicals and reagents being used in the extractive process. So you have toxic heaps of waste. And then containing that waste becomes an issue. Often that waste can flood out into surrounding communities. So there's that, there's those environmental harms. There are emissions associated with mining. Usually carbon intensive energy is being used in the mining process as well.

And then there's human rights and Indigenous rights violations, right? So we can see violence perpetrated against communities, against workers, forms of repression of workers at those mine sites. We can see the violation of international Indigenous rights to prior consent before the mine is even built. So there's a whole host of social and environmental harms.

And then on top of that, when protest occurs, that may be repressed, right? So that's a kind of double harm of the original grievance. And then getting violently repressed when you engage in protest. And there's many examples of that.

News Anchor: Despite COVID-19 restrictions, last year was the deadliest on record for environmental activists, a trail blood that campaign group Global Witness says killed 227 people around the world...

News Anchor: Colombia is the most dangerous country to be an environmental defender in the whole world, and no one cares...

News Anchor: ...were murdered, over a thousand land defenders, water protectors, environmentalists since the Climate Accord was signed in Paris in 2015

News Anchor: ...against defenders, Latin American remains the deadliest place for them....

News Anchor: Latin American, obviously, is very rich in natural resources and also, sadly, very rich in...

Sergio Chaparro: The end of the world is already here, but it is unevenly distributed because the climate catastrophe already means that many people in the world are losing everything. And this is the case for entire communities displaced by the effects of climate change, or those that bravely resist the consequences of the expansion of extractivism in the name of the energy transition or other forms of greenwashing.

Della Duncan: Sergio Chaparro is a Colombian human rights activist and researcher.

Sergio Chaparro: I come from a country where the risk for environmental defenders is probably the highest in the world. Colombia is the country where more environmental defenders are killed, and we can say that is the most risky country for environmental defenders to carry out their struggles. So I have seen how many people that were conducting very important work and were carrying out struggles in the ground for trying to defend their lands, defend their livelihoods, they build for so many decades is being threatened by, for example, land grabbing or by a projects at large scale, including projects that are about renewables. And some of them basically were killed for doing this work.

Della Duncan: Mining in Colombia has historically been focused on large coal mines along its northern coast and relatively small-scale gold and emerald operations in the Andes. But following a 2016 peace deal between the government and the Marxist–Leninist guerrilla group FARC, along with growing pressure from international mining companies, Colombia is now looking for new minerals in previously inaccessible areas. And this includes copper. In fact, the head of the Colombian national mining agency has stated outright that they're looking to become one of the top ranking copper-producing countries in the world.

Sergio Chaparro: Land grabbing in Colombia, as well as in many other Global South countries, is a drive by a different kind of projects. First of all, of course, there are local actors that have been expanding cattle raising activities and that they are accumulating lands that previously were owned by peasants, whether by market forces or through the use of violence. But also, there are projects for trying to secure control over the resources that are underground. And this phenomenon has also triggered land grabbing in countries like Colombia and other Global South countries.

So, yeah, the land grabbing and this phenomenon of risks for environmental defenders has been triggered by different kinds of projects, including agribusiness, resource extraction, or renewables.

Ana Julia Aneise: My name is Ana and I'm a youth climate activist. I participate in Youth for Climate since 2019. Youth for Climate is an organization that was born in 2019 as a response to the European movement that Greta Thunberg was leading, but with the certainty that we had to make, like, our own contribution from Argentina. And that thinking about climate crisis from Europe was very different than thinking about it from Argentina. And that, I mean, we were really inspired by her, but that we had to invent at some point our own narrative and our own way of fighting against climate change from here.

Della Duncan: Argentina happens to be the world's fourth largest exporter of lithium and it's part of a region called the "Lithium Triangle," which includes Chile, where we began in the Atacama desert, and also Bolivia. In total, these three countries hold more than 75 percent of the world's lithium supply beneath their salt deserts. Argentina's massive reserve of this metal presents a significant development opportunity for the country — but this opportunity comes with many contradictions.

