

**FROM COBALT TO CARS:
HOW CHINA EXPLOITS
CHILD AND FORCED LABOR IN DR CONGO**

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**FROM COBALT TO CARS: HOW CHINA
EXPLOITS CHILD AND FORCED LABOR
IN DR CONGO**

TUESDAY, NOVEMBER 14, 2023

CONGRESSIONAL-EXECUTIVE
COMMISSION ON CHINA,
Washington, DC.

The hearing was held from 10:01 a.m. to 12:20 p.m., in Room 2360, Rayburn House Office Building, Representative Chris Smith, Chair, Congressional-Executive Commission on China, presiding.

Also present: Senator Jeff Merkley, Co-chair, and Representatives Zinke, Steel, Salinas, and Nunn.

**STATEMENT OF HON. CHRIS SMITH, A REPRESENTATIVE
FROM NEW JERSEY; CHAIR, CONGRESSIONAL-EXECUTIVE
COMMISSION ON CHINA**

Chair SMITH. Good morning. Today's hearing, "From Cobalt to Cars: How China Exploits Child and Forced Labor in DR Congo," will come to order.

The Commission knows all too well about the Chinese government's egregious human rights abuse, blatant disregard for international law, and its ever-expanding authoritarian influence beyond its borders. This influence is pervasive, felt in boardrooms and C-suites, in supply chains, and on assembly lines, in classrooms and textbooks, in cities in our very own country, and, indeed, other countries as well. Today's hearing will highlight China's malign influence in Africa, specifically in the cobalt mining industry in the Democratic Republic of Congo. China's repressive long arm is ubiquitous in the DRC. Located in central Africa, the DRC is massive and blessed with natural resources, including metals and minerals, and of course its greatest asset is its people, who are being exploited today by the Chinese Communist Party.

It is a country that has been brutally pillaged throughout history, fueled by corrupt men's unquenchable thirst for power, riches, land, rubber, copper, palm oil, and now cobalt, all at the expense of innocent women, men, and children. The DRC is home to more than 70 percent of the world's cobalt, an essential metal for lithium-ion batteries, powering our smartphones, computers, and electric vehicles, lest we forget our own complicity, however unwitting, through our use of cobalt in our everyday lives.

Siddharth Kara's book, "Cobalt Red"—and I recommend that everyone on this Commission and people who are concerned about these issues read this book—"Cobalt Red: How the Blood of the

Congo Powers Our Lives,” vividly describes the tragic realities of this industry that has all too willingly turned a blind eye to human dignity. There is no such thing as a clean supply chain of cobalt from Congo, says Kara. Kara writes in his book, “Stakeholders have formulated international coalitions to help ensure that their supply chains are clean. The two leading coalitions are the Responsible Minerals Initiative and the Global Battery Alliance, the GBA. The GBA,” he goes on, “has developed a Cobalt Action Partnership to immediately and urgently eliminate child and forced labor from the cobalt value chain.” Kara, however, goes on to write, “in all of my time in the Congo I never saw or heard of any activities linked to either of these coalitions.”

To this day, child and forced Congolese laborers toil in hazardous conditions to extract cobalt from unsafe mines, including artisanal mines, in the DRC. Hastily dug, artisanal mines are always subject to collapsing, and many have indeed collapsed, crushing, amputating limbs, and killing miners, including children. It is impossible to escape the disastrous environmental impact of cobalt mining in these communities, as the very air they breathe and the water they drink are contaminated by toxic chemicals, dirt, and sediment.

The biggest beneficiaries of this cobalt continue to remain silent and refuse to face this uncomfortable truth. From dirt to battery, from cobalt to cars, the entire system is fueled by violence, cruelty, and corruption. “Therein lies the greatest tragedy of the Congo’s mining provinces,” says Kara. “No one up the chain considers themselves responsible for the artisanal miners, even though they all profit from them.” China has gained almost full dominance of every single step of the cobalt supply chain. Money talks and human rights go right out the window. Corrupt government officials in the DRC sign billion dollar deals with China and pocket the money for themselves. Major companies, both Chinese and Western, close their eyes.

Over a year ago, on July 22nd, 2022, I chaired a hearing of the Tom Lantos Human Rights Commission entitled “Child Labor and Human Rights Violations in the Mining Industry of the Democratic Republic of Congo.” And thank you, Ambassador Schultz, because you were one of our very distinguished witnesses. One of our expert witnesses at that hearing at the time, Hervé Kyungu, testified—and I quote him in part, “Child labor is one of the worst forms of abuse. It is forbidden by both Congolese legislation as well as international rules and norms.” “In the mining industry in my country,” he went on, “the Democratic Republic of Congo, children are often exposed to radioactive minerals, injuries, deadly and painful diseases.”

“For example,” he goes on, “with respect to the extraction of cobalt in artisanal mines, within the Lualaba province children are routinely used as part of the workforce. They are unremunerated and exploited, and the work is often fatal, as these children are required to crawl into small holes dug in the earth to recover sacks of ore containing rich grades of heterogenite, which is almost 60 percent cobalt. These children are not going to school. Their health is exposed as they are living in precarious conditions.”

Another witness at our hearing, also from the DRC, Father Bihuzo, a Jesuit, he’s the regional coordinator of the Ecclesial Net-

work on the Congo Basin Forest and head of the research department of the Jesuit Center for Study and Social Action. He pointed out that their “report noted that artisanal miners are not provided with any protective equipment. They work seven days a week and more than 12 hours a day. In reality, their working hours are not defined and include weekends and holidays. They are exposed to radiation from the products they use and to the danger of the explosives they use.”

The United States has been, at best, asleep at the wheel or, worse, complicit in enabling for too long, and China has taken advantage of that. We need to provide alternative options, options that champion transparency, human rights, peace, and prosperity for all. This week I will be introducing legislation to ensure that goods made using or containing cobalt refined in the PRC do not enter the United States market, under the presumption that it is extracted or processed with the use of child and forced labor in the Democratic Republic of Congo.

Among its provisions, the bill—called the COBALT Supply Chain Act, will, as did the Uyghur Forced Labor Act, require that the customs commissioner apply this presumption—it’s a rebuttable one—but that he apply this presumption, unless the commissioner determines that the importer of record of the covered goods being imported has (1), demonstrated by clear and convincing evidence that the covered goods were not made or manufactured in the PRC using or containing cobalt, or (2), has demonstrated by clear and convincing evidence that the covered goods from the PRC contain no trace of cobalt extracted or processed in the DRC.

The Convention on the Rights of the Child, as many of us know, recognizes “the right of the child to be protected from economic exploitation and from performing any work that is likely hazardous.” By ignoring these rights and by treating people, including children, as expendable, China is committing gross violations of human rights and is seeking to rewrite the international order, all while controlling the supply chains of this critical metal, cobalt.

I’d now like to yield to the Co-chair, our distinguished member from the Senate—it was great to be over in the Senate with you today, Senator Merkley.

STATEMENT OF HON. JEFF MERKLEY, A U.S. SENATOR FROM OREGON; CO-CHAIR, CONGRESSIONAL-EXECUTIVE COMMISSION ON CHINA

Co-chair MERKLEY. Thank you, Mr. Chairman. Indeed, I was confused about the location. I was halfway to the House before I recognized that you were coming across. So welcome. Thank you for your passionate concern about this very real problem.

Thank you for convening this hearing. It builds on several hearings that this Commission has held on the issue of forced labor and other abuse, including child labor and supply chains dominated by Chinese companies, and the importance of holding them accountable when they are complicit in human rights violations. This Commission regularly spotlights the repression of the Chinese government, whether within their own borders—such as Xinjiang or in Hong Kong—or through efforts to reach across borders to other countries, including right here in the United States. Today, we’ll

hear about how these two forms of repression are entwined in the cobalt supply chain, originating in the Democratic Republic of Congo.

Cobalt is a critical component in lithium ion batteries, which are used in everything from our cellphones to our electric cars, as well as industrial and defense applications. Almost half the world's known reserves of cobalt, about 3.4 million metric tons, are in southern DRC, and the country accounts for roughly 70 percent of global production. A whopping 80 percent of DRC's cobalt output is owned by Chinese companies. It's refined in China. It's then sold to companies outside of China—to the United States, Europe, and elsewhere for use in batteries and other equipment. So-called artisanal cobalt mines remain largely unregulated, operating alongside larger industrial operations.

Artisanal miners often include women and children who work for the equivalent of a dollar or two a day, carrying heavy loads out of dangerous mines, children as young as 3 learning to sift through the stones to wash and sort ore. The U.S. Department of Labor estimates that at least 25,000 children are working in cobalt mines in the DRC, and they do it, as the Chairman pointed out, without basic protective equipment, gloves, and face masks. A study in *The Lancet* found that women living in areas close to cobalt mines had, "metal concentrations that are among the highest ever reported for pregnant women," with heavy metals linked to stillbirths and birth defects.

Cobalt mining also causes enormous environmental degradation from large-scale open pit mines or ordinary people tearing up the ground looking for cobalt, following the veins wherever they lead. DRC isn't just a top producer of cobalt. It's also a top producer of other minerals that are vital components in batteries and other advanced technologies, like copper and rare earth metals. Facilitated by widespread corruption in the DRC's mining sector, Chinese companies and the Chinese government directly profit from forced and child labor used to mine these minerals, extending their abusive practices across the continents. They supply American companies that produce products that all of us use every day.

American consumers deserve to be protected from becoming unwitting and unwilling accomplices in this abuse. All of these issues have enormous implications for our supply chains at every step, as we seek to accelerate the transition to a clean, sustainable energy future. American companies and those in like-minded countries have leverage over these tainted supply chains, which they can and must exert to improve transparency and implement responsible sourcing. Both the executive branch and Congress have important roles to play to reduce and eliminate labor and other human rights abuse in DRC mining operations.

Addressing these issues is an opportunity for the United States to lead the world both in clean, sustainable energy and in human rights. I look forward to learning from our experts who are here today. Thank you for joining us and sharing your knowledge, and thank you, Mr. Chairman.

Chair SMITH. Thank you, Senator.

On the line, we're joined by Commissioner Michelle Steel, and Congresswoman Salinas is also on the line. So, Michelle, I yield to you for any opening comments you might have.

**STATEMENT OF HON. MICHELLE STEEL,
A U.S. REPRESENTATIVE FROM CALIFORNIA**

Representative STEEL. Thank you, Chairman Smith, for hosting this important meeting. I want to say thank you to the witnesses for joining today and for sharing their key insights on how China exploits child and forced labor in DR Congo. I'm deeply concerned with child and forced labor tainting the supply chain of cobalt and other rare earth minerals. I have raised these concerns at other hearings and believe the United States must work with trusted allies on this issue. Many have turned a blind eye to these human and child labor abuses. I hope we all share the concern that the U.S. and Europe are reliant on the CCP for critical minerals, as our government mandates EV cars in the 2030s.

