Transcript: Ain’t No Mountain High, Ain’t No Deep Sea Low

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Mariner, what of the deep?
This of the deep:
Though we have travelled past the line of day,
Glory of night doth light us on our way,
Radiance that comes we know not how nor whence,
Rainbows without the rain, past duller sense,
Music of hidden reefs and waves long past,
Thunderous organ tones from far-off blast,
Harmony, victrix, throned in state sublime,
Couched on the wrecks be-gemmed with pearls of time;
Never a wreck but brings some beauty here;
Down where the waves are stilled the sea shines clear;
Deeper than life the plan of life doth lie,
He who knows all, fears naught. Great Death shall die.

Dane Whicker
A selected portion of the poem deep sea soundings by Sarah Williams, as recorded in her anthology Twilight Hours, first published in 1868.

Today we're going on a journey to one of the most extreme and isolated environments on Earth. And if you live inland, like I do, hiking mountain trails for the sole purpose of climbing upward, it's quite possibly the furthest distance that you'll travel with us by listening to this podcast. Today we're zooming past mountains, prairies, farms and cities, far past the beaches in their crashing waves. We're even voyaging beyond shallow reefs and sunlit forests of kelp angling our gaze downward past submarine canyons and aquatic moment peaks. Today, we find ourselves in a world without light more than 200 meters below the blue ocean surface. Without like, there are no plants, algae or bacteria powered by the sun. This kind of life that forms the base of everything we know on the surface can't live down here, where every meter further ventured downwards adds to the crushing pressure of the water on top of you. So with no lifegiving light and forces that would shatter the surface world, it would be natural to think that nothing alive could exist down here. But almost as soon as we put that assumption to the test, we found it lacking. Set against this inky backdrop, we have watched alien blood red ovals drift peacefully, lines of rainbow light dancing across their form. There are hairy crabs engaging in farming. At features were searingly hot toxic seawater erupts from the ocean crust. There are small shrimp that live their entire lives encased in transparent glass like sponges that are anchored to the sea floor. In the nearby abyssal plains, a potato sized deposit of rare minerals is wrapped in the gelatinous, pale body of an octopus, zealously guarding her eggs to give them a chance at life. Down here, bioluminescence

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creates a symphony of light and color. And these landscapes are far more beautiful than barren. Ecosystems both familiar and alien exist, filled with sea stars bivalves, corals, fish, and even sharks. This remains the last truly wild place on earth. And listeners this wonderful place filled with rainbows without the rain, hidden reefs and pearls of time. It belongs to you, literally, legally, it doesn't matter if you are a mariner or a mountaineer. The deep sea is our common heritage and international law states that you have every right to have a say in how it is explored and used. Which is great because we are standing on the verge of such exploration and exploitation as industries Ibis landscape, as a source of rare minerals and metals that many say are needed to fight the climate crisis. These industries are now just waiting on international policies and regulations to begin the controversial practice of deep sea mining. Like the exploitative industries that came before such as clear cutting forests and commercial fishing, deep sea mining stands to provide a lot of neat things to the market that fuel modern life. But it also stands to do a lot of damage to a landscape we barely understand, and even holds the potential to actively harm us humans as well. Now, it's up to us as humanity to decide, can we regulate this industry properly? Should we leave it alone entirely? Or will we follow past examples of over exploitation and irreversible damage? That is the subject of today's Pekin plunge, the podcast about connecting the heart of the land to the depths of the sea. Join us as we explore these invisible ties that thread together mountains He's 14,000 feet above sea level to abyssal plains. 14,000 feet below. Let's plunge right in. On this episode of Pekin plunge, we're delving into the nuance of the controversial yet still potential practice of deep sea mining. What we do in the deepest reaches of the ocean is both driven by and can have profound effects on those of us who live miles from the sea. If you'll pardon the pun, we brought in someone deeply entwined in this to discuss these very connections.

Mark Haver
So my name is Mark caver. I'm an advocate for action on ocean climate and sustainable fashion. I have a consulting firm called Blue Green generation, where I work with a bunch of different clients, including a couple that relate to the issue of deep sea mining. I've been working with an organization called Sustainable Ocean Alliance for the past six years and both a volunteer and employee capacity.

Dane Whicker
Through this work, Mark is really involved in the nitty gritty of policies and the potential pathways of deep sea mining. He's also been doing this whole ocean thing for a while.

Mark Haver
I started as a young ocean leader, started then to build a hub at my college in Florida, then helped to build out their youth policy program with Youth Policy Advisory Council, including a campaign against deep sea mining. And then in January 2022, I became the Regional Representative for North America and policy advisor. So I do a lot of work to try and get our communities and the US and Canada educated and mobilized about the issue of deep sea mining. I also am working with deep rising. It is a environmental documentary directed by Matthew leets and narrated and produced by Jason Momoa. With

Dane Whicker
With his experience in policy and advocacy, as well as his second degree of connection to Jason Momoa. I sat down with Mark in order to learn his insights and perspectives on this strange twisting

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topic. Specifically, I was interested in how deep sea mining and inland residents are intertwined. And he hit me with quite the doozy.

