

We Need Miners and Cheap Drugs

Featuring:

Sam Block, ESG Researcher, MSCI

Namita Nair, ESG Researcher, MSCI

Mike Disabato:

What's up everyone and welcome to the weekly addition of ESG now, where we cover how the environment, our society and corporate governance affects and are affected by our economy. I'm your host Mike Disabato and today we have two stories for you. The first is about metals. Specifically, the ESG challenges involved in mining for metals needed for low carbon technologies like batteries and wind turbines. And the second is about a novel way a pharmaceutical company is trying to make drugs more available to underserved countries. Thanks as always for joining us, stay tuned.

Mike Disabato:

Everyone wants to get into the mining industry these days, the extractive industries has seen a flurry of interest as the rush to decarbonize our economy sparks a rush to control the metals those low carbon technologies need to work such as cobalt, nickel and lithium which are essential components in many current and developing energy storage technologies, such as batteries. Even to Dikembe Mutombo is getting into the action.

Mike Disabato:

The seven foot two former NBA All-Star player recently set up a one billion US dollar fund to invest in cobalt mining companies in his home country. The Democratic Republic of Congo where about two thirds of cobalt is currently located. Actually, I'm really excited about this fund because Mutombo told the New York Times when recently asked who his co-investors were, that he spoke to quote all the billionaires in the US so that's fascinating stuff. This union between metal and low carbon can sometimes create something of an ESG paradox.

Mike Disabato:

On the one hand, mining is a fundamentally challenging sector when it comes to ESG. And on the other hand for renewable energy to be feasible and a possible solution to fossil fuels, we need things like batteries. That's why this story continues to fascinate me, especially when it comes to ESG investing. It's much easier to invest in a battery company if you're an ESG oriented investor than it is to invest in a mining company that provides the materials necessary to build that battery.

Mike Disabato:

One has relatively fewer ESG challenges than the other. But investing in Tesla, for example, means you are investing in the extractive industries whether directly or not. So it's good to know what you're getting into when you sit down and decide to put your money into a low carbon tech company. So I want to help elucidate this matter for everyone... Well, at least try to. And luckily for me I have a colleague named Samuel Block and he just finished up writing a report called The ESG of Metals for The Clean Energy Transition. So I called him up and what I wanted to first know from him was in his

words, what's a version of a mine that would be seen as more sustainable than another that has less ESG challenges than your typical mining operation?

Sam Block:

It really depends. The first thing I would look for is, is it not operating in an area that in and of itself is creating human rights problems because it's tearing up the land that's culturally important to someone or is it operating in or adjacent to a world heritage site? I wouldn't want them to create permanent destruction and loss of these very high value places.

Sam Block:

And then also I would want to see if they are operating in a challenging environment like the DRC, what is it doing to create a more sustainable future for the people? The idea of a sustainable mine is a bit of an oxymoron because you're essentially just going to extract every valuable thing out of the ground and when it's gone, it's gone.

Sam Block:

So in itself, they can't say it's sustainable but you can and create a sustainable community or local economy so that, that economy and all that money that comes into an area can be sustainable and live without the mine in the future.

Mike Disabato:

That sort of community relations effort often relies on the idea of shared value initiatives. There are communities that had pillars of shared value like empowerment, education, health, local production and transparency. And these are the companies that often employ local community members and have appropriate systems set up for those community members to log their grievances.

Mike Disabato:

But then there are companies that don't. And the effects of that are often seen in human rights controversies that the companies get embroiled in such as toxic mining waste spilling into a community's water source or forced evictions to make way for a mine. And often it's the type of metal that a company is mining for that can correlate with the human rights abuses.

Mike Disabato:

Well, unfortunately for cobalt and the Congolese people, Congo being where about two thirds of cobalt production currently is. According to Sam's research and our data around 41% of the cobalt production in our coverage universe comes from companies with ongoing human rights controversies. Copper has about 13% of its production associated with human rights controversies, lithium 9% and nickel around 5%.