I'm highly concerned that this administration isn't doing enough to counter CCP influence. There are also possible environmental concerns that will occur due to increased mining in the region. The CCP only cares about the bottom line. If everyone needs to be driving new electric vehicles by 2030, as demanded by Governor Newsom in California, we need to allow for safe and clean mining within the United States. We must work together to end very harmful and severe consequences of supporting a cobalt supply chain tainted with child labor, slave labor. Thank you, Mr. Chairman, for this timely hearing.

Chair SMITH. Thank you very much, Commissioner Steel.
Congresswoman Salinas.

**STATEMENT OF HON. ANDREA SALINAS,
A U.S. REPRESENTATIVE FROM OREGON**

Representative SALINAS. Thank you so much, Chair Smith and Senator Merkley, for holding this very important hearing. Thank you to our esteemed witnesses for taking the time to be with us here today and sharing your thoughts and potential solutions to this issue. As we know, the conditions in the cobalt and lithium mines in the DRC threaten the dignity, rights, and safety of the workers who labor every day to meet the global demand for these valuable minerals and threaten to undermine the innovation and development of U.S. companies and products.

This problem is of particular interest to me, because just north of my district, Intel employs over 20,000 Oregonians, several thousand in my district. They use cobalt to create their microchips and semiconductors. Intel has developed internal processes to assess and audit their global supply chain to be a responsible actor in this space, but as we roll out new programs under the CHIPS and Science Act, the bipartisan infrastructure bill, and the Inflation Reduction Act, it is imperative that we ensure that the global supply chain is not tainted with materials produced with inhumane or forced labor.

I am really looking forward to hearing more from our witnesses and my colleagues about how we can continue to innovate and electrify here, while also maintaining fair and humane labor practices

in the global supply chain. Thank you so much for holding this hearing today.

Chair SMITH. Thank you so very much.

Now let me introduce our very distinguished panel, and we are grateful to have Ambassador Eric Schultz join us again. He is a friend who has previously testified before the Lantos Human Rights Commission, but this is his first time appearing before the China Commission. Thank you, Ambassador.

Ambassador Schultz is a former senior American diplomat with decades of experience in the Commonwealth of Independent States and in southern African countries. He has worked extensively with Ukraine, Russia, Turkmenistan, Georgia, and has experience in emerging markets around the world. Ambassador Schultz served as U.S. Ambassador to Zambia. He was Deputy U.S. Ambassador to Ukraine, Minister-Counselor for Economic Affairs at the U.S. Embassy in Moscow, and also a deputy U.S. ambassador in Zimbabwe. Prior to these assignments, he has worked in Georgia, Madagascar, and so many other places throughout the world. Ambassador Schultz graduated from Macalester College in St. Paul, Minnesota and holds an M.A. degree in international studies from Denver University. He speaks English, French, Ukrainian, and Russian. Hopefully English will be his preferred language today. [Laughter.] I'd like to thank Ambassador Schultz for his extensive service to our country and, again, for being here to give us his insights.

Our next witness will be Milos Ivkovic, a law professor at Washington University in St. Louis, who teaches Introduction to Human Rights and International Criminal Law. He also served as an international arbitrator and human rights advocate over the course of the last decade. He has been raising awareness about the deteriorating state of democracies worldwide, including the ongoing illicit weaponization of trade and supply chains to target and disempower free societies. He is recognized for his extraordinary efforts and actions to eradicate the worst forms of child slavery, human rights abuse, torture, and human trafficking in Africa and throughout the world. Professor Ivkovic was also involved in the release of journalists wrongfully imprisoned in Africa and serves on the board of the Inter-Parliamentary Task Force on Human Trafficking. Professor, again, we appreciate the work you do on all of these issues. I work so much on the trafficking issue. I greatly respect your work on that.

Then we'll be joined by Joseph Mulala Nguramo, a non-resident fellow at the Atlantic Council, both for the Freedom and Prosperity Center and the Scowcroft Center for Strategy and Security. He was born and spent his formative years in the DRC. He was also the first and thus far the only Congolese graduate of the United States Military Academy at West Point, where he majored in defense and strategic studies. He holds a master's degree in global theory and history from the School of Advanced International Studies at Johns Hopkins University, where he's also been co-teaching a course on modern supply chain diplomacy.

Additionally, Joseph has worked as a research assistant at the Brookings Institution, where he focuses on education, as well as the Taubman Center for State and Local Government within Harvard University's Kennedy School of Government, where he focused

on African public policy. Joseph also worked at the International Economic Alliance, where he led the student internship program and organized meetings between governments and private sector participants to promote trade, economic growth, and development. Currently at the Atlantic Council, he focuses on advancing democracy, quality governance and the rule of law, and the implications of the return of great-power competition and how it is shaping the new world in the 21st century. We're grateful to have you here and thank you for being here.

Finally, we'll hear from Stavros Niarchos, also known as Nick, who is a journalist based in New York. His work focuses on minerals, migration, and conflicts. He is a regular contributor to the New Yorker magazine, which has published his work on cobalt and the DRC. His work from Ukraine won a 2023 Edward R. Murrow Award from the Radio Television Digital News Association. In addition to the DRC, Nick has written stories from Ukraine, Indonesia, Yemen, Burkina Faso, Niger, Morocco, Western Sahara, Djibouti, Iran, Uzbekistan, Bhutan, and, of course, Greece. He is currently writing a book for Penguin Books about the battery metal supply that includes reporting from the United States, Europe, and Africa. He holds an M.S. from Columbia School of Journalism and a B.A. from Yale University.

On a personal note, I'm very grateful to have Nick here with us today, as he had a precarious time while in the DRC just last year. Because of his work reporting on alleged ties between mining groups and separatists in the DRC, he and fellow journalists were detained by Congolese officials in July of 2022. My staff and I advocated for Nick's release, and we were greatly relieved to hear that he was released six days later from his harrowing ordeal. You might want to share a little bit on that, but above all, what we're here to talk about, obviously, is cobalt. But I want to thank him for his speaking truth to power and doing it when there's such a great cost to him personally.

Ambassador Schultz, the floor is yours.

**STATEMENT OF HON. ERIC SCHULTZ,
FORMER U.S. AMBASSADOR TO ZAMBIA**

Ambassador SCHULTZ. Mr. Chairman, Mr. Co-Chairman, it's an honor and a privilege to be here today. As Chairman Smith mentioned, about a year ago I spoke in front of the Tom Lantos Human Rights Commission on a very similar topic. My presentation then characterized our relationships with China and Russia as adversarial ones, tantamount to conflict. Moreover, I argued it was a conflict we were losing, and had in fact been losing for many years. U.S. policy toward Africa through administrations of both parties has been characterized too often by neglect, I would argue. We have taken an interest in Africa episodically, usually prompted by a crisis of some sort. And that interest often wanes as soon as the crisis begins to ebb, and it moves on.

The result is that we left Africa for others, especially China and Russia. They have expanded their economic and political influence on the continent for decades, I would argue, at our expense. Moreover, it would have been a struggle regardless. They had advantages that we lacked. China and Russia were on the right side of

Africa's liberation struggles. Although that was two generations ago, it still matters to Africans. It always will matter. It is an obstacle that we need to overcome. Also, their governments subsidize and support their commercial ventures in a way that we do not.

And they don't play fair. They abet corruption and they ignore violations of civil, political, and human rights—as this hearing today focuses on. As many others have argued, the world is at an inflection point of sorts right now, riven by rivalry and by violence. China and Russia pose a systemic threat. They are allied against us, and they mean to change the world order that we helped build. Africa is one of the key battlegrounds in this conflict. To win in Africa, there are several things that we should and must do.

To start with, we need to acknowledge that it is a conflict. To win in Africa—sorry. It is no longer acceptable to say that Chinese investment is simply filling in where the West was too timid or too biased to venture. The old adage of one man, one vote, one time also applies to China and Africa, to its investment. One investment, one country, for all time. The Chinese mean to freeze us out of African resources as best they can, and they have spent hundreds of billions of dollars in this effort. Africa's resources are essential to next-generation economic growth, especially copper, rare earths, and cobalt.

The Belt and Road Initiative, at least in Africa, is a transparent effort to gain the upper hand and assert dominion in Africa on the part of the Chinese. There are a few African countries that have not taken money and that are not in China's debt. Russia's role is smaller, but I would argue no less malign. Whether or not Wagner still exists is beside the point. Russian mercenaries and Russian arms merchants are ubiquitous in Africa. Nor should it be acceptable to be on our opponents' payrolls. Neither China nor Russia has real private companies. Working for a Chinese or a Russian company means working for their governments.

We are not immune in the U.S. from what they call the Schroederization of Europe's elite. Many American businessmen, consultants, retired government officials, and the like, have taken Chinese and Russian money and have aided their efforts. We also need to change the way our government and businesses work together abroad, especially in Africa. We are a private sector economy and are stronger for it, but in many places in Africa, the investment risk is high enough that government support needs to be overt to convince American companies to invest. The argument that we can't pick winners among American companies should no longer be an excuse for inaction.

Supporting American companies should be one of the, if not the principal, tasks of American foreign policy. The Development Finance Corporation is a good start to making that support more tangible, but it needs to be more active, to have fewer constraints on what it can support, and, above all, it needs to have more money. Its job should be to expand the reach and influence of the American government by expanding the reach and influence of American commerce. It should not make the perfect the enemy of the good.

The U.S. Government itself should be cautious about imposing its views on Africans. Supporting democracy and human rights has to be the center of U.S. foreign policy, but not at the expense of

friendships, because friendship is the key to winning in Africa and, for that matter, everywhere else. Less finger-wagging, more listening. More recognition of the way the world is and less dreaming about the way we want it to be. The U.S. is and always has been a better friend and a better ally than our rivals. At the end of the day, that is how we win. When an Indian company, for instance, has its mine expropriated in Africa, our response should not be to ignore the situation or to blame the victim. It should be to help the company of a friendly country.

When African countries find themselves in trouble, deep in debt, often as not the result of the corruption of previous regimes, we need to be more active in helping. Chinese debt is still rising in Africa, even if investment itself is tailing off. The problem now and for decades to come is the vast sums owed and the interest rates that cause those sums to compound and continue rising, with no real prospect that the debts can ever be repaid. And China doesn't forgive. The IMF is a useful institution, but using it to help countries meet their debt payments to Africa seems counterproductive. Wouldn't it be better to help African countries organize to negotiate as a group to press China for better terms, including especially the forgiveness of some loans, at least of those that can demonstrably be shown to be odious and the consequence of corruption?