Mark Haver
Per the mandate of the International Seabed Authority, per the UN Convention on the Law of the Sea. The seabed is something that belongs to you. The seabed is something that belongs to me. The seabed is something that belongs to each and every one of us. What belongs to you, and what belongs to me is being doled out behind closed doors without our consent. It is something where you actually have the right to engage in this conversation. Whether you're living in Arizona or whether you're living in Polynesia.

Dane Whicker
Looks like Mark just made my case for me. Podcast over. Thanks for listening!

Okay, okay, fine. Back up a second. Admittedly, that's quite a jump there. Here we are, disembodied podcast voices, telling you, yes, you that you kind of technically owned some land at the bottom of the ocean. What? How can that be? And why is this even important? Well, to explain that, I want you to take a minute to reflect on just how my voice is getting to your ears right now. Are you listening to this podcast through your computer, smart speaker, maybe you're listening in your car, maybe you're a cool trendy person with an electric one even. Or maybe like me, you get all of your podcasts through your smartphone. See, it doesn't really matter how this little podcast ear interaction is happening. All of the technology and electronics that make it possible are dependent on minerals, metals, and rare elements that are extracted from the earth. And this is true in lots of places, the buildings that you live, work and play in. All those are full of copper and aluminum wiring. The metal that your car is made of, well, iron needs manganese nickel or another metal to alloy with in order to make steel, your laptop, your smartphone or your electric vehicles battery. Well those need lithium, nickel, cobalt, manganese and more. The point is a lot of the modern amenities that we use to traverse and interact with our world requires a steady supply of what are known as critical metals and minerals. And right now, those are coming from terrestrial that's land based sources. These terrestrial mines can be found across the world, with dominant mines occurring in China, Indonesia, the Democratic Republic of the Congo, Chile, the United States and many many more. These critical minerals aren't just for technological niceties either many forms of clean energy technologies like solar panels and wind turbines. are currently reliant upon them as well. So without a further critical eye, this sounds okay, right? Yeah, take a few metals and minerals that are just hanging around underground, you use the power of human ingenuity to shape them into forms that help us stay connected and will power a less fossil fuel reliant world. But terrestrial mining for these materials, of course comes with its own set of complications and problems. Not only are there environmental damages from contaminated waterways, chemical runoff and air pollution, there are huge social issues as well, from the displacement of indigenous communities to literal slave and child labor. It's not exactly a free lunch. And to add to all of this, some research predicts that these terrestrial sources may be running out. So enter stage left the idea of deep sea mining,

Mark Haver

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yes, deep sea mining. Well, it started actually 100 years ago, scientists found these baseball sized polymetallic nodules sitting on the abysus on the seafloor,

Dane Whicker
these polymetallic nodules he's talking about. They kind of look like lumpy metal potatoes that just sit on the seafloor. I

Mark Haver
love the fact that you just call it a polymetallic, nodule and metal potato. That's brilliant. I love that

Dane Whicker
these polymetallic nodules exist in lots of places in the deep sea. But right now one of the prime areas of interest is in an area between Hawaii and Mexico, known as the Clarion Clipperton zone.

Mark Haver
These polymetallic nodules contain critical minerals and metals, lithium, cobalt, manganese, copper, nickel, zinc, these are the very materials and nowadays that are essential pieces of low carbon technology like batteries and electric vehicles. This is the exact push that the deep sea mining industry is trying to make. We need critical minerals and metal metals for the green transition. Let's source them from the deep ocean.

Dane Whicker
There are several different types of deep sea mining, including targeting cobalt rich crusts of underwater mountains, and extracting sulfides from hydrothermal vents. But for this episode, when we say deep sea mining, we'll be mostly referring to the collection of these polymetallic nodules, as it's the type that seems to have the most attention and interest right now.

Mark Haver
Now, what does this process actually look like? You have a vessel that sits on, you know, on the water above the site where they're looking to mine. And there are a couple different ways that they can actually go about extracting the polymetallic nodules on the bottom of the seafloor, they might have something that looks like a giant vacuum, they might have something that looks like a remote operated vehicle sitting above the seafloor, they might have something that looks like a tractor sitting on the seafloor itself. It can look you know a couple of different ways. In some way or another, they suck up the polymetallic nodules from the seafloor. One

Dane Whicker
study of these polymetallic nodules, claimed that in the Clarion Clipperton zone alone, there was a supply of nine of these critical minerals that exceeds the entirety of their terrestrial supply. That's pretty nuts. So that's the main idea behind the companies interested in mining, just go suck up some rocks off the seabed, use those rocks to fuel clean energy and alleviate some human rights issues along the way. Bingo Bango boom. But that's not the whole story. Sure, again, it sounds great on paper. But there are a few key pages missing from this narrative. Like all extractive industries, there will be real

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consequences of letting this proceed without proper understanding and regulation. And right now, we're practically shooting blind.

Mark Haver
Every single time there's a deep, deep sea expedition, dozens of new species are discovered. We haven't even mapped 30% of our seafloor, but we know what the surfaces of the Moon and Mars are. We don't understand how the deep sea connects to the ocean carbon pump. And there are studies that actually say that the deep sea may be the planet's largest carbon sink more than the Amazon rainforest, the Congo rainforests, all these rainforests combined. And so there are a lot of questions that are unanswered about what the true effects and impacts of deep sea mining are in this unknown ecosystem.