Ana Julia Aneise: Lithium is an element that is key to transition into electromobility — like electric cars. It's a key part of the battery that makes these cars function. There is a huge geopolitical pressure into exploiting as much as they can in a very short amount of time. And that makes it difficult to reassure that the resource is not going to, like, ruin people's lives, that people — particularly the people that live in the 'salars' where lithium is extracted. It's very difficult because there are lots of Indigenous people that live in the 'salars' where lithium is extracted and they have their own ways of living and they don't want to change the way in which they live. And it's like, yeah, huge contradiction. So it doesn't make sense for us to extract all of the lithium so that people can have three cars and that everything stays the same.

Well after that, we will have like nothing else than a lot of ecosystems that have been destroyed and that won't be producing a better quality of life for people that live there or even the rest of the country.

Della Duncan: While many countries in the Global South are experiencing what's often referred to as 'The Double Burden' of being the ones most impacted by climate change *and* the ones the most harmed by green extractivism, the story of Argentina reveals a common third threat: debt.

Ana Julia Aneise: It's really difficult to introduce the climate change discussion because it's like we cannot pay what we already have to pay to the IMF. And we cannot even speak about quitting all of this economic activities that allow us to pay.

Della Duncan: Argentina's foreign debt currently stands at 70% of its Gross Domestic Product and continues to have major impacts on the economy and the lives of Argentinians. Military dictatorships, decades of neoliberal hegemony imposed by the IMF and World Bank, the flight of foreign investment, skyrocketing inflation, and previous defaults on its debt have left the country in a very precarious economic condition without much opportunity for flexibility. Because of this, paying off its foreign debt is policymakers' number one priority.

Ana Julia Aneise: So we are in a situation where we cannot choose what to export or what not to export. We know that we have to exploit more our lands, more our minerals. And there's like — in the public discourse, there's no debate about that. It's like something that we have to do because we have to pay the debt and we have to also grow and develop and everything.

So fighting those contradictions and those inequalities is part of our narrative because we act locally, but we think globally. And in that context, we think that the solidarity that the whole economic system has to have with Global South countries is enormous. And we're not having that conversation, I think, globally. So also, as we're part of Fridays for Future, we try to speak about that kind of thing, about external debt and how it is really difficult for us to pay that debt and at the same time make the transition that we have to make.

Jason Hickel: When a Global South country is under foreign debt — external debt — this is debt owed in a currency that it does not control.

Della Duncan: Here's Jason Hickel again.

Jason Hickel: In order to pay that debt, and furthermore, to pay interest on that debt, which is an exponential function, it has to export more of its resources, more of its embodied labor and energy, etc., etc., In order to get the foreign currency required to do that, right? So debt is basically a claim on Global South resources and labor. And not just a static claim, a growing claim. And this is wild for anyone in the Global South to have to deal with if they're at the same time trying to mobilize resources and labor around meeting local human needs or achieving an energy transition, etc. They're basically under pressure to mobilize resources and labor instead around servicing northern corporations. So this is a real problem.

[Music: Chris Zabriskie – John Stockton Slow Drag]

Della Duncan: As Thomas Sankara, the Marxist revolutionary from Burkina Faso, said in the 1980s, “debt is a form of neocolonial control over the Global South.” It's a tool created to maintain the Global North's hegemony and to ensure a steady flow of resources from the South. It's a necessary component in keeping the global capitalist imperial machine intact.

[Fade out music]

Max Aji: In spite of the fact that people are extremely exploited, extremely oppressed, extremely alienated, having fundamental human rights violated, being gunned down in the streets by police in the United States, dying of cancer plagues, suffering under colossal public health mismanagement, right? There's still a structural flow from the south to the north.

Della Duncan: Max Ajl is an associated researcher with the Tunisian Observatory for Food Sovereignty and the Environment and a postdoctoral fellow with the Rural Sociology Group at Wageningen University. He's also the author of *A People's Green New Deal*.