The Global South, including especially Africa, is rising in importance, its clout growing in a polarized world. A New York Times headline the other day said it all: by 2050, one in four people will be African. And their economies are also among the fastest growing. Africa's friendship matters. PEPFAR was a great initiative 20 years ago. It saved millions of African lives. However, Africans tend to take it for granted now and are more interested—or more impressed—by China's infrastructure projects, however poorly built and misconceived. We can do better. We should do better.

My favorite proverb—Chinese ironically but taught to me by Africans, says that the best time to plant a tree was 20 years ago. The second-best time is today. So today is a good time to start fighting for Africa. Thank you.

Chair SMITH. Thank you very much, Mr. Ambassador.

I would now like to recognize Mr. Ivkovic.

STATEMENT OF MILOS IVKOVIC, INTERNATIONAL ARBITRATOR AND ADJUNCT PROFESSOR, WASHINGTON UNIVERSITY SCHOOL OF LAW

Mr. IVKOVIC. Thank you, Chairman. Congressman Smith, Senator Merkley, honorable members of the Commission, thank you for the invitation to appear before you today. The story of cobalt is an unfortunate example of *de facto* informed silence and continued inaction in response to the worst devastation of basic human rights of the most vulnerable. It has been 14 years since the Department of Labor added cobalt mine in the DRC to its list of commodities produced by child or forced labor. Since then, it is estimated that anywhere between 35,000 and 40,000 children, some as young as 6 to 9, have been continuously involved in adverse mining operations in the DRC. In addition to life threatening hazardous conditions, children are subjected to inhumane working hours of up to

24 hours each day, exposure to potentially toxic materials, physical abuse, and sexual exploitation.

And yet, instead of receiving protection over the years, the DRC national army itself was recently declared, and I quote, “complicit in the worst forms of child labor.” At the same time, forced mining expanded to include other minerals in DR Congo. Transparency International’s Corruption Perception Index of 2022 ranked the DRC among the 15 most corrupt nations worldwide, with significant reports connecting corruption to the country’s mining sector. Unfortunately, these truly horrific practices are unlikely to change until and unless incentives and impunity for wrongdoing are removed. Recognizing that the assumption of a simple solution does not do justice to the actual complexity of the matter, the remainder of my testimony will seek to address the various underlying causes of the crisis at hand, coupled with the powers available to the United States to counteract, in line with its current policies.

The upstream segment of the cobalt supply chain generally includes mining, mineral trading, and subsequent processing in smelters and refineries. There are two distinct sets of considerations which can be observed “on the ground” in the DRC. On the one hand, absolute poverty affects 16 million Congolese who will have to live on less than \$2.15 a day. In addition, 33 million Congolese have limited to no access to drinking water, and 43 percent of children up to the age of 5 across the country suffer from malnutrition. Free education remains largely unavailable. It is rather impossible to speak of free will in such a state of effective survival.

Hence, the families become a target for exploitation, or worse. Children who end up working in cobalt mines are paid as little as one to two dollars a day. They may additionally be subjected to extortion by local law enforcement and security guards. To put it in simple terms, the only source of income for these people is participation in the cycle of abuse. The other side of the same coin, of the same upstream coin, is the demand. Over 70 percent of the world supply of cobalt comes from the DRC. Between 20 and 30 percent of those quantities may be traced back to the mines powered by child labor.

Traders purchase cobalt and then sell it on to processing plants—meaning that it is often inevitable that illegally obtained cobalt will be mixed into the mass of exported minerals. In 2020, Chinese companies imported nearly 90 percent of their cobalt needs from the DRC. It is publicly known that at least 8 out of 14 of the largest cobalt mines in the DRC are controlled by Chinese companies, but the actual number is likely to be much higher. In addition, mainland China accounts for 80 percent of the world’s cobalt refining capacity.

The downstream segment of the cobalt supply chain generally includes manufacturing activities—the activities that we face in the United States—such as components, lithium ion batteries coming into EV vehicles. In 2020 alone, 41 percent of all batteries globally were imported from China. U.S. battery imports were even more significant, reaching 47 percent in the same year. I would like to underline this. These figures suggest an absolute monopoly on what has become one of the most critical supply chains, and may help explain why years of reporting on the link between the worst

forms of child labor and the cobalt supply chain have regularly fallen on deaf ears.

Since 2020, I have to say, manufacturing activity has been aggressively attracted to the United States. This is, indeed, a big step in the right direction. However, despite its obvious potential, it does not address the rest of the upstream issues, which necessarily remain tied to the DRC and abusive practices in its mining sector. From the corporate perspective, there have been public signals of willingness to act and remedy the situation. However, these promises of change may have fallen desperately short of expectations. In 2017, Amnesty International concluded that the majority of downstream companies had taken minimal to no action to improve their due diligence on the issue of child labor.

Just two years later, a report cited by OECD found, and I quote, “low levels of due diligence disclosure with none of 42 companies examined having described the steps taken to manage risk or summarize the risk mitigation strategies related to child labor.” The German government reaffirmed in 2022 that up to 30 percent of cobalt in the DRC will continue to come from mines powered by child labor, while in the same year, the Department of Labor announced minimal progress in efforts to eliminate the worst forms of child labor in DRC.

So what can be done? On one hand, corporate pressure is theoretically possible, and it requires a high degree of market dominance or importance, which can be then translated into pressure on upstream actors to aggressively address child labor in the cobalt supply chain. Nonetheless, the argument that, to date, Western companies themselves have the power or incentive to force Chinese-backed counterparts to comply with international standards is absurd. As noted above, Chinese companies control almost all the mines and refineries needed to produce batteries.

In addition, China is expected to remain the world’s largest EV market in the short term, with a market share of up to 45 percent. Finally, current projections suggest that the Chinese EV manufacturers will gain over 20 percent of global market share by 2030. Another commercial reality is that the current supply chain is simply affordable, and readjustment could well lead to higher costs and negatively affect the prices of final products. Therefore, in the absence of any underlying positive incentives, such as non-market interventions and direct governmental support, Western companies may have little motive to enter additional segments such as refining or mining themselves.

Secondly, notwithstanding positive actions, so long as crimes go unpunished and actors responsible for the worst forms of child labor enjoy effective immunity, it is difficult to expect rapid and meaningful change. Hence, a careful consideration of tangible consequences has to take place. The first one has been mentioned by the Chairman, and this is, potentially, a temporary suspension of international trade or import of cobalt-related products into the United States. The positive effects of such an act are that the U.S., by virtue of its market position, can exert far more dominant pressure than commercial actors themselves independently, and thus influence the triggering of remedial market practices.

It should be noted, however, that an absolute ban on imports may have negative short-term effects on the U.S. market, an issue that can be resolved, as drafted in the Countering China's Exploitation of Strategic Metals and Minerals and Child and Forced Labor in the DRC Act, through licensing and due diligence requirements. The second, in observing the sheer scale of uninterrupted violations of fundamental human rights for more than a decade and the potentially lethal nature of the worst forms of child labor in the DRC, are the sanctions on states, companies, and individuals involved in these practices.

The third one is criminal investigations. Let it be clear that not only I but many of my colleagues believe that child labor in hazardous conditions constitutes a violation of peremptory norms of international law and has to be criminally prosecuted. Secondly, inhumane acts intentionally causing great suffering or serious injury to the body or to mental health, if widespread or systematic and directed against a civilian population, are crimes against humanity. So we arguably have a legal obligation to act.

Finally, the local Congolese population should be given alternatives to forced mining. Let there be no doubt, artisanal mining cannot be made safer or more humane. As somebody who has personally seen the suffering, as a father whose young children born in the DRC could have ended up in the same cycle of abuse, and as a true believer in the rule of law, I ask you to consider a series of actions that can put an end to the worst forms of child labor in the DRC. I also take a moment to note that the U.S. Congress and the U.S. administration are truly the last human hope for all of these millions of people.

Thank you very much for your attention.

Chair SMITH. Mr. Ivkovic, thank you so much for that testimony and those recommendations.

I'd now like to recognize Joseph Nguramo.

STATEMENT OF JOSEPH MULALA NGURAMO, NON-RESIDENT FELLOW, ATLANTIC COUNCIL'S FREEDOM AND PROSPERITY CENTER AND SCOWCROFT CENTER FOR STRATEGY AND SECURITY

Mr. NGURAMO. Thank you, Chairman Smith, and the whole Commission. I am truly honored and humbled to be given this opportunity to share with you my understanding of the urgent issue affecting my home country, the DRC. As a member of the African diaspora and working with the Atlantic Council on the future of U.S. and China-Africa relations in this new era of global-power competition, I follow this issue closely.

The working conditions of women and children in the Congolese mines constitute a humanitarian tragedy. They are dehumanizing, degrading, and they represent more than debt slavery and even worse. African children are exploited like slaves to serve a global market for new and cleaner energy. Children under 10 years old are forced to carry bags of sand weighing up to 60 kilograms. These bags are then shipped to China for refining to extract cobalt and copper, critical minerals that enable the global energy transition from fossil fuel to clean energy. Over 40,000 children are reported to work in these mines, mostly without pay. Typically, less than

\$10 a day. By the way, Mr. Ivkovic mentioned this in his speech. They pick up rocks with bare hands and without shoes. They have no adequate protective gear. They are exposed to contamination. And they have no medical insurance.

They work in tunnels, which often collapse, and then die under the rubble. Stories of people beaten up in these mines because they were claiming their rights are not acceptable. Besides the unacceptable humanitarian cost, there is as well environmental degradation affecting the health of the population leaving these facilities. Credible scientific reports have shown that the exposure to toxic chemicals and waste dumped by mining operations leads to cancer, lung disease, and DNA modification, according to Amnesty International. Most of the cobalt mines in the DRC are owned by Chinese companies. For example, 15 out of 19 companies operating in Katanga are Chinese. The DRC supplies about 70 percent of cobalt to the global markets, and 30 percent of that cobalt originates from what is called artisanal sector mining, small-scale mining that relies not on industrial tools but on manual labor, and is characterized by a lack of transparency/accountability and rampant corruption.