Dane Whicker
This lack of information is one of the biggest concerns that scientists Express when it comes to the issue of deep sea mining. And the few studies that we Do have can be a little concerning with a few studies out there, suggesting that by stirring up the sediment and mining, we could release carbon that has been buried for 1000s of years and potentially accelerate climate change, you know the exact opposite of what we're trying to do by mining these minerals. Still, even if we ignore the stuff that we don't know for certain and focus entirely on the stuff that we do, the narrative is a little more concerning than simply vacuuming up some rocks off the seafloor. But

Mark Haver
what we do know is that these ecosystems have spent 10s of millions of years developing the polymetallic nodules grow millimeter by millimeter, not over a timescale of a decade, not over the timescale of a century, not over a timescale of 1000 year. Okay, they're growing really slowly. The organisms that live there have adapted to this extreme environment over you know, these millions of years.

Dane Whicker
One particular example just so happens to be one of my favorite deep sea organisms, which is actually reliant on these nodules themselves. The ghost octopus, which is adorable, by the way, lays their eggs in sponges that grow off of the nodules themselves, meaning part of their lifecycle, not to mention that of the sponge is reliant on the existence of these nodules. And so,

Mark Haver
when you disturb this ecosystem, it's not going to recover and human lifetime, and a generational timeframe, it's going to take literally 10s of millions of years for this thing to come back. So the damage that's caused by deep sea mining is irreparable, it's permanent. Not

Dane Whicker
only is it permanent, it's also way further reaching than just the bottom of the ocean itself.

Mark Haver

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When they pluck the nodules from the seafloor. Not only is that causing direct habitat damage, because there might be you know, sea fans, important bacteria living on the nodule itself. But when this is done in an epistle plane when this is done on a seamount, when this is done on a hydrothermal vent, the plucking of the nodule causes a sediment plume that can stretch for several 100 kilometers from the site itself. This is the deep ocean, where animals use bioluminescence to communicate, where they use echolocation, especially with the whales and dolphins, our favorite creatures of the ocean probably for money. With the sediment plumes, it really inhibits their ability to use sound and light to communicate and this unique ecosystem that they have had to adapt to because it's so extreme. So from the site itself, you have direct habitat destruction, the sediment plumes Well, what else?

Dane Whicker
What else indeed? According to Mark, this is where things get a little scarier for those of us who live inland.

Mark Haver
So then, the sediment and the nodule itself are sucked back up to the surface where the vessels waiting out to sea surface. And then that material is being processed. The process of separating the metals and minerals from the nodule and from the sediment as a toxic process, and that wastewater is pumped back into the ocean. So there's actually two plumes, the first of which is the sediment plume, where the nodule was plucked from the seabed. And the second comes from the sea surface where the where the material is being processed. When you're putting toxic wastewater back into the water column, it bio accumulates and the organisms that live there.

Dane Whicker
this concept bioaccumulation means that these toxic chemicals will get eaten or absorbed by small animals in the food chain, a large number of which will get eaten by the next biggest thing in the chain, accumulating more of the toxin in the predator than the prey. This cycle will repeat, meaning that the most toxified animal is the predator at the top of the chain. This is well documented in things like methyl mercury poisoning, which is an existing concern in top predatory fish that we eat. All this is to say that this argument isn't just about saving the creatures, it could come back to a save ourselves argument as well. Deep

Mark Haver
sea mining is mostly targeted in international waters that are just southwest of Hawaii. This is an international water zone known as the Clarion Clipperton zone. It's huge. It's bigger than Belgium. This is a really important migratory path for tuna. Lots of people eat tuna and tuna are at the top of the food web in the ocean. So They're gonna have the highest exposure and highest concentrations of toxic metals and their blood, and then we eat them. Hmm. For us to further you know, toxify our foodweb is not a good idea, especially considering the variety of impacts that happen all across the production system of deep sea mining.

Dane Whicker
Personally, I love tuna. Not only is it an incredible fish in its own right, but living inland, my food is one of the major ways that I interact with the sea. It's already hard enough to find sustainable sources with

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traceable supply chains when you don't live on a coast, but having to worry about the potential toxicity of my food to now that may be a reality in a future where deep sea mining is allowed to proceed with no or poor regulation. Though speaking from personal experience, I do have many friends who don't eat fish and maybe feel that the impacts of toxic sediment and noise pollution are too distant to give any bandwidth to which is understandable. But the deep also holds the potential for treasures far beyond seafood or charismatic marine mammals.

Mark Haver
So it can really be hard for people to feel tangibly connected to an issue like this, why should I care? Well, there's an argument that could be made about biodiversity in its own right. There's another argument that could be made with respect to the potential for deep sea metals and minerals and ecosystems and whatever it may be, especially with deep sea ecosystems to provide pharmaceutical use. In fact, deep sea organisms are part of the reason why we have COVID tests. The same test that we use to like swab our nose and test to see if we have COVID. Well, you can thank a deep sea organism for producing these tests.