Mike Disabato:

So if you're either an investor or a former NBA player looking to get rich off of cobalt production, you may want to make sure your mine has appropriate community relation programs set up. But let's say you don't have the stomach for human rights abuses and you decide to shift to nickel mining. The

thing you want to look out for with nickel, which is often used as an alternative to cobalt in high performance batteries is its environmental challenges.

Sam Block:

Yeah, one of the leading sources of nickel is a nickel that's a sulfite ore which creates a lot of risk of sulfur oxide emissions. And then also acid mine drainage and obviously creates a lot of damage to the ecosystems. If you have a lot of acid rain and acid mine drainage. And so it's a big issue and yeah, definitely the world's largest nickel producer is a Nornickel, which is in Russia and they are also the world's largest SOx emitter. And-

Mike Disabato:

Wait a minute, let me just define something right here. SOx is Sulfur Oxides and they react with other compounds in the atmosphere to form small particles and these particles contribute to particulate matter pollution. Small particles may even penetrate deeply into the lungs and in sufficient quantity can contribute to health problems. Okay, back to Sam.

Sam Block:

Yeah, recently I was looking at this and I realized that they're SOx emissions from 2020, I think it was 1.9 million tons of SOx that they emitted, was pretty equivalent to the average SOx emissions from the second largest volcano in the world. Before humans existed volcanoes were definitely the largest source of SOx emissions. Now, generally it's going to come a lot from vehicles but in terms of a single producer of SOx emissions, Nornickel is definitely at the top of that.

Mike Disabato:

Nornickel, if you remember back in March of this year, paid a record two billion US dollar fine over a huge oil spill that released 21,000 tons of diesel into Arctic waters and was one of Russia's worst environmental disasters. But I don't want to just single out one company with an environmental disaster. There's South32's Cerro Matoso nickel mine in Colombia and Vale's Onca Puma mine in Brazil. Both have faced allegations of polluting rich biomes that adversely affected indigenous communities.

Mike Disabato:

And you can read more about those in Sam's upcoming paper. And again, I have to keep bringing this up because I'm mentioning all these environmental issues. Nickel is a big part of the battery ingredient list... Well, the current battery ingredient list. So what can mines do to ensure they aren't negating the benefits created by a low carbon energy source that they're helping supply?

Sam Block:

Well, in many cases there is technology available to mitigate these environmental risks. There is SOx abatement technology and many companies have installed it. Some companies that capture SOx emissions, they even can resell it as Sulfuric acid for other industrial applications. And so there is some benefit there even without a regulatory push. But obviously the equipment is expensive but it's definitely a possibility. Actually North Nickel has actually announced that they would start to install a lot of the better pollution prevention equipment.

Sam Block:

They actually committed around \$5.5 billion to do so and they've even started construction of some of the pollution prevention equipment. But it's going to take years before it gets built out. And they've also been saying that they're going to clean up their performance for 10 years.

Sam Block:

And so they need to mitigate those risks. One of the biggest environmental risks for mining companies would be a spill of some process chemical or tailings. So taking steps to reduce these risks are certainly important. Some mining companies have adopted this dry stacking of their tailings to reduce the risk of a spill but overall because of the many risks, companies need strong management and strong management systems to ensure that they prevent environmental accidents from happening and that they are addressing all the important areas and they have the right protocols and procedures in place to mitigate the risk.

Mike Disabato:

Okay. That's all well and good. But you might be thinking to yourself, how prevalent are these companies in the extractive resources sector? Yeah? Sam, what do you think? How prevalent are they?

Sam Block:

Well, I don't know. Probably all of them to a certain extent have something related to this. But obviously some are much better at it, more consistent at it than others. There's a lot of companies out there, very large mining companies that learned a lot of lessons the hard way. And so now they have very well established community relations, management systems and tools and guidance and same with environmental management, health and safety management. They have very well established systems that they can deploy rapidly for all operations globally and minimize any variance and performance, so.