The inhumane mining of cobalt is facilitated by the poverty, corruption, lack of quality governance, and the rule of law in the DRC. Sadly, China and the private sector artisanal mining companies have taken advantage of the vulnerability of the Congolese population and found willing collaborators among the ranks of U.S. Government officials. The U.S. Government has been mostly complicit with mining exploitation, and its promises to revise in 2008 Chinese mining contract have barely brought concrete results.

So what can be done? We should work on reducing Chinese dominance in the DRC mining sector, while mitigating the global reliance on the Belt and Road Initiative by applying the strategy of de-risking and diversification of our supply chain. Particularly, we must address the issue of child labor and corruption, as proposed by Congressman Smith, to ban certain goods made with child labor or forced labor in the Democratic Republic of Congo from entering the United States, Mexico, and the Canada markets.

To that end, I propose the following: advancing an aggressive implementation and expansion of the African Growth and Opportunity Act, AGOA, U.S. Development Finance Corporation and the Prosper Africa programs; reinforcing and improving public-private partnerships with governments across the board working with big tech companies and even development and financial institutions with direct impact and influence in the market, using their leverage, incentives, and tools to ensure a clean supply chain, not tainted with child labor, corruption, and abuse.

We should pressure China through our strategic engagement to practice due diligence in dealing with the DRC government and private-sector companies to prevent human exploitation. After all, China has a vested interest in being seen as a responsible producer of goods, especially once awareness of the human cost of Congolese mining is widely known. Enforcing the DRC laws: The DRC government must ensure that existing laws are fully enforced. The DRC government officials implicated in collusion with businesses that engage in inhumane practices must be prosecuted and held ac-

countable. There should be sanctions: U.S. and private sector engagement in the DRC must be conditional upon the upholding of humanitarian guidelines set forth by international and companies' laws.

We should encourage and assist the DRC to establish itself as a key player in the global green energy revolution. Countries like South Korea, Finland, and Latvia have proven to be models for electronic and cyber innovation. Given its abundant resource, cheap labor, access to trade routes, and location at the center of Africa, the DRC could become the leader responsible for cobalt production and a hub for electronic manufacturing. As such, the DRC will provide the Western market with an alternative to China. Here, by the way, I would like to mention, as well, the African Continental Free Trade Agreement, which I think will offer an opportunity for future American companies.

We should support and protect independence and credible reports, research, and the whistleblowers. We should keep working and supporting an independent civil society movement that can report about the issues with credibility. We should promote democracy and the rule of law with special focus on the upcoming DRC elections. The elections are an opportunity to ensure the legitimacy of national institutions, without which instability, poor governance, and lawlessness persist. A strong dynamic of a thriving democracy in the DRC constitutes a U.S. national security interest. As a matter of fact, the BRIDGE to DRC Act, introduced by Congressman John James, must be ratified and become U.S. official policy and strategy with the DRC and the region. And here I'd like as well to recognize the letter that Senator Coons and Chairman McCaul wrote, I think about two days ago, three days ago, about the upcoming DRC elections.

And lastly, investing in education. As Nelson Mandela once remarked, "Education is the most powerful tool to change the world." Children must have access to quality education and not be caught between the global race for industrialization and great-power competition. Thank you for having me, gentlemen. I'm looking forward to your questions.

Chair SMITH. Thank you so very much. The Commission will have to take a very brief break, recess. There's a vote on the floor. I have one minute to get to the House, so I'm going to run. There's one right after it, but I'll be back in about 15 minutes or so. I apologize but I do have to go, and I'll be right back, hopefully with some other members.

[Recess.]

Chair SMITH. The committee will resume its sitting. I apologize for that delay. We did have two votes. Commissioner Ryan Zinke is here, former Secretary of the Interior and now a Member of Congress. Thank you, Ryan, for joining us and for your leadership on this Commission. I'd now like to go to Nick Niarchos for his testimony.

**STATEMENT OF NICOLAS NIARCHOS,
FREELANCE JOURNALIST**

Mr. NIARCHOS. Chairman Smith, Chairman Merkley, and all other members of the Commission, thank you for inviting me to speak. I'm here to testify about the environmental impact of copper-cobalt mining in the southern DRC. I'm happy to talk about other things in questions, but I was asked to talk about the environmental impact. I visited the DRC six times between 2019 and 2022, reporting for *The New Yorker*, *The Nation*, and *Antelope* magazines, and for an upcoming book. On each of these trips, I have seen the intense environmental degradation and deleterious effects of the practice on the health of the local population. Copper and cobalt are two key materials for the creation of lithium-ion batteries, electric devices, and especially for the electrification of transport, which is an important factor in the reduction of fossil fuel emissions and the slowing of climate change.

The question we must ask ourselves is whether the harm done by the extraction of these metals, and indeed the fossil fuels expended in their mining, transport, processing, and so on, does not outweigh the benefit. Is the juice worth the squeeze? Too often have natural environments been destroyed in the name of progress and too often have the lives of people far from the cities in which the minerals are consumed, been destroyed. The local population does not benefit, and they are left with little more than holes in the ground. There is even a term for these places. They are known as sacrifice zones.

In reporting for the *Nation* and for the *New Yorker*, I have seen how landscapes in Congo, Indonesia, and the Western Sahara have been destroyed, the water polluted, and the air filled with dust and carbon as mining companies rush to extract minerals like copper, cobalt, lithium, and phosphates. Oftentimes human rights abuses go hand-in-glove with these environmental catastrophes. In Congo, the miombo forests of the southern savanna have been cut back, and the land looks as if it has been bombed. I have also seen that there are ways to mine responsibly, ways in which mining can be done in what is known as a closed loop. Sadly, these examples are exceptions to the rule.

An environmental catastrophe is underway in the southern DRC. The rush to produce devices, batteries, and electric products more cheaply has created a demand for the metals that has led to more and more unscrupulous behavior. Chinese firms and traders are at the forefront of these practices. There is a saying in Congo: If they don't give their workers shoes in their own country, why would they give us shoes here?

In Congo, there are two types of mine, although there are many gradations between these two. There are industrial mines. They use modern and mechanized methods, and they are responsible for the majority of the cobalt that comes out of the DRC. The industrial mines I've been allowed to visit, including the giant Kamoto Copper Company mine near Kolwezi—that's owned by Glencore—have emphasized their environmental mitigation efforts. However, I was not permitted to visit the giant Tenke-Fungurume Mine, or TFM, located between the towns of Likasi and Kolwezi and operated by the giant Chinese firm CMOC or China Moly.

Other journalists have also been subjected to harassment while visiting the Tenke-Fungurume site. I visited an adjacent site where small-scale miners show me polluted rivers in which women washed clothes and minerals. A 2021 report by the NGO Save the Children showed white residue flowing out from the TFM site. This morning, I spoke to my friend Hugh Kinsella Cunningham, who's a photojournalist. He's out in DRC at the moment, and he contributed to that report. He told me that in the village of Mulundu he saw white residue blanching the fields and that residents there complained that their crops were dying and that they had to wash in polluted water.

The second type of mine in Congo is the artisanal mine. Artisanal miners are people who mine for themselves or small cooperatives. Before sale at these depots, but in some cases after, the ore is crudely processed by washing it in local water supplies. Studies show that fish and rivers in the mining provinces have been contaminated with heavy metals and uranium. At the village of Samukinda I saw how cobalt washing, as well as effluent from a factory processing copper and cobalt, had destroyed fields. The chief of the village, Rikomemo Samukinda, explained that they can no longer grow food there and that more and more of the villagers had to take risky mining jobs in order to provide for their families.

In southern Congo, women wash raw mining material, which is often full of toxic materials and in some cases is mildly radioactive. If a pregnant woman works with such heavy metals as cobalt, it can increase her chances of having a stillbirth or a child with birth defects. We've heard from Senator Merkley about the 2020 study in *The Lancet* showing that women in southern Congo had metal concentrations that are among the highest ever reported for pregnant women. They also find a strong link between fathers who worked in mining and fetal abnormalities in their children.

What's more, children as young as 3 mine and handle the toxic ore. They are sometimes drugged and deprived of food. These factors all contribute to developmental disorders and reduce life expectancy in the mining regions of the DRC. In March 2022, I spent a day with Dr. Billy Mukong, a local physician in the mining town of Kolwezi. As Dr. Mukong did his rounds, he introduced me to women whose children were born with defects. Some had swollen heads. Some were developmentally disabled. The defects, he said, were thanks to exposure to dust that is blown off the back of trucks carrying raw and processed ore around Kolwezi.

The depots where the ore is collected are often run by foreign traders. Many are Chinese. In fact, most are Chinese. There are also some Lebanese and Indian nationals who have settled in the region. Some of the depots are owned by or supply larger depots owned by international mining companies. The most prominent of these is Congo Dongfang Mining. CDM is a subsidiary of Huayou, a Chinese-based company that has supplied cobalt to firms like Apple and Samsung. CDM has said that they have made efforts to clean up their supply chain and ensure that children, for example, are not mining cobalt, but last year, I traveled from an illegal mine site outside the town of Fungurume with a local dealer in copper and cobalt ore who pointed out where he sold his product—completely unregulated product. The site was owned by CDM, who

could not possibly have controlled how the ore was mined or who mined it. When cobalt is collected, it is processed into hydroxide. This is often done inside the DRC, but sometimes the unprocessed product is shipped out on a flatbed truck. At the Kasumbalesa border post, trucks idle for days until they are allowed out of the country. People in the towns complain of severe asthma.

At processing facilities in China and in Korea, this material can be mixed with industrial product.

More needs to be done to trace the supply chain and ensure the rights of the people at the very bottom of it.

The bottom of the supply chain is rife with human rights abuses, as we have heard. Such abuses also happened to journalists and investigators. As has been noted in my own work, I was disappeared and detained for six days by the Democratic Republic of the Congo's government as I tried to shed light on some of the abuses I document above. I'd like to take this opportunity to thank the members of this Commission and others in the U.S. Government who helped secure my release. I want to note that some Congolese journalists are not so lucky. The journalist Stanis Bujakera Tshiamala languishes in jail for a report that he reportedly did not even write, and more must be done to promote transparency and thorough reporting on the supply chain, which firms and governments would rather keep secret.

I'd like to close quickly with a thought or two about solutions. Banning Congolese cobalt—it's a good idea on the face of it but it needs to be coupled with action to create jobs in the province. Without provision of an alternative form of employment, it could harm the poorest people in that nation. In the DRC, we've seen how bans of tantalum and tin ore have contributed to criminality instead of curbing it. So new solutions must be envisaged. They have also empowered unscrupulous traders who deal in falsified tags. Let's try and not make the same mistake again.