Dane Whicker
Mark is right here. The organisms he's talking about are deep sea bacteria that are found residing on hydrothermal vents, one of the area's potentially targeted for mining, enzymes produced from these bacteria are one crucial piece to the nasal swab PCR tests, I'm sure many of us were subjected to during the initial COVID times, going through that test was certainly unpleasant. But thanks to these enzymes, the accuracy of the COVID tests was quite high, meaning less overall brain tickles for me, and a higher level of trust in the results. And that's just one example of the medical applications the deep sea could inspire. It's already being used in some treatments for nerve damage, inflammation, and even some cancer treatments. And that's just with the relatively little exploration and research we've done.

Mark Haver
There's a lot that we don't know about the deep sea, there's a lot that we don't know about as pharmaceutical application. I think we're all like questioning what is there going to be a cure for cancer. I'm not saying it's gonna come from the deep sea. But I'm not not saying it could come from there, especially because it's so under researched. And we know so little. To

Dane Whicker
me, it doesn't matter where you live, having a long and healthy life is pretty important. So that just adds to this conversation. And the question that deep sea mining asks, Are we really okay with losing this medical potential? Are we really okay with risking biodiversity loss toxifying our food, or maybe even releasing more carbon into our atmosphere, there is the potential for deep sea mining to save lives and fight climate change with these minerals. But these are the sorts of trade offs we really need to be examining for this conversation. We aren't just going in and slurping up ready made potatoes off of a barren sea floor. This is a hard question to face, simply because we lack so much information. But remember what Mark said earlier, and

Mark Haver

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so when you disturb this ecosystem, it's not going to recover. So the damage that's caused by deep sea mining is irreparable, it's permanent.

Dane Whicker
We end up faced with a pretty interesting truth that these conversations matter, because we are standing on the precipice of a choice that we will not be able to take back. That matters not only to the animals living in the ocean, but to the fishermen who could be affected by sediments and toxins. It matters to anyone who enjoys food from the sea. It matters to the researchers trying to cure diseases that impact our lives profoundly. And it matters to every person on this planet who is affected by climate change. That is to say all of us, rising sea levels, increased storm intensity heat waves, this is something with a global scope. But what about the other side to all of this, the benefits that we would gain from it Straight offs, we've seen that there are a lot of potential harms here, some that we may not even be able to predict. But do the ends outweigh the means there still exists a large push for this industry to happen. So it's worthwhile to wonder if there's a kernel of truth to the statements from the industries still interested in pursuing mining. After all, climate change is a very pressing threat. And we will still want our smartphones and our cars going forward. So will deep sea mining really be unnecessary industry to meet the needs of a modern world, I

Mark Haver
mean, in the current landscape of what materials, we need to be able to produce these important technologies that are going to help us transition away from the carbon intensive world in which we live. Yeah, there is some truth to it. When

Dane Whicker
talking about the current landscape of what materials we need, this is in part referring to existing climate promises made by governments around the world, all of which point to a fact that the global demand for these critical minerals is expected to grow. One market review published by the International Energy Agency, or IEA, reviewed over 200 of these national policies that are aimed at a low carbon future. And the data seems to point to a 350% increase in demand by 2030. If they are to all come to fruition with our current technologies and knowledge. With this predicted increase, those who are pro mining, again, point to the fact that terrestrial sources and supply chains aren't necessarily going to be up to snuff. So the problem that deep sea mining would help address is potentially real. But is deep sea mining, the only answer providing a more sustainable path forward to mark again, there are crucial pieces of the story that are missing. Deep

Mark Haver
sea mining internationally, is going to be something that takes a long time to actually do on a commercial level. First of all, the ability for someone to actually get down there and start start mining has been pushed back to 2025. Pretty much. The reality is, is that like commercial operations, and being able to get these metals and minerals in the market won't happen until like 2026 2027. Like it's going to take a long time for us to get there probably even even longer, because the physics and logistics of being able to, you know, mass, harvest these nodules, and then get them on the market and find buyers and whatever, like Yeah, that's going to take a long time, time

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Dane Whicker
that could be spent, according to Mark and other ocean advocates investigating other pathways forward for solving this problem. A 2022 Time article, co written by legendary ocean experts, Sylvia Earle and professor of sustainability at UC Berkeley, Daniel Kahneman examined this argument that we need deep ocean minerals. And in the end, they straight up called it a lot. They argue that we don't need deep sea mining at all, that it is possible to source lithium and cobalt directly from seawater. And that a circular economy. That is the recycling of our old phones, cars and other technology has this ability to significantly contribute to the demand. But perhaps most compellingly, they point out that innovations in battery and energy storage are already finding ways to produce better batteries without the need for deep sea minerals at all. On the other side, you have economists who question the true capacity for a circular economy to contribute in meeting that demand, as well as questions swirling about the scalability of technologies like sea water extraction. These arguments from both sides seem to make the truth super muddy. On one hand, you have sources like the IEA report pointing to a crisis without mining. But you also have peer reviewed studies and top scientists casting doubt on that notion. And throwing further mud on the mud pile is the narrative marketing from the mining companies themselves.