Mike Disabato:

So indeed. And I started off this episode with a nod to the New York Times story that caught my attention out of the subject and it was more the idea that these smaller players are getting into this metals rush. Those without much mining experience like Mutombo, who may very well be great at running a mining company but as you can hear from Sam, there are all these aspects that need to be taken into account.

Mike Disabato:

And we, as a society, have to figure out what sort of trade offs we can handle as we transition our energy systems from fossil fuels to renewable energy. And it's a really tough question to answer. For example, I remember in one of the Democratic Primary debates that was happening in the US in 2019 or sometime thereabouts, then hopeful Presidential candidate, Elizabeth Warren, was asked what she thought about mining on public lands because she had pledged before the debate to sign an executive order to stop drilling on public lands on her first day in office.

Mike Disabato:

So the moderator asked about lithium and he said, "North Dakota has a lot of lithium, it has a lot of public land. How are you going to push for renewable energy without actually mining some of that

lithium?" And it was a rare, great question at a Presidential debate. And Warren gave the best answer she could and everyone moved on. Which was unfortunate because it seemed like one of the most important environmental questions of our day and it just got a little bit of air time. And since I view Sam in such a presidential esteem and since I am a moderator, I decided I would ask Sam what he thought about that question.

Sam Block:

There's a lot to that. One thing that we can certainly improve on is recycling. If I was in Elizabeth Warren's position and someone asked me that question, I'd be like, "Well, we want to invest more in recycling so that we aren't as dependent on mining." But the reality is even if we recycle everything there's not enough extracted metals of cobalt and nickel and some of these other metals that will fulfill all the demand that we're going to likely have to build out electric vehicles and renewable energy technology and so we will have to mine.

Sam Block:

Where do we mine though, is the question. And then the other question on technology is on the battery side, the type of batteries that are now dependent on things like cobalt and nickel might not be the main batteries in the future. And there's already a small but growing trend to shift to other battery types like these LFPs, the Lithium Iron Phosphate batteries that don't require any nickel or cobalt.

Sam Block:

And if in 10 years we're only going to be using LFPs or other type of batteries that don't require any nickel or cobalt, why would we spend the next 10 years now trying to develop very risky and highly impactful mining operations that are focused on cobalt or nickel?

Mike Disabato:

And now to the calmer waters of the pharmaceutical industry. In November of this year, Takeda Pharmaceuticals put out a massive sustainability link bond that had sustainable criteria tied to its proceeds. What's the sustainability bond, you ask? Well, it's a combination of a green bond, a bond whose proceeds are used for some sort of environmentally beneficial project and a social bond, a bond whose proceeds are used for some sort of socially beneficial project. A project that helps society rather.

Mike Disabato:

So you combine those two things and bam, you've got yourself a sustainability bond. Everyone is talking about the pharmaceutical industry right now so I wanted to get in on the game and talk about this bond. So I called on my colleague, Namita Nair, who wrote about it. And I asked her to give me her hot take on its issuance.

Namita Nair:

What's important to understand about this is that Teva is one of the largest generics manufacturers in the world and the sheer amount of that bond, it's a 5 billion USD bond. And that's something we haven't really seen in the pharmaceutical industry. So there have been other innovative companies that have put out sustainability linked bonds. Novartis, for example, put out a 1.85 billion Euro SLB and Pfizer also put out something of an equivalent amount.

Mike Disabato:

So what Teva's going to do is it's going to use the proceeds from this bond to do two things. First, to make its generic drugs more available to low and middle income markets. And when a generic drug hits a market, the price of that drug decreases accordingly. And the second is actually a first for a pharmaceutical sustainability link bond.

Mike Disabato:

Teva's going to use the proceeds to help reduce its greenhouse gas emissions. Now, to be honest, that's really interesting because it's a first but it's also sort of a meh because the pharmaceutical industry isn't a really large direct emission sector. So it's saying that, "We're going to lessen our emissions but that's not really going to change the global emissions that much." The more important KPI that this bond is linked to is the generic drug offering which in Teva's words will increase the access to healthcare for underserved populations.