Max Ajl: Especially if you need to change to a different socio-ecological system, the ruling class wants to secure access to things it wants and needs for luxury consumption and overall systemic control. And it has to get them from somewhere. I mean, if you try to exploit further people in the north, you're going to be up, as it were, shits creek, right, because the people are very close and can cause disruption very quickly. If you try to do it in the South, well, there I mean, you have neo-fascist governments, for example, in India, in the Philippines, Brazil. Okay, well, they'll carry out labor repression for you. Right? And if a government really gets obstetrics and really tries to do something for its people, you can overthrow them.

So maintaining the flows from south to north and ensuring that you can maintain hierarchy and accumulation south and north while giving something to the northern, middle or lower classes in order to keep convince people that they have a stake in the system as it is — it is logical that one would take those resources and those labor hours from the South rather than from the north. It makes sense from the perspective of a ruling class, which is why we live in an imperialist world.

Della Duncan: Of course, the Global North exploits and extracts resources domestically all the time — most notably from Indigenous communities. We explored this in the context of settler-colonialism in our documentary episode last spring titled, [*Our Struggles are Your Struggles: Stories of Indigenous Resistance and Regeneration*](#).

But in this context, we're talking about extraction from the peripheries to the imperial core — we're talking about capitalist imperialism. And in doing so, it's helpful to begin with a historical materialist analysis on the dynamics of exploitation, oppression, accumulation, and appropriation when it comes to north-south relations in the world system.

Max Ajl: The world system is a world system, right? It is not a system — capitalism is not a system, whether you consider it a system of plenty or plenary or a dreamland or a realm of destruction. It's not something that just popped out of the British soil, along with King Arthur and the monarchy and whatever, right? It's something that emerged as part of a global transformation in the world system. I mean, the cotton came from somewhere. The slaves that grew the cotton came from Africa. This is why you had a settler genocide in the United States.

I mean, capitalism was born as a global system, right? The process of labor exploitation in a British factory was never separable from the process of the eradication of the Indigenous population, the eradication of the Indigenous population of the Americas, the slave trade, the sugar trade, the looting of the wealth of Indonesia and India through massive processes of colonial primitive accumulation. The great famines that ripped across India, the World War Two famine engineered by Lord Keynes in order to secure foodstuffs from Bengal and so forth, right?

These were actually not — these aren't kind of supplements. These aren't like the historical decoration that occurred as kind of an adjunct or an optional extra to an actual theoretical historical process of like true history capital letters that occurred in Britain. These were actually

fundamental, foundational and constitutive rather than incidental or appurtenances to the actual history, right? So this tells us that we need to always be looking globally.

Della Duncan: Exploitation and extraction are baked into the global capitalist system — whether through settler-colonialism or imperialism. But capitalism, of course, doesn't exist on its own, in some kind of vacuum. It's not just a bunch of transnational corporations running around exploiting and extracting. The entire system is only made possible through *state* coercion, coordination, and violence.

Max Aji: The last point that is critical for people to keep in mind when it comes to imperialism and internationalism is that this reminds us that we can't just rest on these ideas, that there's extractive supply chains, that there are patterns of uneven transfers of global wealth, right? These are descriptions right? They're accurate descriptions. They tell us that something very bad is going on. They tell us, economically speaking, the trading systems and so forth that are kind of the gears and levers. But they don't tell us who are the machine toolmakers who are designing these trading systems and not only that, are making sure that they remain well oiled politically and remain in place, right? And that is where the national question comes into play. It tells us that these are not only economically engineered, but they are politically engineered. And of course the tabulations for this are very well established and the mechanisms of it are of course the wars, coup d'état, sanctions, regimes, military interventions and so forth.

[Music: Chris Zabriskie – John Stockton Slow Drag]

Della Duncan: People in the Global South know all too well how the fight for control over minerals by the Global North has devastated their countries and destroyed their democracies. For example, U.S. copper companies Anaconda and Kenne-cott were instrumental in the 1973 U.S.-backed military coup of Chile which violently overthrew the democratically elected socialist President Salvador Allende after he put forth a plan to nationalize Chilean copper mines.