Mark Haver
I've watched ads coming from companies, especially looking to mine, the deep sea and Norway. And if I hadn't been engaged in this issue, even as you know, an advocate for climate action, ocean action, I would have been fooled about the sustainability of deep sea mining operations. It's becoming increasingly hard for the average consumer or even the informed consumer to have the right amount of information that allows them to be literate on a topic and especially with an issue like the deep sea where it feels as tangible where it feels more unknown. It becomes a really dangerous game to play.

Dane Whicker
These ads kind of put deep sea mining in this hero position. claiming that it's not only necessary but sustainable as well. But for Mark and other ocean advocates, this ignores an inherent principle of the green transition itself, green

Mark Haver
transition. So we're looking to transition away from non renewable energy resources by using non renewable resources for technology. You know, it's all part of the same logical gap, it's kind of clear that we need to move away from a world where extraction and exploitation are the bases for economic development, even if it's in the name of sustainability.

Dane Whicker
On top of all that, there's one more interesting twist here.

Mark Haver
Well, specifically on the issue of deep sea mining, what's really interesting is that the companies who had probably stand to profit most from being able to use critical metals and minerals have actually all agreed that this is a bad idea, and join the coalition for a moratorium on deep sea mining. I'm talking about the world's biggest electric vehicle producers fall follow Renault, Ford, Tesla, BMW, the list goes on of all these different car companies that have basically said, No, we're not going to source the

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metals and minerals that we need for our electric cars from the deep sea. That's a frickin bad idea. The same is true from Tiffany. The same is true from Patagonia. The same is true from Samsung and Microsoft and Philips.

Dane Whicker
Well, that certainly paints an interesting picture. When you have environmental advocates and certain parts of the industry. On the same side, it's enough to at least give this whole thought process, a little bit of pause. But what about that last argument that deep sea mining would help alleviate the damages of terrestrial mining?

Mark Haver
I think it's also a fallacy that deep sea mining will displace mining that would happen. Normally, in places where it's currently being done, or in the future going to be done. This, this value chain is not going to stop there from being human rights abuses and environmental damages in Indonesia and the African Congo and Latin America. That's not going to happen. It's not going to shut down the mining industry. terrestrially unfortunately, it's going to be an additive damage. You know, it's like kicking your grandma and she's already down. I don't think we should do that.

Dane Whicker
So when you add all of this up, uncertain, but non reversible ecosystem and climate impacts, potential toxicity in our seafood, no guarantee for alleviation of current terrestrial mining abuses, and uncertainty in the very necessity of it all. It begins to make sense that you have voices calling for a ban on the practice, or at the very least a moratorium, a pause, until certain conditions regarding environmental harm, governance and social licence can be met. But who even has the power to set and enforce these conditions? The Clarion Clipperton zone and indeed, most of the biggest areas of interest for deep sea mining, are outside of any one country's authority being in that nebulous realm of international waters, which means this whole thing is subjected to the wild and wacky world of international law. Yeah, so

Mark Haver
the International Seabed Authority is a pretty obscure UN agency. Most people probably haven't even heard of the UN Convention on the Law of the Sea. They might have heard news about there being the development of a high seas Treaty, which goes back to enclose earlier this year. But still, the International Seabed Authority remains this wacky and unique UN body headquartered in Kingston, Jamaica.

Dane Whicker
The UN Convention on the Law of the Sea, also called unclose, is an international treaty that was established about 40 years ago, in 1982. It's kind of like an international Constitution for the oceans. It codifies formal definitions and laws regarding all things ocean, including how we define a country's territorial waters. What kind of transit is legal pollution, regulations and more. This treaty is what established the International Seabed Authority or ISA, an intergovernmental body that manages and regulates ocean resources in the areas outside of any one nations jurisdiction. That is those international waters. And remember what Mark said at the beginning of the episode, part

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Mark Haver
of the mandate of the International Seabed Authority Per the UN Convention on the Law of the Sea, the seabed is something that belongs to you. The seabed is something that belongs to me. The seabed is something that belongs to each and every one of us. That is

Dane Whicker
pulled directly from the language in enclose, which defines the seabed and its resources as the common heritage of mankind. Law and Policy can be super tricky and confusing, especially on the international stage. But those few words right there are powerful. Just those few words are what gives someone like me in Colorado, just as much right to be involved in this as someone who lives coastally per the treaty, the ISA has a responsibility to safeguard the seabed, and to ensure that any activities there are both peaceful and benefit all of humankind, with those benefits being shared equitably. Pretty big deal for a governing body that you may not even be aware existed. As it stands, the ISA has 167 member states plus the European Union. All of the member states make up what's called the assembly, which has the final say on all of its regulating. But most of the action at the ISA happens through its Council, a body of 36 individuals elected by the assembly to do things like write those rules and procedures, or contract with governments and private companies. At the head of it all is an assembly elected secretary general who serves as Chief Administrative Officer. For a time since its inception, things were super exciting at the ISA. Now

Mark Haver
lesson, there are many countries around the world who have diverse portfolios to manage at the UN, but lack the resources to support the ring research and engagement on every topic. When you're a developing country whose citizens may be dying at age 50 because of diabetes, sending people to the International Seabed Authority to discuss an issue that really no one on the delegation cares about or understands, is not going to be something that you're going to prioritize. So it's faced very limited engagement from states from countries from parties. Ever since its inception. Ever since the UN Convention on the Law, the sea was like created and

Dane Whicker
passed. But recently, due to the push from countries and companies wanting to mine things have gotten interesting. Now

Mark Haver
things have changed, things are getting spicy at the International Seabed Authority. Because there's been this two year trigger that a Pacific island country called now rule polled. There was this weird clause in the UN Convention on the Law of the Sea. That basically said if an exploitation permit was submitted, like an application, then the International Seabed Authority has two years to basically create regulations about that exploitation process.