Namita Nair:

So Teva is in a good position anyway because it has an excellent genetics portfolio. And by a function of its portfolio and the fact that it has a very global presence, it is well positioned to take advantage of opportunities to increase access. Now Teva's first KPI is specifically to increase access to its portfolio of medicines that are listed in the World Health Organization's essential medicines list.

Mike Disabato:

The medicines on the essential medicines list are the sort of drugs that the World Health Organization says every functioning healthcare system should have in appropriate dosage forms of assured quality and at prices individual and health systems can afford.

Mike Disabato:

These are the essential drugs that communities cannot do without and can sometimes be cost prohibitive for low to middle income countries. So there are these KPI indicators that Namita just talked about and for sustainability link bond to be a sustainability link bond, those KPIs need to be backed up with actual plans of action that are listed in the details of the bonds issuing documents.

Namita Nair:

If you go down to the brass tacks. So if you look at the sustainability performance targets that are set under this KPI, now that's where the money is. So the first one says that they're going to increase the number of new regulatory submissions in LMICs. And this is for the drugs that they have on the WHO EML. They're going to increase it by 150% by 2025.

Mike Disabato:

So regulatory submissions sounds technical but really it's just the company saying to the market that, "We are register our drug to be sold in your market. Please approve it. Do the tests you need to do and then we can offer it widely." The more regulatory submissions for a generic drug manufacturer, the more that market has a cheap alternative to a possibly life saving medicine.

Namita Nair:

That's one of them. And the second part of that is... Now this is something more tangible. Here they say that they're going to increase the product volume through therefore access to medicines programs and that's going to be done through a variety of mechanisms. Now, they want to increase the medicines program product volume by 150%.

Namita Nair:

Basically they already have certain programs that are running. So they have some social business programs, they have some donation programs and through those programs, they would like to increase the number of doses of their products that are going to recipients in LMICs.

Namita Nair:

That's what they mean to say. They also plan to launch new access programs by 2025 and all this is still measured in the number of doses that the company's going to give out. So it doesn't really talk about an increase in the number of recipients or increase in the number of patients which was something that Nova tested which was again unique but also had a very tangible number attached to the number of people who were going to get a benefit out of their products.

Mike Disabato:

This sort of movement to make healthcare more accessible is even more important in a post or current COVID world because as we were seeing with the COVID mutations, if there is not enough available medicines for treatable diseases, those diseases are at risk of mutating and becoming a global problem.

Mike Disabato:

And also these sort of agendas to try to make healthcare more accessible to low and middle income countries may build up some trust in the pharmaceutical industry which has not done itself any favors in the past and also seems to really be lacking in the moment in areas that it shouldn't be.

Mike Disabato:

And that's it for the week. I wanted to thank Sam and Namita for talking to me about the news with the ESG twist. And I wanted to thank you, of course, for listening. I really appreciate it. Don't forget to rate and review us. That pushes us up on lists and makes it so my parents enjoy that I have a podcast. And if you like what you heard don't forget to subscribe because then you can hear me every week. And that's good for everyone except for me. Thanks again and talk to you next week.

Speaker 4:

The MSCI ESG Research Podcast is provided by MSCI Inc Subsidiary, MSCI ESG Research LLC, a registered Investment Advisor and the Investment Advisors Act of 1940. And this recording and data mentioned herein has not been submitted to nor received approval from the United States Securities and Exchange Commission or any other regulatory body.

Speaker 4:

The analysis discussed should not be taken as an indication or guarantee of any future performance analysis forecast or prediction. Information contained in this recording is not for reproduction in whole or in part without prior written permission from MSCI ESG Research. None of the discussion or analysis put forth on this recording constitutes an offer to buy or sell or promotional recommendation of any security, financial instrument or product or trading strategy.