Let me be clear that the consuming countries need to provide real solutions to address the lack of work in places like the DRC, to provide alternatives to artisanal mining or at least to make it safer and cleaner. Countries like the U.S. need to insist on environmental protection and on recycling to recover critical metals. We also need to ensure that democracy and the rule of law are upheld. As Congo moves towards its elections this December, I believe the United States should insist on a free and fair voting process as the bedrock of any state of law. This will be key in regulating this industry and making sure that value can be shared with some of the poorest people in the world. Thank you for your time today, and forgive me for going over.

Chair SMITH. Mr. Niarchos, thank you for your testimony, and we're glad you're safe. Thank you for doing a strong appeal for those journalists who do remain in prison, especially the Congolese. Thank you.

Commissioner Zinke.

Representative ZINKE. Thank you. As a former Secretary, and looking at lithium, cobalt, and the series of critical minerals that the DRC—and, by the way, I've been to DRC. It's struggling—that would be a kind way to say it. But there were some efforts, I understand, by Ford Motor Company and IBM on using blockchain on

cobalt, particularly to try to look at where it's coming from. Are you aware of any of those efforts as far as blockchain being used, technology, to make sure that the cobalt and critical minerals, that there's a supply chain, and we can follow it through from beginning to end?

Mr. NIARCHOS. The question is to me?

Representative ZINKE. Yes, sir.

Mr. NIARCHOS. Yes, I'm—well, thank you very much for the question. Yes, I'm aware of many of these efforts. There are several different programs to do so.

Representative ZINKE. I'll open it up to the panel. Is anyone else aware of those efforts?

Mr. IVKOVIC. Yes, sir. Though I would like to note that trying to trace back the payments is not the only way to go about it. We have a serious problem that the entire refining is in China and that most of the mines are controlled by China, so the unreported cobalt that ends up in China being refined, being shipped into the United States, is the actual problem. It is not how to administratively address the issue of payments themselves. In my view, to say that this cobalt coming from 6-, 7-, 8-, 9-year-old kids is not landing in the United States is an absurd argument. It's certainly not a serious one, because mathematically it cannot be backed.

Representative ZINKE. What do you think the percentage is?

Mr. IVKOVIC. We don't need to think. We can see the reports. More than 80 percent of world refineries are in China.

Representative ZINKE. In particular on child labor being used on cobalt, the percentage—what do you guess it to be?

Mr. IVKOVIC. The reports today say that somewhere around 40,000 kids, age 6 and above, work in these illegal sites, and the proceeds of their work land in the supply chain. This is a matter of public record and the Department of Labor confirmed it.

Representative ZINKE. How does that translate, if you would, your guess on the amount of cobalt? What percentage is from child labor?

Mr. IVKOVIC. The German government in 2022 said that from artisanal mines, which include mines where people—or kids—work, at least 30 percent of the cobalt coming from the DRC is coming from these sites. It's a huge amount. This is a 2022 report to the German government.

Representative ZINKE. I appreciate that. Mr. Chairman, I yield back. Thank you.

Chair SMITH. Commissioner Nunn.

Representative NUNN. Well, first off, Mr. Chairman, I appreciate you bringing together this august panel. To the panel yourselves, thank you for taking the time to share with us. I think this is something that has sprung up on the front pages of the New York Times, the Washington Post, and the Wall Street Journal. Really doing a deep dive to see the impact of this on our communities is chilling.

I want to talk specifically about the Communist Party's extensive use of forced child labor in the world's cobalt industry. In the pursuit of innovation and the creation of cutting-edge technologies that we use here every day in the United States, we have inadvertently become consumers that bear the product of heavy exploitation,

much of it coming from children around the world. One such example is the extraction of cobalt, a vital component in the batteries that power everything from our devices here to so many of the cars that we see on the road today here in the United States.

Tragically, this extraction of cobalt is often tainted by the stain of child labor. The numbers are simply staggering. Eighty percent of the world's cobalt output is owned by Chinese companies. China imports 63 percent of the world's cobalt. As we just heard, more than 30 percent of the cobalt being extracted is coming from artisanal mines that would exploit child labor. Nearly 25,000 children are used to mine this rare earth metal. Now, as a dad of six who just was fortunate to get to adopt two young girls this year, I cannot imagine the cruelties and the hardships that these children are being exposed to daily in the mines where they are forced to extract this.

I'm appalled, as this Commission has long been, at the use by the CCP of child labor in these horrific mining situations. The truth of the matter is that during Xi Jinping's authoritarian expansion, he has used his notorious Belt and Road Initiative, and the Chinese Communist Party has swept up millions of unwilling individuals to fuel their economic regime, something that both Republicans and Democrats have called out as being completely untenable. And yet here he is in the United States attempting to expand influence on our energy production in America.

Today we examine specific instances where the Chinese Communist Party has used forced child labor to supply the world's electronics with cobalt. Getting into it, Ambassador, you have been on the front line. Mr. Schultz, you have seen the wolf warriors that come from Beijing and their attempt to pressure other countries around the world—following their economic advantage. So I'd like to talk a little bit about, first, just the scene setter on how the Belt and Road Initiative has contributed to the cobalt disaster that the rest of the world is now facing today.

Ambassador SCHULTZ. Thank you for the question. My expertise probably isn't as good as Milos's and some of the other witnesses in terms of the nitty gritty, the details of the cobalt industry, but I can talk a little bit about what I saw in Africa when I served there and how China works there. In fact, we were just discussing it at the break that, you know, China provides money to Africa, at least in theory. The whole Belt and Road Initiative is—you know, I think I misspoke earlier when I said that they've devoted millions of dollars to preventing or trying to exclude the United States from African markets. It's, of course, billions, and probably tens of billions, if not hundreds of billions.

So the way it works—actually, in simple terms is, the Chinese come to an African country, and they say: We think you need a road from point A to point B. We're willing to finance it. We'll give you a project loan to build that road. In return for that money, you have to agree to sole source—it has to be a Chinese company. It has to be Chinese labor. It has to be Chinese materials, Chinese equipment, etc., etc. So in fact, there's no follow-on effect in the local economy because no local people are working on the projects. It's only Chinese labor that's brought into the country, and often

as not is demobilized in place, so you end up with a Chinese minority in an African country where it never existed before.

Representative NUNN. Ambassador, you would say then that all roads and the Belt and Road Initiative really are leading to Beijing? I mean, at the end of the day—

Ambassador SCHULTZ. Yes, that's a very nice way of putting it. I would say that, yes.

Representative NUNN. I would concur with you on this. Look, at this point, China is by all means economically exploiting other countries.

Ambassador SCHULTZ. Well, I think it's fair to say that it's a debt trap, you know? And what the sweetener is, of course, is that they're offering the government in power money under the table. So in Zambia, when I was ambassador there, it was pretty clear that the previous government, you know, that there were officials in it that were getting a piece of the pie. They were being paid to accept these projects that the country really didn't need.

I mean, in fact, we were just talking about this a moment ago—Zambia has two brand new airports, or virtually brand new. Both of them were built for close to a billion dollars, the two of them together. There are no airplanes because—I mean, one of them is in the northern part of the country, Ndola. No one flies there really, to speak of, so you've got this huge Chinese-built airport that's empty. Even the airport in Lusaka is not heavily used. On top of which, the other problem with Chinese projects is that they're not necessarily well built, so they tend to deteriorate fairly rapidly.

In Zambia, the Chinese roads are painted. They're painted with black paint, and so the first time you hit a heavy rainfall, they start to wash out. You know, meanwhile, of course, you've got billions and billions and billions of dollars of debt that's been put on the country's credit card that has to be paid back.

Representative NUNN. Right. I think that's really what we're looking at. You use the term debt trap. I think you're absolutely right. It's economic hostage-taking that they've indebted these countries to, and then bridled them with a modern-day colonialism to exploit some of their most precious commodities, in this case their children. They're also using that exploitation to go after rare earth minerals in the form of cobalt.

I want to speak here to Professor Ivkovic. Milos, you talked about a recent report that shows violence in Congo has displaced approximately 7 million people. What does that mean for those left behind today and the type of forced labor they're required to do, in the machinations of Chinese cobalt exploitation?

Mr. IVKOVIC. That means that they don't have any alternative but to work as slaves.

Representative NUNN. So now we have both economic hostage taking and human exploitation happening right on the same hand. Will the factions in charge of these mines refill employees with other parts of the world? Are they going to continue to dig into an exploited underclass, largely children, in your opinion?

Mr. IVKOVIC. Absolutely. Not only children, but all the underprivileged. As I mentioned in my testimony, almost 60 million Congolese live on under \$2.15 a day. They're forced to work as slaves. We describe this as effective slavery under international law.

Representative NUNN. China's even gone beyond this indentured servitude or slave labor, as you highlight, locally. But they're starting to bring in others from, you know, exploited masses around the world—Uyghurs from China, dissidents from North Korea, people that they find untenable they send to work, basically to death, in these cobalt mines in the heart of Africa. Is that correct?

Mr. IVKOVIC. That is exactly correct. And our problem is not enforcing U.S. laws, which are already on the record. It is not as if we need new bills to remedy the situation. This grave circumstance is already covered by Federal legislation. It is just that we do not have enforcement that would stop the supply chain. So long as there is demand, there will be slavery.

Representative NUNN. I'd like to turn next to you, Joseph. One of the things you highlighted here with the Atlantic Council is how conflicts around the world could increase China's superiority over the West, including the United States, with owning the vast majority of cobalt and how dependent the rest of the world has become on it. Could you talk a little bit on where China really has a chokehold on this rare earth mineral that the rest of the world could not make up if there were to be sanctions or if there were, God forbid, a conflict directly with mainland China and the United States?

Mr. NGURAMO. Yes, sir, absolutely. Well, I've been thinking about this situation, particularly child labor and—let's say the whole equation of how the global economy has been working over the past 30 years, and how we basically got ourselves into this situation that we are heavily dependent on China, particularly in terms of products such as semiconductors which derive from DRC cobalt and lithium and copper, sadly, with child labor and human right exploitation.

First, we have to be, I think, frank, in terms of looking at the problems, how we got here, and have the courage and the leadership as well to try to address the problems. Of course, it's a very complex equation, so we cannot solve it in, let's say, one day or maybe 5 or 10 years, but I'm very encouraged as well to see all this engagement here. I've read some, I think, great documents that the U.S. Government is putting forward in terms of addressing these issues—such as the U.S. National Security Strategy, and the bill that the congressman is putting in as well.