Thirty years later, in September, 2022, citizens of Chile were asked to vote on a new constitution put forth by recently elected left-wing president Gabriel Boric which would enshrine a wide variety of progressive laws — including putting the country's minerals under the peoples' control. The constitution was overwhelmingly rejected by voters after right-wing opponents outspent approval forces four to one and launched a massive misinformation campaign.

Just before the vote, op-eds were published in many major U.S. papers like the [Financial Times](#) with headlines like “Chile's draft constitution is seriously flawed,” going on to state that:

“Worryingly for business, the document erodes property rights. Chile is the world's biggest copper producer and its second-biggest exporter of lithium. But the draft charter creates so much legal uncertainty that it risks deterring the big investments needed for new mines.”

And an op-ed in the [The Washington Post](#) read:

“Lithium is a key input in batteries that run millions of laptops and upon which the United States is basing its electrified automotive future. Chile sits atop the world's largest lithium reserves; it produced about 25 percent of the world's commercial supply in 2020. That's reason enough to pay attention to Chile's impending Sept. 4 referendum on a proposed new constitution: It would

recast the legal framework for mining in the South American nation, which has an 18-year-old free trade agreement with the United States.”

The Washington Post, of course, is owned by Jeff Bezos, who is a major investor in companies like KoBold Metals, which specializes in searching for new reserves of metals like cobalt, lithium, nickel, and copper.

The United States — along with the imperial bloc which it leads — is not only exploiting the Global South for minerals to fuel the green capitalist transition — it also wants to ensure that the U.S. remains the prevailing world hegemon as the 21st century continues to unfold. This is particularly relevant in terms of the United States’ relationship with countries like China, which is racing to secure its own mineral supplies in countries like Zimbabwe — the world’s fifth largest exporter of lithium, and the DRC, the world’s first largest exporter of cobalt — another metal essential in the production of electric vehicles. Competition between countries like the U.S., China, and Russia for the minerals that will fuel the green transition will likely only get more fierce and fast-paced as we continue to phase out fossil fuel extraction.

Max Aji: If you want to rebuild the entire basis towards a kind of green imperium, you are definitely going to want to be investing heavily in green renewable energy, and you’re going to want to make the US the leader in technology export in that sector, right? So but then the technology export itself can be a mechanism for re subjugation of the South because you maintain monopoly control over the most advanced means of renewable energy, while in fact probably putting in place tariffs, for example, on — based on the carbon intensity of imports. So this is a way of actually leveraging that structural position into a way to kind of leverage the world system into a non-carbon based world system that’s still a capitalist world system.

[Music: Chris Zabriskie – Thanks for Trying to Rescue Me but You’ve made Things Worse]

Matthias Schmelzer: My name is Matthias Schmelzer. I’m based in Berlin. I work as an economic historian at the University of Vienna and a postdoc position doing research on the political economy of growth and alternatives in the context of degrowth and global ecological justice.

Della Duncan: Matthias is also a co-author of *The Future is Degrowth: A Guide to a World beyond Capitalism*.

Matthias Schmelzer: The capitalist system needs growth and only functions stably through growth. So there is a key problem built into the capitalist mode of accumulation, which relies on the externalization of costs and the appropriation of cheap resources, labor and nature. And this is not sustainable. It cannot be made sustainable.

Della Duncan: In light of this fundamental contradiction of capitalism — the need for infinite growth on what is very much a finite planet — it’s becoming more and more obvious that any discussion about climate change needs to also be a discussion about addressing the growth imperative.

Matthias Schmelzer: Degrowth is a term that is become increasingly mobilized by scholars and activists to do two things: to firstly criticize the hegemony of growth in our societies and

everything that's connected to this. And secondly, it's a proposal for a radical reorganization of society that leads to a drastic reduction in basically the use of energy and resources while maintaining a higher standard of living.