Dane Whicker
Here mark is referring to a Canadian based corporation called the metals company, who is sponsored by the Pacific island of Nauru. They submitted their intentions to mine back in 2021. This invoked what's referred to as the two year trigger wording within and close that basically said, Hey, International

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Seabed Authority, you have two years after that two years is up, we get to mind with whatever regulations you have in place by then, even if you don't lift a finger to set them. This was the topic of the day when the ISA convened in July of 2023. That

Mark Haver
hasn't actually happened. Luckily, two years has passed since then. And a bunch of countries came together and we're like, two years is not enough. We're not done with these regulations, they're not going to be able to fulfill the stringent environmental standard that we'd like to set for this type of activity and behavior. So we're going to need more time. And now Rue has kind of backed off a little bit. There was an assembly meeting. And they said, Okay, well, we're not going to submit the exploitation permit immediately. We're not going to begin mining immediately, but we'll do it in the future. I don't know if that means November. I don't know if they mean in 2025. I don't know if they mean in 2030. So it's dangerous. It's dangerous because this is a body that doesn't necessarily have the structure or process on how to go forward with this type of activity. They are figuring out things for the first time. And the people who are there are not well read into this issue is limited engagement from states. There are many observers who can't fully participate in the way that they wish they could or have the access to an other UN fora.

Dane Whicker
When Mark says observers he's referring to nations like the United States, who has yet to formally ratify the United Nations Convention on the Law of the Sea. Because of that the United States has no voting power on the ISA assembly, acting only as an observer in the ISA sessions. To further complicate things like this, a lot of these sessions take place behind closed doors not being open to the public, leading to concern from scientists and advocates alike. In a times insider article, reporter Eric Lipton expressed the curious frustration that came with trying to meet with isa diplomats, recalling the need to find a Jamaican jerk chicken restaurant that they frequented after being denied previously arranged meetings at their headquarters. And this particular anecdote is just the tip of the iceberg of questions that have begun to swirl around the ISA and its workings with some people blatantly accusing it, and its secretary general of shady behavior in the name of personal profit.

Mark Haver
This is the only UN agency that has its own Secretary General. There is the big guy, Secretary General Antonio Gutierrez, who manages all the UN. And then there's Secretary General Michael lodge of the obscure International Seabed Authority. There was no oversight body responsible for managing the International Seabed Authority. The only way that it can be checked is by bringing a legal case to the international tribunal on the Law of the Sea, which is also quite obscure. So there's been a lot of shady behavior over the past two years with Michael lodge as the secretary general information about the environmental impact assessments that they're that the companies who are looking to mine are submitting information about the area where they're looking to mine and also feedback on those assessments has been shared with the companies before it's been shared with the member states.

Dane Whicker

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This is in reference to a string of emails, letters and documents from the metals company that showed that its executives received key information from the ISA itself that some argue gave them an edge when it came to setting aside which areas would be reserved for that particular company to mind.

Mark Haver
The secretariat is more interested in directly communicating with the companies to advance a pro mining agenda, then communicating with the parties who should actually be guiding how this process moves forward. These are sovereign countries, and it is absolutely their right and their interest to be able to create an agenda and move on that agenda. However, the Secretariat has worked very hard at turning the International Seabed Authority not into a body that listens to the sovereign will and interests of the Member States itself. But to advance this pro mining agenda and to be able to encourage development and mining codes for the exploitation of deep sea mining of deep sea metals and minerals as soon as possible.

Dane Whicker
These sorts of suspicions would be very serious if true, as the ISA has a duty to equitably regulate the resources of the deep, meaning that giving a certain company an advantage is against the very wording of the treaty. Beyond this, the Secretary General is forbidden from having any kind of financial interest in the mining operations that the ISA authorizes. Still, even if there was no financial stake or renumeration to be had, I asked Mark about how advancing mining interests plays with the whole point of the ISA and enclose itself.

Mark Haver
The language itself is very much about the safeguarding and protecting the marine environment period. That's in the preamble. You know, this was written in 1970. We didn't have the information about how deep sea mining affects the marine ecosystem when this was written. Now, it's clear that deep sea mining damages the environment irreparably. But the way that they're trying to advance the mandate and process at the International Seabed Authority completely forgoes that part of the preamble about safeguarding and protecting the marine environment. It's really just about advancing how we're going to go about extracting these metals and minerals for the profit of very few, very few people.