I think this kind of initiative, this approach, will help us to maybe step by step, you know, create a new strategy so that the United States is not dependent on China, especially if there is a conflict. Because, quite frankly, right now we are very vulnerable. Let's just put it very straightforward: If there is a conflict with China, China can just cut off the supply of semiconductors and our defense is exposed. You know, so the last thing we want to do is get in that position. So that's a problem.

I'll just say as well that just engaging these countries, like the DRC, is very difficult, for different reasons—the lack of rule of law, quality governance, you know. But here's the thing—and again, I'd really like to mention this actually—I am really, really supportive of the bill that Congressman John James put forth. For these reasons. I read it and I read the Chair's bill as well. Actually, I feel like they're kind of complementary because the John James bill ac-

tually says that we should make it a national U.S. priority to make sure the DRC is stable, the entire region. I think there's actually a national security interest. It addresses issues with child labor, but not to the extent of Congressman Smith's bill.

I like to think that we should somehow maybe combine both—see what's going in one bill and what's going in the other bill, and we will have a more coherent comprehensive rule of law. And hopefully, that will be the basis of a strategy dealing with not only the DRC, but the entire region. Hopefully, in the longer term, we'll be able to somehow take a more, let's say, balanced approach, in case we get into trouble with China, you know? We see what's happening in Ukraine with Russia. You know, these countries tend to weaponize these kinds of tools. We're very vulnerable. Thank you so much.

Representative NUNN. I'd just like to—want to thank the Chairman, Chairman Smith. You have led a dedicated effort to hold the Chinese accountable for what they've done internally to the People's Republic as well as what they've done externally, and then this tragic case of exploiting children. You have brought this to the forefront. There are so many, I think, incredibly timely things that the United States needs to do on a strategic level to be able to not only counter China, but really this mass amount of child exploitation that's happening in the world over a rare earth mineral.

I want to ask the panel very quickly, writ large here, strategically, what things can we be doing to hold Xi Jinping accountable on this front, and our allies, and to offer a better lifeline to those countries in Africa that want to come into the global economic success story that has been the rest of the world, without feeling that they have to be economically held hostage or they are in a death spiral that they cannot get out of with China's One Belt, One Road Initiative? I'd open it up to the panel.

Ambassador SCHULTZ. Well, I'll say two things, actually, that I mentioned in my testimony. The first is I think we should be providing more money through the Development Finance Corporation. We should actually be competing with China to provide project loans to help build needed infrastructure in Africa but do a better job of it than the Chinese do. Giving them infrastructure that they actually need and building it well, and doing it at a cost that they can afford.

The second thing is I think we should be—we should be pretty proactive, frankly, about helping African countries get out from under China's debt. You know, in 2011, the HIPC process basically wiped out the debt of most countries, you know, in Africa. We were major players in that, along with the European countries. I think that China basically needs to take a haircut. They have been, you know, kind of force-feeding these debts, these loans, into these countries. They now have tens of billions of dollars that they'll never be able to pay off. They should be encouraged to basically write those debts off.

Mr. IVKOVIC. In looking at this problem, we have two perspectives. The first one is U.S. national security, which I think is in danger. The supply chain shows that the U.S. cannot object to the practices because it is so heavily dependent. In order to address national security perspectives, first we need friends, as the Amba-

sador said. And for everybody who has ever been to the DRC, to Zambia, to the countries in the region, if you go to the villages, these people are U.S. friends. They adore the United States and they're hopeful that this body and the U.S. administration will actually protect them. What we need to do is show our friendship back. Apart from stating, "We are here for you," there is nothing else happening. These people need roads. They need schools. They need hospitals. Nothing is happening, so we need to be there also helping them help themselves.

The second issue is, we need to help our companies operate in the region of Africa and in the supply chain. Currently, without governmental support, we will not have U.S. companies being engaged. There is zero chance. Their incentive is legally jeopardized because they can face investigation and criminal prosecution if even their sub-subcontractors did something wrong in Africa, while we have practices of child abuse which are not prosecuted at all. So they do not want to go into these regions. Secondly, it is very affordable to keep the supply chain active, so we do need a non-market intervention immediately in the supply chain.

Let me be very clear, if we want to build a refinery—we need a refinery, because all refineries are in China. If we want them to be built by U.S. companies—and the U.S. companies can build them because they develop patterns for these refineries—they need support from the government. They cannot be led into the belief that they can compete in the market with Chinese prices, because they cannot. They will have a loss of two to three years in their investment unless the government steps in.

Then we need to address these atrocities. There are some sanctions on the record, but by far not addressing all the actors involved in these abuses. There is almost no criminal prosecution on the record, even though we are talking about crimes against humanity and crimes which are very similar to slavery under international law. So long as we are silent and we allow impunity for actions, and we do that because our national security is jeopardized, there won't be a solution to this issue.

Representative NUNN. Thank you.

Mr. NGURAMO. Congressman, I did not really understand the last part of the question well, so if you could repeat it, please, that would be great.

Representative NUNN. Strategic solutions to counter China's exploitation in Africa.

Mr. NGURAMO. Yes, absolutely. So, first of all, Ambassador Schultz and Ivkovic have already mentioned it. I will just maybe add a few elements to that. I think we have really solid strategic documents framing these issues. I'm really encouraged by the bipartisan approach. If you look, let's say, at the previous administration, the Trump administration, and this administration, the Biden administration, they actually keep in place or have kept going with certain decisions that were taken before—related to these issues.

Here's the thing. If we don't lead, nobody will ever do it. We have got to understand that. As was just mentioned here, a lot of people in the DRC actually, interestingly enough, always look up to the United States for help and support. They do, which is interesting

in many ways, and I think that's for good reasons. You know, they think that the U.S. can help, so we should not let them down. And particularly address this issue of child labor and human exploitation in these mines.

Now, here's another thing. We have to be realistic. We have to have this ideal role; eventually we hope democracy will prevail but at the same time we have to narrow it down in terms of how we actually operationalize this ideal, make it happen. That will be short- and long-term goals that we are having together. And eventually, I'd like to think that the U.S. will prevail over China.

Concretely, what we can do—for example—we have these DRC elections coming up this December. Let's make sure those elections are credible, fair, and transparent, OK? Because the history of this country has shown that as long as there is this issue of illegitimacy of elections, we spend a lot of time, politicians do, trying to find a solution, five years later, and then we go back to that the next election. Here's the thing: If we don't do that, for example, China will not come back and say, hey, we would like to know the truth about the election that happened. No, but that leadership can only come from the United States and from, let's say, our allies, like the European Union, for example.

Why does this matter for us and our interests? I like to think that a strong democracy in the longer term actually will be in our national security interest. A strong democracy in the center of Africa—it's such a big country with enormous potential, you know, great people, by the way, very dynamic, very hardworking people—will offer a lot of opportunity, even for our private companies to go and invest there. So those are the small things, I think, that will help us eventually prevail over China in the long term in this battle of global-power competition.

You know, what I mentioned earlier in terms of some of the policies in place, such as—I guess I agree with this. You know, sometimes I hear this word “decoupling.” I think it's a bit, quite frankly, not pragmatic. You know, I mean, we cannot really completely decouple from China. If you look at the financial and economic integration, it's almost impossible, but I think using de-risking and diversification is probably be doable.

As a matter of fact, I'd like as well to make sure the electric vehicles project—I think the MOU was signed between the U.S. and Zambia and the DRC. Those are the kinds of things we need to be supporting. I think the Lobito Corridor was agreed upon as well. I think these are the pragmatic projects that if you actually were serious about getting engaged about this issue, will actually help us to prevail over China in this competition.

Representative NUNN. Thank you.

Mr. NIARCHOS. Well, as a journalist, I guess that it's sort of beyond my expertise, but I can offer a few observations. You know, you go down roads between different towns in the DRC and you see, you know, ChinaAid, you see the Chinese hospital, then you see maybe Japan, or this was given by the—you see very little evidence of U.S. aid and U.S. programs in that part of the world. So I think that that's very important. I also would, once again, want to say that the protecting of people who are trying to bring information about these mines and about the conditions on these mines

to the forefront is very important, because a lot of the time, you know, people will look at a phone or an electric car and not understand where that came from.

Representative NUNN. Right. I want to thank the panel. I want to thank the Chair on this. I think every American should consider the next time they use their cell phone, or jump into an electric vehicle, or have power that is provided by cobalt, they should look at the supply chain that's provided it. They should recognize immediately there's a national security interest that's undermining the U.S. ability to influence the world. They should recognize that they're playing a direct role in the exploitation of millions within China, and specifically those in Africa—young children exploited inhumanely, working in a mine far worse than any shoe factory in China, but are being worked literally to their death as indentured servants.

America has a leading role to play in this. So does the West, but so does China. Calling them on these types of issues ensures not only that Beijing is aware of what's happening, but that there will be a cost to pay for the exploitation, for the pillaging of Africa and its children, as well as what we as Americans have responsibility to do to ensure that this does not happen going forward. Mr. Chair, this is a bipartisan issue. I cannot thank you enough for helping lead the charge and helping to salvage not only America's national security, our economic interests, our industrial strength, but calling the bad actors on profiting from the death of others. Thank you, sir.

Chair SMITH. Thank you so very much for your eloquent statement and for your excellent questions. I have some questions I'd like to ask, and then we'll conclude. I thank you for your patience, especially during that interruption during the voting.

I wonder how many of the car companies—including Tesla, Ford, GM, and the others—including the United Auto Workers, who by the way, endorsed me for election. I'm a pro-labor Republican and believe very strongly in labor. But how many of them have spoken up about the supply chain—that the product that they're obviously including in their EVs has been absolutely tainted by child labor and adult forced labor, which, as has been said a few times here, is a crime against humanity? I'm wondering, where are they? I mean, we're going to ask the UAW to come and testify in a future hearing. We're going to ask the car makers if they'll come forward. This Commission has done that with regard to the genocide Olympics, when we called forth and heard from others, like Coca-Cola. So I'm wondering, have they said anything? Are they—in your opinion, have they been in any way intervening on behalf of the exploited?

Nick.

Mr. NIARCHOS. I would say that, yes, some car companies have addressed it. Off the top of my head, BMW has said that they will only buy cobalt from one mine in Morocco. This has come out in the German press recently: there were some criticisms of that mine in Morocco. And I believe Elon Musk was asked about it and said he was going to put cameras on the heads of children or—sorry—cameras in the mines, or something like that, to stop children going down. I'm not sure what other solutions have been proposed.

Chair SMITH. Yes.

Mr. IVKOVIC. If I may, I think we need to recognize the situation. I doubt that there is any Western company that wishes to have this supply chain, to be very frank. Whether they use sufficient pressure is questionable. The second question is whether they have sufficient pressure over the supply chain which is completely monopolized by China. That said, it is important that there be a joint effort between car companies and the U.S. Government to address this issue, because only that joint strength can bring about a resolution of the problem.