Della Duncan: The thing about degrowth is, it's not some kind of anarcho-primitivist vision of complete deindustrialization or the abolition of technology. Degrowth advocates are actually arguing for smarter, more efficient, more rational forms of industry and technology — things that will actually increase our standards of living. This includes proposals like ending planned obsolescence, instituting mandatory extended warranties, creating “right to repair” laws making it illegal for companies to produce things that can't be repaired by ordinary people, shifting from ownership to usership models — so creating things that are rented or shared like in tool libraries and share shops — and also offering larger, systemic transition initiatives like the expansion of public transportation, the implementation of a shorter workweek, the decommodification of public goods and expansion of the commons, permanent rent controls, negative interest rates — and all sorts of other policies that slow things down a bit, improve the quality of our lives, and make it so that we don't need to be constantly extracting so much from the world around us to fuel this ceaseless drive for more, more, more.

Matthias Schmelzer: So, in the book, we highlight a couple of key perspectives that we think should inform not only degrowth, but also the larger debates about ecological transition and transformation, which we put together under the label of South-North critiques, which are a certain type of critique of economic growth that basically argue that economic growth — even in the form of green growth or green capitalism — necessarily relies on the appropriation of resources from the global periphery to the centers and the externalization of the costs from the center to the peripheries.

And the core structures that are shaping our societies and have produced this very unequal world, they are just transferred on the basis of different forms of energy and resources. And this is not only not sustainable, but highly unjust.

Jason Hickel: If we're going to assume that rich nations get to continue to increase growth and therefore continue to increase energy use indefinitely, what we're talking about is an indefinitely increasing extraction from the Global South to fuel that vision, right? This is not a tenable proposition. It will cause extraordinary amounts of destruction and exploitation that really boggles the mind to think about the implications of this. So, yes, we need renewable energy, but the idea that we can have perpetually increasing renewable energy is a very dangerous one and we must reject it.

Della Duncan: The ceaseless expansionary imperative of capitalism — whether green or not — fundamentally relies on the destruction and exploitation of the Global South. But, of course, the problems inherent within green capitalism don't only exist in the sphere of human exploitation. This is also a question about planetary habitability in the most fundamental sense.

Jason Hickel: Trying to decarbonize a growing economy is more difficult than trying to decarbonize the steady state economy. Similarly, it's like trying to fill a bathtub that keeps getting bigger or trying to shovel sand into a hole that keeps expanding or trying to run down an escalator that is accelerating upwards against you, right? That's effectively what we're running up against when we're trying to grow the economy at the same time as decarbonizing. And so the very simple proposition that comes from post-growth and degrowth research is simply that if

you abandon growth as an objective and additionally scale down less necessary forms of production to reduce energy use then you can decarbonize more quickly.

And what's exciting is that we have very clear empirical evidence of this in modeling studies. People will often say that 1.5 degrees is dead. It's impossible to decarbonize that fast. But that is only true if we assume that high income nations should keep growing their economies. If we take that assumption off the table, and indeed if we have a degrowth approach in high income countries, then 1.5 degrees is absolutely possible to achieve because — and this is the crucial, the most important principle of climate economics — the less energy you use, the more quickly you can decarbonize. We should tattoo that on our minds. The less energy we use, the more quickly we can decarbonize. So, yes, we need efficiency improvements. Yes, we need renewable energy deployments. But that alone is not enough if we're going to pursue growth at the same time. So, if we scale down energy use, then we can decarbonize more quickly. And that's the key objective here.

[*Music: Sofia Jannok – Yoik of the Wind*]

Beaska Niillas: What breaks my heart right now? It's to see how people with power, nations with power, they literally walk on dead bodies to get what they want. This greed that destroys the land, it destroys nations, it destroys cultures, it destroys values. It's very sad to see what the world has become. I'm not saying that the world has always been a peaceful Eden's garden or something, but I'm saying that people have understood before that you can't burn down the house you are sitting in. And that's what's happening now, but on a global scale.