Dane Whicker
These concerns aren't limited to just mark either. Journalism from the New York Times, The Los Angeles Times and The Guardian have all examined these questions raised over the secretary its potential conflicts of interest. Earlier this year, the German government even sent a letter to Michael lodge himself, expressing concerns that he was abandoning his duties of neutrality and actively taking sides, something outside his administrative power and was sponsibility as Secretary General to do, Lodge has responded with his own letter defending himself and calling the accusations of him taking sides baseless and unsubstantiated. reiterating that his remarks did not take sides or call out specific delegations. Overall, lodge still vocally maintains his commitment to fulfilling the mandate of EU close to properly regulate mining within the context of environmental protections. Still, some remain unconvinced by the Secretary its words instead citing his actions.

Mark Haver

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Now, I don't have information specifically about what will be the renumeration that Michael lodge receives when these projects go forward. But I do think it's extremely strange, the friendship and communication that he has with people like the CEO of the metals company, Jared Baron, I think it's extremely strange that oftentimes, he's the keynote speaker at DFC mining summits with a pro mining agenda. He's at the launch of technology, like giant tractors that are going to demolish deep sea ecosystems as they trawl across the seafloor. He's seen They're applauding and celebrating the development of something that will allow them to mine in a quite destructive fashion.

Dane Whicker
In statements to various media over the past few years, Lodge has stated his belief that environmental impacts of mining are predictable and manageable, as well as restated that commitment to safeguarding the marine environment with the best available science. But while lodge believes the impacts are predictable, and of little concern, a growing number of Isa assembly members have come forward with statements to the opposite effect, saying that there just isn't enough data yet to make that claim. As of this recording, a total of 21 member states have caused for a pause or moratorium on mining. For these reasons and more. Some have gone even beyond citing this lack of data.

Mark Haver
In fact, countries like Chile, Costa Rica, and Germany have actually gone to the press about corruption by the secretariat. There was a really interesting the Guardian article and New York Times article that was released in March earlier this year, where basically these delegates are saying and the ministers of environment from France, Germany, Costa Rica, and Chile are basically calling out the corruption that's existing and this weird agenda that's not being pushed forward by the sovereign member states, but by the secretariat. So there's a lot of contradictions within the International Seabed Authority and a lot of quirks to it. But that's kind of how we've ended up where we are now.

Dane Whicker
Now, I don't know about you listeners. But all this unclear information policy talk and drama is enough to give me a bit of a headache. acronyms, assemblies, councils, mandates, regulations, suspicions and technical wording all about this deep ocean ecosystem that is so far away. So let's take a minute to recap a little bit with everything that we do know what, there are regions of our planet in the deep ocean that are home to incredible biodiversity, a wealth of animals living among resources that humans want to mined. These metals and minerals are claimed to fuel clean energy policies and existing industries, especially in the tech sector that provides us our smartphones, cars, and more to mining operations in these ecosystems will undoubtedly have impacts on you, no matter where you live. If mining proceeds, habitats and animals will be destroyed. Sediment plumes and toxins could impact the safety and availability of seafood in your local markets. Medical research could be impeded, and disturbances on the sea floor could potentially accelerate the harms of the climate crisis by releasing stored carbon from the deep. Three. These decisions that impact everyone on this earth are largely being made by a 36 person Council, led by a secretariat, behind closed doors in such a fashion that questions about corruption are hard to sort the truth of for the language of the treaty that established this governing body says the deep sea is the common heritage of mankind. Meaning that you Yes, you legally have ownership in the deep sea equal to any other human on Earth. Let that sink in a bit. This is a super unique situation that doesn't arise all too often. It presents us with an interesting opportunity where we

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have an ability to have a say in the direction of an industry that hasn't started yet. Whether it stops entirely, whether we put a 10 year pause on it and then go ahead with stringent regulation or whether we just go ahead and repeat the exploitation patterns of the past.

Mark Haver
We didn't have this chance that the climate crisis. Now we have this off portunity to prevent it from worsening, and to prevent it from a crisis whose impacts we don't even fully understand. But

Dane Whicker
what can we do though? In other words, how on this blue earth do we flex that legal right? When these regulatory bodies feel so opaque and obscure?

Mark Haver
Well, I love to share that there's actually a very robust and well organized activist network that can connect you with so many different ways of being able to engage in so many different levels. It's called lockdown action. It's organized by French ocean and climate activists, namely on Sophie Rue and Camille ATN. And they've been able to create national movements against deep sea mining, that has led to more than a handful of countries after this public pressure, declaring their support for a moratorium. As an activist, you rarely get to say, Wow, activism works. You know, it's always an uphill battle, trying to change perspectives, trying to change policy from a grassroots orientation. But we've seen it happen from being able to go ahead and call out the metals company on the doorstep of their headquarters in Vancouver, Canada. One week later, seeing the federal Canadian government declare a moratorium on deep sea mining and national waters and then six months later, supporting an international position of the same sort at the International Seabed Authority to be able to see 1000s of comments on Norwegian ministers Instagrams, asking for them to reverse this policy. Hearing about 1000s of emails flood, the inbox of the French Minister of the sea, asking them to take a more favorable approach on deep sea mining was what ultimately led to this radical position from a country like France, calling for a ban on deep sea mining, connecting with lockdown action is not just a good way to get involved, but it's also like, really incredible to see it actually work. Seeing ocean activism make a difference is truly like an exciting experience and something that's really invigorating. And I recommend connecting with them to be part of that excitement.