Chair SMITH. Have you witnessed any joint strength coming from the administration?

Mr. IVKOVIC. Well, what I have seen is an aggressive policy of bringing battery production facilities to the United States, which is a step in the right direction in my view. I also think it's a good step to start sanctioning actors that through corruption are supporting all of these practices, at least indirectly. Whether there is room for improvement? Absolutely, yes, because it cannot be that in 2020 the Department of Labor publishes that the armed forces of the DRC are effectively complicit in the worst forms of child labor and there be no reaction.

Chair SMITH. Let me ask you, have there been any prosecutions of the people that are running the mines in the DRC? We had in our last hearing a witness tell us how some of the individuals were whipped by Chinese guards, and there was nothing from his point of view that was done about that. Are there any prosecutions?

Mr. IVKOVIC. If I may just speak to the pattern of how these "prosecutions," work, because I cannot call them, as somebody who teaches law, prosecutions. They are announced to the general public whenever there is international pressure, such as this hearing or any sort of similar act, mostly coming from Washington. Then after six months, the government comes to a resolution, which is in billions and should be paid to selected accounts or selected governmental entities, mostly by the Chinese. So it is just a cost of doing business. There is no serious punishment. There is no actual punishment for the crimes that you mentioned.

Chair SMITH. Do any of those funds find their way to the exploited person who has been beaten or even killed?

Mr. IVKOVIC. To put it politely, I doubt it.

Chair SMITH. Anybody else know that?

Mr. NIARCHOS. There's also probably a sort of extrajudicial process of deportation for smaller Chinese firms and things like that, and workers that are kicked out. One has to remember as well that quite a lot of the Chinese people who come to DRC are, you know, themselves exploited and themselves kind of living in situations of quite intense poverty, that I've seen.

Chair SMITH. Let me ask you with regard—I met with Ambassador Lucy Tamlyn, our DR Congo ambassador. A very fine person. We talked about the MOU, and I also raised this with John Kerry at a hearing of the Foreign Affairs Committee. The concern I have with it—I mean, it's very nice sounding. It's "sense of the Congress" language, which we do often here, or "sense of the Senate." But it really has no teeth. It's aspirational. Even my bill that's

pending, and the new one that we're going to do, talks about strategies, which is all great.

I'm the author of the Trafficking Victims Protection Act of 2000. It took me three years to get that piece of legislation enacted into law. It was bipartisan. It was vigorously opposed by the Clinton administration. I had the hearings, so I can say without any fear of contradiction, they thought even a TIP Report would be counterproductive. Naming names would be counterproductive. They said it on the record. Above all, they thought that any kind of sanction would also be fruitless and counterproductive. Madeleine Albright made it very clear that she was not for this sanctions regime that was included in the Trafficking Victims Protection Act of 2000.

We did prevail, and I've done 20-plus hearings in follow-up. I think it's 35 hearings since. No one doubts the importance of having at least some sword of Damocles hanging over an offending nation or entity, that they're going to be held to account. It's like a criminal sanction for breaking laws, you know, right here in DC or in my own state of New Jersey. You've got to have a penalty phase. The MOU, nice, but I think 10 years from now we'll say it was nice but didn't do anything. You know, so our bill would provide a rebuttable presumption. It is serious. It has a long way to go, because it's going to be difficult to get it passed. This administration probably will not support it. Maybe a future one will.

But those kids—I mean, our Labor Department says 25,000, others have said 35,000 to 40,000 kids—there's all different estimates, of course, but lots of children are being exploited. As you had mentioned, Milos, you know, very, very young kids as well. We need a penalty phase, if not to do anything else but to get the DR Congolese government to incentivize their own, create their own capability, their own refining capacity, and make the money that they're now shipping off to China, and all of that exploitation. It doesn't happen in a day, but I think there needs to be a pivot point. And I think a significant penalty would be one of them.

There are, thankfully, some other mines. I don't know how profitable they are in terms of producing product. Not money, but how efficacious they are. It would seem to me that for our critical military means, for cell phones and other things, you know, there could be a pivot to doing more of those mines. And of course, as you said, Milos, bring back that capacity here, but for the DR Congolese, they should do it there. It should be all within the parameters of one country, so they reap the real benefits, and not the Chinese Communist Party. We're seeing it in other areas where our pharmaceuticals are gravely at risk. We all know that. Antibiotics are at risk. We've had hearings on that as well.

In a conflict with the PRC, they'll shut off our medical supplies in addition to everything else. We're much too beholden to them, and as we all know, they have five-year plans, where they want to monopolize. They do predatory pricing to get there, and they get there. All of a sudden, they own it all. I think—you know, a lot of people don't like sanctions, but I was for the apartheid sanctions. I was one of the few Republicans early on back—I've been here since 1980—who not only voted but spoke out against apartheid, believing passionately that, yes, sanctions may hurt some of the Af-

ricans—Black Africans—South Africans. But the appalling nature of apartheid was such that sanctions are a means to an end.

So I just raise that, this idea of sanctions. Your thoughts on that? Our bill of—we did the bipartisan, the four corners of our Commission backed it the strongest, and it did become law. There was pushback from the administration at first, but thankfully Joe Biden did sign it—the legislation with regard to the Uyghurs, the Uyghur Forced Labor Act. That had a presumptive rebuttable presumption in it. We've had hearings since on implementation. It's not being implemented in a great way, but it is being implemented. It's very hard, but I think we really need to step up. Your thoughts.

Ambassador SCHULTZ. I guess I will flip it a little bit, because for me, when I think about sanctions, I tend to see it in the context of the Russia-Ukraine conflict, and, you know, sort of the central role that it's playing there. You know, I think that you're right to raise apartheid as an example as well. I mean, there aren't very many instances where sanctions have been successful. Where they have been successful, it's because the international community is applying the sanctions, not an individual country. So if we were going to do this in the context of child labor in Congo over cobalt, we need to have our friends and allies applying those sanctions as well. There needs to be widespread pressure brought to bear and I think that that's why the sanctions have had an effect in the Russia-Ukraine conflict as well, because they've been widespread. Because Europe is with us on this, and that makes a big difference. So that's kind of my—

Chair SMITH. I agree with that. When you have global or a lot of buy-in with the European Union and others, it's great. I'm the author of the Belarus Democracy Act of 2004, '06, '11, and then the most recent one. When we did the original Belarus Democracy Act, there was pushback galore. Nobody would ever tell Lukashenko what to do. We got it passed. Bush implemented it very, very aggressively, put 200 names right off the bat, including Lukashenko's top cronies, on there. They couldn't get a visa, couldn't do any kind of trade. To our great, great happiness, all of us, the European Union followed suit and had pretty much the same list, so we got people out of prison, lots of them. Of course, Lukashenko is doing horrible misdeeds now in tandem with Putin—but it worked.

But we led, that's the point I'm getting at. We led. And this—the idea behind this bill is we want the others to join us. We hope we're not alone but, frankly, even if we are, it might save some children, it might get the leadership of the DR Congo to really accelerate taking ownership of their own—you know, to do that. So it's all—you know, and you won't have child labor or this forced labor for the adults. But I take your point. Thank you.

Ambassador SCHULTZ. Well, and I take yours, too. I think there's no—there's no substitute for American leadership. I think that's kind of the message that all four of us have shared today.

Chair SMITH. We also have done it on—as you know too—Global Magnitsky. Not everybody was on board on that at first, but it has made a difference.

Mr. IVKOVIC. Chairman, if I may, on the issue of sanctions. I would like just to answer three tough questions, and I think they're going to your point absolutely.

Firstly, are we obliged to act? We are obliged to act, because there are crimes against humanity and crimes analogous to slavery that are taking place now. We are also obliged to act in order to protect the national security of the United States and its allies. As a matter of first legal reason, absolutely, sanctions can be used. They are countermeasures under international law. They should be used against states, companies, and individuals for acts that we described today.

The problem with sanctions is their limited legal nature. Sanctions are temporary, and they cannot be punitive, meaning that they should just temporarily halt a wrongful doing from happening, but then we need a solution. That solution is presently lacking. We need to support U.S. companies to find another supply chain, an alternative supply chain, and build it up. We also need to have actual meaningful consequences, such as criminal investigations, which will go after those who organized this supply chain and the suffering of tens of thousands of kids.

Now, the last point that I wanted to raise is, I do agree that just U.S. action is limited, but it is incredibly meaningful. And it can start a movement. If we look at Global Magnitsky, the problem with Global Magnitsky is not U.S. visas, because these gentlemen either way do not want to come to Washington, DC. The problem is that every single bank on the face of this planet will have to know your client rules, and they will not open bank accounts anymore. The U.S. will have the power through Federal criminal law to go after anybody who would allow circumventing the sanctions. This is an immensely powerful tool that can bring even those committing the hardest crimes into compliance. And then the EU and the U.K. can follow. Thank you.

Mr. NGURAMO. I'd like just to substantiate the point, as Milos just mentioned here, and try to use a case of—by the way, Congressman, thank you so much for your leadership between 2005, '16, '18, to the election in 2018, you know, in trying to get a bill out. You know, I was following what was going on in Congress, in the State Department. I'd like to say thanks largely to the leadership, and as well to Senator McCain—sadly, he passed away—who was really, really engaged. Thankfully, we were able to kind of corner Kabila to respect the constitution of his country and not seek an illegal term.

Coming back to sanctions—this case in Israel, Dan Gertler. That's a specific example of how U.S. sanctions are very powerful in bringing these guys to reason. Say, Hey, stop what you're doing, you know. Even beyond that, I think the way to phrase this one in the particular theme of sanctions, we can look at the tactical, operational, strategic level. What does that mean? At the tactical level, you know, a lot of these DRC government officials are getting money from Chinese companies to do these kinds of things. As a matter of fact, I think the bill you just mentioned already mentioned these kinds of things.

If we get credible reports that there are certain DRC government officials who have been benefiting from these kind of things, we should sanction them. We should sanction them. As a matter of fact, you know, they like to have the U.S. dollar in their pockets, in the bank, so it's going to be easy to do. The other thing I'd like

to mention is in terms of strategic engagement, we have the APEC meeting going on in San Francisco, I think, yesterday and today.

I think a strategy or policy done with China should be included in our conversations or our talking points with the CCP about these issues. You know, let's face it, maybe the DRC government might have a bit more of a conflict of interest in these kinds of things. But I'd like to think that the U.S. President, the Secretary of State, you know, the Secretary of the Treasury engaging with these kinds of issues, with the Chinese CCP, I think is going to have some kind of impact.