Della Duncan: Beaska Niillas is a traditional Sámi handicrafter, hunter and gatherer, activist, Sámi school kindergarten teacher, and politician. We featured Beaska in our documentary episode [Our Struggles are Your Struggles](#), which in part explored the impacts of climate change on the Sámi people — as well as how they're fighting back against the erasure of their culture and lifeways.

The Sámi are an Indigenous people who've inhabited Sápmi, which today encompasses large parts of northern Norway, Sweden, Finland, and Russia, for thousands of years.

Beaska Niillas: So, the root problem isn't that we need more energy, we just need to use less energy. And if we can change this green transition into something like that, then we would have taken a huge, huge step, that, uh, you can't just fix fix problems with with some Band-Aid, it has to be very deep and very, very thought through when we are to change this world.

Della Duncan: There are a number of extractive operations taking place in northern Sweden which are affecting the Sámi, such as the installation of wind turbines which threaten the reindeer that the Sámi are heavily reliant on, an open-pit copper mine known as the Aitik mine, and also an open pit iron-ore mine known as the Gállok mine, which actually received quite a bit of media attention after Swedish environmental activist Greta Thunberg joined the Sámi activists at a demonstration against the mine in Sápmi this past February.

Greta Thunberg: We are here because we want to protest against the mine that is being proposed, and now it's time for the Swedish government to say no because the world's eyes are right now here on Gállok and on Sweden. The Swedish government needs to stop the

colonization of Sápmi. We believe that the climate, the environment, clean air, water, reindeer herding, Indigenous rights, and the future of humanity should be prioritized before and above the short term profits of a company — a British mining company.

[Music: Do Make Say Think – The Landlord is Dead]

Della Duncan: The Gállok mine is located 30 miles from the town of Jokkmokk in Swedish Sápmi and is owned by Beowulf Mining — a British company headquartered in London. According to their website, the iron-ore that Beowulf would be extracting, would “deliver raw materials critical to the transition to a green economy.”

Beaska Niillas: With this green transition, if every car is to go electric, we need all the copper in the world and more. If every car is going to be electric, we need millions and millions of wind turbines, it would destroy so much living life and so much nature that is still intact.

Della Duncan: According to a report in the Journal of International Politics & Science titled “[The Global South's double burden](#),” greening our current extractive economy in a way that would reach the targets set by the Paris Climate Agreement would require a vast increase in the mining of minerals. Just in terms of electromobility alone, for example, we know that the average electric car requires six times more minerals than one with a combustion engine. A complete transition from conventional cars to electric vehicles by 2040 would require twice as much copper and 40 times as much lithium.

[End Music]

Della Duncan: And I heard you say what you may be wanting to say no to right? The wind turbines and mining. What are you saying yes to in terms of renewable energy or energy sources or alternatives to green colonialism? Like if that's the ‘no’ and what you're saying no to, what's the ‘yes’ that you might work towards or offer?

Beaska Niillas: Yeah, well, that's the question. It keeps coming to us. You only say no, no, no, what can we do then? But I don't think that's a fair question to put on an Indigenous nation. We have always been here. We will always be here, no matter what. I think the world is on the wrong path. The world needs to fix its problems. The extreme consumerism is the problem. It's not that you can't build wind power on our land. That's not the problem. The world has made itself so dependent on this consumerism, this energy consumption — it's grotesque, really, to see how the world works right now.

I believe one product span, was it like three weeks or something before it goes to the garbage, and that's fundamentally different from our perspective or an Indigenous perspective where we only take what we really need. The land is for loan. You take care of the land, the land will take care of you. But because we have this hyper capitalistic system with the consumerism in the world today, then it's a never ending story. So I would like to say yes to survival, yes to culture, yes to less consumerism, less this grotesque thing that is going on.

And that's then we are talking about values. What is really precious in life? What is really precious for our people, what is precious for the world? And that is a good place — the precious thing may be that everyone needs a good place to be a secure place to be, a safe space to be. So, but that is not going on right now because we have these forces that are eating the land alive, so to say so. So yeah, I'm not agreeing on the concept that, ok, you say no to this, you have to say yes to something because we are like in checkmate, if we agree to to that perspective.