Dane Whicker
Beyond connecting with activist networks, Mark was eager to remind us of the power of connecting with our own elected leaders.

Mark Haver
I think on the national level in the United States, there's more than a few ways to connect, the first of which is through federal legislation. A representative from Hawaii at case has introduced two bills against deep sea mining, please look into those bills, and call your congressman and ask for their support for these pieces of legislation. And for all those who may be calling in from a coastal state in the US. Maybe it's an opportunity for you to also encourage your state government to issue a moratorium on deep sea mining. Every state that issued a moratorium is more pressure on the federal government to adopt a more aggressive policy at the International Seabed Authority to stand against

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deep sea mining. We already have deep sea mining moratoria in California, Oregon, and Washington, so shout out to the West Coast. But who knows, maybe there's an opportunity for East Coast states and Gulf States to join as well. We also need Alaska, thinking about her up there. So there's a bunch of ways to get involved. Now,

Dane Whicker
understandably, connecting with officials is something that can be hard to do. But Mark was eager to remind us of the kind of power that having your voice heard can have. Yeah, I mean,

Mark Haver
obviously each national system is different. And people respond differently to public pressure applied in different ways in different national governments. But what we've applied in different national contexts, has worked. So even though I can unlearn understand how unenthused someone may feel about the American political system. Truly, we're not asking for much more than a minute of your time to be able to sign a petition or send a one click Email or anything like that. The risk of being able to do that is so worth the reward. Even if you think it's not making a difference. It's adding to the litany of pressures that they're receiving on what's becoming a daily basis. And if you're not making your representative aware of your position on the issue, know that the metals company has lobbyists, okay. They can either listen to their constituents or they can listen to lobbyists. There's many representatives that follow the will of lobbyists because If they don't hear about this issue from their constituents, especially with, you know, one of these framed obscure issues like deep sea mining, they're probably really interested when they're seeing emails come through their inbox from their constituents that are actually asking for them to do something about it. Like, what the heck is this? And why am I getting so many emails about this? I think it can make a difference. I completely get that perspective. But once again, it's like,

Dane Whicker
why not? The importance of this mindset for Mark goes beyond just one single issue. It's about so much more.

Mark Haver
We exist in a society now where it's very difficult for us to not see how the environment is being damaged, whether it's by climate, whether it's by plastic pollution, whether it's by habitat, destruction, whatever, you know, inland residents, I think we're all no matter where we are experiencing all different forms of climate change. I don't think anyone wants to see that get worse. We don't understand how deep sea mining is going to affect the climate. What we do know is that the deep sea is a significant carbon sink, especially when it comes to the sediment the has settled over millennia on the seafloor, disturbing that while the science may not be completely there, logically, sounds like a bad idea. You know, I don't think any of us want to see more wildfires, I don't think any of us want to see more floods. You know, I think it's touched to many of us personally. And it's hard for us to deny the way that it's touching more and more people. The precedent and momentum that we can set from a success story. And this story is something that will galvanize us to be able to build a future that's not aligned with the interest of the generations that have set the script before us, but allows us to write our own for what we want the world to look like. And I think that's inspiring. And I think that's positive. And I think it's something that's quite possible. So I hope that no matter, you haven't even been to the ocean, or you're

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in the ocean every day, is something that can unite all of us along a common vision for what we want our future and our current reality to look

Dane Whicker
like. If I got one takeaway from my talk with Mark, it's that as an inland resident, you may not see many petitions floating around about deep sea mining. But that doesn't mean the issue doesn't matter to us, or that our voices are any less powerful. If anything, it highlights the need for us to have a say in writing that future that he talks about, especially in this issue that impacts our food, our medicine, our climate, our technology, and the use of land, we legally have a right to,

Mark Haver
I think it all comes back to like the legal precedent for them to have stakeholder ship and the issue. I may be a coastal resident. You know, there may be people who live in Hawaii, which is literally right next to where they're looking to mine, you have just as much of a right to claim the seafloor as they do legally. I think it's just all on our common interest to stop adding to the issues plaguing our planet, especially when we have an opportunity like this, I'm going to come back to the fact that this industry hasn't started. Well, what a cool opportunity we have. Whether you're a millennial, either your Gen Z, whether you're a Gen alpha, to be able to look in the face of prospective environmental destruction and say, we stood in solidarity with each other. And we prevented this from happening. What a legacy for us to leave, not just for future generations, but to each other.

Dane Whicker
That's gonna do it for today's episode of peak and plunge resources, like the Instagram for lockdown action will be linked in the show notes alongside all citations used in this episode's writing. Special thanks to Mark haber for his time, passion and expertise on this obscure but globally important issue. Thanks as well to the inland ocean Coalition for helping in the production of this series. And for connecting me with Mark when it comes to establishing that inland voice for these kinds of ocean topics. These are the people out there blazing that trail, and helping set a precedent for an inspiring future. And of course, thanks to you for listening. These conversations are nuanced and sometimes muddy. But with each one of us that engages with and cares about these issues, the future looks just a little bit brighter. That's just as true for inlanders as it is for coastal or Island residents. I see you all out there. Thanks for plunging in with us. We'll see you next episode.

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