Speaker 4:

Further, none of the information is intended to constitute investment advice or recommendation to make or refrain making any investment decision and may not be relied on as such. The information provided here is as is, and use of the information assumes the entire risk of any use it may make or permit to be made of the information. Thank you.

About MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process. To learn more, please visit www.msci.com.

This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be modified, reverse-engineered, reproduced or disseminated in whole or in part without prior written permission from MSCI.

The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information may not be used to create indexes, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not be applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or willful default of itself, its servants, agents or sub-contractors.

Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

The Information should not be relied on and is not a substitute for the skill, judgment and experience of the user, its management, employees, advisors and/or clients when making investment and other business decisions. All Information is impersonal and not tailored to the needs of any person, entity or group of persons.

None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

It is not possible to invest directly in an index. Exposure to an asset class or trading strategy or other category represented by an index is only available through third party investable instruments (if any) based on that index. MSCI does not issue, sponsor, endorse, market, offer, review or otherwise express any opinion regarding any fund, ETF, derivative or other security, investment, financial product or trading strategy that is based on, linked to or seeks to provide an investment return related to the performance of any MSCI index (collectively, "Index Linked Investments"). MSCI makes no assurance that any Index Linked Investments will accurately track index performance or provide positive investment returns. MSCI Inc. is not an investment adviser or fiduciary and MSCI makes no representation regarding the advisability of investing in any Index Linked Investments.

Index returns do not represent the results of actual trading of investible assets/securities. MSCI maintains and calculates indexes, but does not manage actual assets. Index returns do not reflect payment of any sales charges or fees an investor may pay to purchase the securities underlying the index or Index Linked Investments. The imposition of these fees and charges would cause the performance of an Index Linked Investment to be different than the MSCI index performance.

The Information may contain back tested data. Back-tested performance is not actual performance, but is hypothetical. There are frequently material differences between back tested performance results and actual results subsequently achieved by any investment strategy.

Constituents of MSCI equity indexes are listed companies, which are included in or excluded from the indexes according to the application of the relevant index methodologies. Accordingly, constituents in MSCI equity indexes may include MSCI Inc., clients of MSCI or suppliers to MSCI. Inclusion of a security within an MSCI index is not a recommendation by MSCI to buy, sell, or hold such security, nor is it considered to be investment advice.

Data and information produced by various affiliates of MSCI Inc., including MSCI ESG Research LLC and Barra LLC, may be used in calculating certain MSCI indexes. More information can be found in the relevant index methodologies on www.msci.com.

MSCI receives compensation in connection with licensing its indexes to third parties. MSCI Inc.'s revenue includes fees based on assets in Index Linked Investments. Information can be found in MSCI Inc.'s company filings on the Investor Relations section of www.msci.com.

MSCI ESG Research LLC is a Registered Investment Adviser under the Investment Advisers Act of 1940 and a subsidiary of MSCI Inc. Except with respect to any applicable products or services from MSCI ESG Research, neither MSCI nor any of its products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and MSCI's products or services are not intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Issuers mentioned or included in any MSCI ESG Research materials may include MSCI Inc., clients of MSCI or suppliers to MSCI, and may also purchase research or other products or services from MSCI ESG Research. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indexes or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, IPD and other MSCI brands and product names are the trademarks, service marks, or registered trademarks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

MIFID2/MIFIR notice: MSCI ESG Research LLC does not distribute or act as an intermediary for financial instruments or structured deposits, nor does it deal on its own account, provide execution services for others or manage client accounts. No MSCI ESG Research product or service supports, promotes or is intended to support or promote any such activity. MSCI ESG Research is an independent provider of ESG data, reports and ratings based on published methodologies and available to clients on a subscription basis. We do not provide custom or one off ratings or recommendations of securities or other financial instruments upon request.

Privacy notice: For information about how MSCI ESG Research LLC collects and uses personal data concerning officers and directors, please refer to our Privacy Notice at <https://www.msci.com/privacy-pledge>.