[Music: Chris Zabriskie – Cylinder Six]

Matthias Schmelzer: Degrowth is a global justice perspective, and the aim is basically an equalization of the possibilities to live a good life globally. And a precondition for this is to end processes of externalization that are ingrained in the mode of living — in the imperial mode of living that has become dominant in the rich world.

One of the key novelties of the degrowth approach is that it also looks at the sphere of consumption and basically tries to politicize consumption and not just take it for granted. And I think the theory or perspective of the imperial mode of living is very productive in analyzing social life worlds of people and how these have been shaped, powerfully shaped by the the way the capitalist political economy has developed and stabilizing itself through specific forms of consumption.

And these forms of consumption, mainly individual mobility, flying onto vacations, eating meat, using lots of energy. So high energy, CO2 intensive forms of life have become not only aspirational around the globe, but also are spreading. And obviously they are related to some degree, to rising standards of living. But it's a very problematic form this has taken — a form shaped by the dynamics of capital rather than the dynamics of what is good for people. And I think in this regard, it's key to politicize consumption and look how the sphere of consumption is creating all this irrational and useless products, forms of producing and using these that are actually not well for people.

Della Duncan: But consumption doesn't happen in a vacuum. It's very much engineered, coerced onto us even, by the forces of production and profit accumulation instrumental to the global capitalist system.

Matthias Schmelzer: Parts of the degrowth debate have focused too much on these questions of consumption and one problematic version that is not really dominant, but you can find it on the fringe, on the fringes, in the larger critiques of consumption is basically the claim that we as consumers do hold the power and we consume too much. We should renunciate. We should consume less. And this is the main lever for changing society to become sustainable. And I think this is on many accounts, this is highly problematic. Not only is it very inefficient as a form of trying to change the world, it's also buying into a corporate story that has been told to us by calculating individual CO2 budgets to individualize the responsibility for this imperial mode of living in which we are forced to participate. We are not choosing this.

[Music: Chris Zabriskie – Is That You or Are You You]

Della Duncan: The corporate story that Matthias is referring to is an idea that you're probably familiar with: the carbon footprint — a framework for calculating the total greenhouse gas emissions caused by, in this case, an individual.

The idea of carbon footprints however, was actually manufactured by the fossil fuel industry — not to contribute to the greater good somehow, but, according to journalist Mark Kaufman, as outlined in his Mashable article "[The Carbon Footprint Scam](#)," to shift the responsibility of reducing emissions onto individual consumers. According to Kaufman's reporting, British Petroleum, the second largest non-state owned oil company in the world, hired a public relations team to promote this idea that climate change is, in fact, *your* fault. British Petroleum began using and successfully popularizing the term "carbon footprint" in the early 2000s. They even unveiled a "carbon footprint calculator" in 2004 so that people could assess how activities in their normal daily lives — like going to work, buying food, traveling — were largely responsible for heating the globe.

Of course, this is pure propaganda — a way to slant reality, because, thanks to the 2013 [Carbon Majors report](#) published in the journal "Climatic Change," we now know that just 100 companies are responsible for 71% of global emissions. So, yes, of course it's important for us to make climate-conscious individual choices — but that's not going to be enough. Not even close. The real problem lies in the sphere of production.

Matthias Schmelzer: The main thing is that we need to change the context in which consumption happens and the ways the mode of production is actually working.

[End music]

[Sound collage news clips]

Thea Riofrancos: There is a resource intensity to the energy transition, and we can reduce it.

Della Duncan: Here's Thea Riofrancos again.

Thea Riofrancos: We can reduce how much needs to be pulled out of the ground by thinking at a macro and systemic level at the design of these sectors, at the interaction between these sectors, with the goal of decarbonizing them rapidly and reducing their metals requirement, which tends to push us towards more public, shared and collective forms of consumption that per person involve less resource use at the front end, than our very unequal, privatized and very one-percent friendly model of consumption that prevails today in the U.S.

Ana Julia Aneise: What's going to take for the Global South to be able to provide all the minerals, for instance, that they need, that the Global North needs in order to do this transition?

Della Duncan: This is Ana Julia Aneise again.

Ana Julia Aneise: It's not going to benefit the North either, because if we destroy ecosystems the climate crisis is going to get worse. So I think that we're not thinking about global solutions. And I think that that's what people should be aware about because yeah, there should be aware about lots of things. They should be aware about the fact that, like, that indebting, so like Global

South countries is going to get worse because we're going to destroy more ecosystems. And the same happens with mineral extraction and the same happens with everything. But the bottom line is that if we don't think about a global solution that makes it easier for Global South countries to be a part of the transformation that we need worldwide, then it's not going to work for any of us.

Max Aji: What does it look like if we build a social and technological system that is not only democratically managed and egalitarian, but really interrogates the things we need to make sure that they are the most rational from the perspective of the broadest popular access, sustainable access to a decent life.

Della Duncan: This is Max Aji again.

Max Aji: But and this isn't about small, it's beautiful and it's not about minimalist technologies and it's not about gratuitous decentralization. And it's not — certainly not about anti technology. I think people could be living happier lives in highly functional cities and be in better shape and have access to far, far superior healthcare, transport systems. And yeah, we'd have phones that are designed to last ten or fifteen years and could be repaired rather than having phones that are designed to break in a year. And then you need a new one with a resource cost that's just beyond belief, right? These are the types of transformations that a real people's movement in the United States would have to aggressively plan for and advocate and have engineers on board, planners on board, infrastructure management people on board. And that's how you carry out this type of progressive transformation that I think would not involve suffering.

[Music: Lanterns – Hearth & Harvest]

Della Duncan: So what would a degrowth, anti-imperialist, post-capitalist green transition look and feel like? In the second episode of this 2-part series, we'll explore some of the Green Transition policies and programs being proposed by states and grassroots movements around the world. From the false-solutions in the Inflation Reduction Act, to the potential benefits and shortcomings inherent in proposals like the Green New Deal here in the U.S. and the EU's Green Deal, to more radical approaches, like The Red Nation's Red Deal and the People's Agreement of Cochabamba which understand the need to go much, much further. So Stay tuned.

Matt Huber: Because we've been living under neoliberalism for four or five decades, people have just forgotten that the public sector is even capable of doing this kind of big stuff, like big, large scale building and investment. And so, you know, we need to sort of recover that kind of vision of, you know, if we actually build up the social power to take on the elite and the rich and the capitalist class, we can actually harness that investment for public good. It's just hard for people to even imagine that being possible these days.

Thea Riofrancos: What might the public sector do in some kind of synergy with social movements and civil society to kind of push through a rapid and just energy transition.

Sungmanitu Bluebird: The way the Red Deal tries to go beyond the Green New Deal in general that are being put out in country to country. They're not addressing the root of the problem. What they're trying to do is they're trying to paste over the problem and move past

issues that need to be reconciled, whereas the Red Deal wants to reconcile those things — we want to address them and solve those issues, actually rather than just giving lip service to it.

Max Aji: People's Agreement of Cochabamba, a real national, popular, socialist, anti-capitalist, pro-Indigenous anti-colonial perspective on climate change is. You go on the internet and print that thing out for a dollar and go read what are the serious policy proposals that came from a wide range of popular organizations in the South, see what they put on the table and see what they were proposing for the transformation of our world system. And that will blow your mind.

Robert Raymond: Thank you to Chris Zabriskie, Pele, Do Make Say Think, and Sofia Jannok for the music in this episode. And thank you to Bethan Mure for the cover art. Upstream theme music was composed by me, Robbie.

Also, a special thanks to all of our guests in this episode as well as to Tatiana Anderson, Carolina Badillo, and Sara Fernandez for recording news headlines for us.

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[Music fades out]