Of course, along the supply chain, some people are doing some bad stuff, or they're just part of a corrupt business model, you know, that is perpetuating human exploitation. If you have credible information that anyone or any companies benefit from these kind of things, we should slap sanctions on them.

Mr. NIARCHOS. Just two observations. One, sanctions have been used in the DRC against people in this sector before. Especially on Dan Gertler, who was involved in many of the largest copper-cobalt mines. Also, I just want to go back to something that you said in your question, Chairman Smith—whether cobalt can be refined in DRC. One of the big questions there is actually power supply. And to help the DRC refine their cobalt effectively, perhaps some sort of solution to DRC's power supply or engagement with that issue is very important.

Chair SMITH. Thank you. On that point, we have passed legislation—I was a co-sponsor of it—called Power Africa. And the whole idea is to try to bring the blessings of power, to schools, hospitals, and homes, to the greatest extent possible. It's a great point that you bring up. It becomes another incentive to up the power capacity of the DR Congo.

Just a couple of final questions—the U.N. role. Are they playing a positive role? Is the U.N. Human Rights Council, for example, investigating, sending in fact-finding teams of any kind? Worker recruitment and retention, how coercive is it, particularly for the children? I mean, when people find out, yes, there's an opportunity here, and then they realize how coercive it is, or isn't. If you could speak to that. Can they leave if they want to? The idea of payoffs to government officials in the DR Congo, is there any evidence that high-ranking officials are getting bribes? Who's looking into it? Is there any kind of investigative team looking into that, other than journalists who take great risks to raise questions? And people who are like yourselves, all of you? Who's doing it, anybody?

Mr. NIARCHOS. Yes, I can just talk very quickly on how coercive it is for children. You know, I've interviewed a lot of children who have been down into the mines. Often the pressure comes from the family. It's a poverty-related issue. As Milos said, you know, there's basically no other choice for these families. You know, if you're a child and you're basically told to go by your parents, I'd say it's sort of fully coercive. Is it coercive on the side of the companies that are buying? No, but basically, there's no other option.

And then, in terms of payoffs, yes, you know, there have been investigations of these Congolese ministers, and governors, and things like that. But often those are politically motivated. I think we saw the long investigation of former Governor Richard Muyej

of Lualaba Province, which concluded with a whimper rather than a bang, and I think that, again, it's used as a political tool rather than a real investigative tool in DRC.

Chair SMITH. Yes. Thank you.

Mr. IVKOVIC. Chairman, trying to address your questions as they were asked, the United Nations lost all their credibility because they did not examine the cases of mass abuse of people, including rape committed by U.N. forces in DR Congo. The people themselves do not have any faith in the United Nations in Congo, though they do recognize they still need peacekeeping forces. But to rely on the United Nations to examine this case, investigate this case, is not something—not the card I'd like to play.

The second one is about whether children are forced into working. How I like to compare it is with human trafficking cases. In human trafficking cases, we do not have to have initial force in order to influence a mind, a young mind, into compliance. And this is exactly the case of potential human trafficking. What we are witnessing is an effective state of survival where families are forced to send their own children into the mines just to live another day. Knowing that that day those kids will go or may go through sexual abuse, physical abuse, hazardous conditions, and maybe even lose their lives. So to say that we have proof of initial force bringing them into mines, we do not. But to say that there is no human trafficking and abuse and slavery-like situation, there is more than enough, because they are effectively, by circumstances, forced to be there. And they are abused while being there, while not being able to freely choose to leave.

Last but not least, about the corruption situation. Unfortunately, most reports do not come from government officials or governmental bodies. The most recent one came from *The Sentry*. It is titled, "The Backchannel: State Capture and Bribery in Congo's Deal of the Century." It goes into, in great depth, corruption in the mining industry and the connection between political leaders and corruption. And that is exactly the problem. Again, to my note, there is no criminal prosecution, there is no actual act against these stakeholders by means of sanctions or otherwise, and—it cannot be that the U.S. Government does not have information that *The Sentry* has.

Chair SMITH. Milos, thank you for that answer. You know, on the United Nations, when I heard that a number of children in and around Goma were being raped, 12-, 13-year-olds being given one meal, or a very small amount of money—again, these are 12- and 13-year-olds, I held four hearings on it, on the U.N. peacekeepers. I went to Goma. I met with the peacekeepers. I met with everyone involved. Kofi Annan put out a zero-tolerance policy. I think it was well meaning, but it wasn't all that well followed.

And I'll never forget, I had a woman at the United Nations Jane Holl Lute, who was frustrated. She's an American and she worked in our military, the Pentagon, for a while, but she was deployed there—or, seconded there. She did a wonderful job pointing out that there was zero implementation for the zero-tolerance policy. Maybe it's gotten better—or not. It's hard to say, but you're right about the lack of credibility when the peacekeepers themselves are, you know, there to mitigate harm, damage, and abuse, and they be-

come part of the abuse: Houston, we've got a problem. Thank you for bringing that up. I hope that the U.N., particularly the Human Rights Council, would do more to address this, because the exploitation, as we've all seen, is just horrible.

Now, I do have another question—are there mines that Glencore and some of the others run that are more ethical? They may have their own specific problems as well, but it seems to me the demand for cobalt is going to rise exponentially over the years, as the demand for EVs rises. I mean, these telephones don't take all that much, but a car does, and it's a huge amount of cobalt and other minerals. Your thoughts on some of these other mines as alternatives?

Mr. NIARCHOS. I mean, yes. I mean, the Glencore mines are run closer to international standards. You know, I think there was a report by RAID, which is an NGO, last year that sort of looked more closely at Glencore's employment practices with subcontractors. So there are still issues there, but, yes, there's less of an issue.

There is a big question about what battery technology has been used in electric vehicles. I will note that already half of China's EVs are lithium iron phosphate batteries, which actually have no cobalt. But they have another issue, which is the phosphate supply chain. So that's an important trend to watch.

Just going back to—actually, to something that Milos said. I'd just like to also highlight the important work of Congolese NGOs, such as AfreWatch, PODEFIP, and the civil society in Congo in holding people to account and really publishing reports and doing investigations that are very, very dangerous, that are more dangerous even than Western journalists coming into the country.

Mr. IVKOVIC. Chairman, coming to Glencore mines, I do not have any information—any credible information that Glencore mines have ever been involved in child labor or any similar practices. What we need, however, to recognize is that we're talking about up to two mines. This is not a source of cobalt—we do not have enough cobalt even if the entire production of Glencore were going into the United States. That is not enough. Out of the largest 14 mines, at least are Chinese controlled. I say “at least” because this is public information. Most likely, it is much higher than that. And this is the core of the issue, because even if Glencore is free of slavery or free of child labor in the mines, they still need to refine it somewhere. And that can be mixed with minerals coming from other facilities, which is a problem.

Mr. NIARCHOS. Yes, I just want to add that, you know, it can be mixed in China, so it's not necessarily happening in the DRC. It can happen overseas.

Chair SMITH. Okay. Thank you. Is there anything else you'd like to add before we conclude the hearing? Thank you for giving us so much of your time and, above all, your expertise. Your leadership is extraordinary. Thank you. The hearing is adjourned.

[Whereupon, at 12:20 p.m., the hearing was concluded.]

A P P E N D I X

PREPARED STATEMENTS

STATEMENT OF HON. ERIC SCHULTZ

A year ago, I was invited to talk to the Tom Lantos Human Rights Commission on a similar topic. My presentation then characterized our relationship with China and Russia in Africa as adversarial, tantamount to war. Moreover, I argued it was a war we were losing, and in fact had been losing for many years.

U.S. policy toward Africa, through the administrations of both parties, has been characterized above all by neglect. We have taken interest in Africa episodically, usually prompted by a crisis of some sort, and that interest usually wanes quickly and moves on.

The result is that we left Africa for others, especially China and Russia. They have expanded their economic and political influence on the continent for decades at our expense. Moreover, it would have been a struggle regardless. They had advantages that we lacked. China and Russia were on the right side of Africa's liberation struggles, and though that was two generations ago, it still matters to Africans. It will always matter.

Also, their governments subsidize and support their commercial ventures in a way that we do not. And they don't play fair: they abet corruption, and they ignore violations of civil and political and human rights.

As many others have argued, the world is at an inflection point, riven by rivalry and by violence. China and Russia pose a systemic threat. They are allied against us and they mean to change the world order that we helped build. Africa is one of the key battlegrounds in this conflict.

To win in Africa there are several things that we should and must do. To start with, we need to acknowledge that it is a conflict. It is no longer acceptable to say that Chinese investment is simply filling in where the West was too timid or too biased to venture.

The old adage of "one man, one vote, one time" also applies to China in Africa: one investment, one country, for all time. The Chinese mean to freeze us out from African resources as best they can and they have spent hundreds of billions of dollars in this effort. And Africa's resources, especially copper, rare earths, and cobalt, are essential to next-generation economic growth.

The Belt and Road Initiative, at least in Africa, is a transparent effort to gain the upper hand and assert dominion in Africa. There are few African countries that have not taken money and that are not in China's orbit.

Russia's role is smaller but no less malign. Whether or not Wagner still exists is beside the point. Russian mercenaries and Russian arms merchants are ubiquitous in Africa. Nor should it be acceptable to be on our opponent's payrolls. Neither China nor Russia has real private companies. Working for a Chinese or a Russian company means working for their governments.

We are not immune in the U.S. from the "Schroederization" of our elite. Many American businessmen, consultants, retired government officials and the like have taken Chinese and Russian money and have aided their efforts.

We also need to change the way our government and businesses work together abroad, especially in Africa. We are a private sector economy and are stronger for it. But in many places in Africa the investment risk is high enough that government support needs to be overt to convince American companies to invest. The argument that we can't pick winners among American companies should no longer be an excuse for inaction. Supporting American companies should be a task, if not the principal one, of American foreign policy.

The Development Finance Corporation is a good start to making that support more tangible, but it needs to be more active, to have fewer constraints on what it can support, and above all it needs to have more money. Its job should be to expand the reach and the influence of the American Government by expanding the reach and influence of American commerce. It should not make the perfect the enemy of the good.

The U.S. Government itself should be cautious about imposing its views on Africans. Supporting democracy and human rights has to be at the center of U.S. foreign policy but not at the expense of friendships, because friendship is the key to winning in Africa and everywhere else. Less finger-wagging and more listening. More recognition of the way the world is and less dreaming of the way we want it to be.

The U.S. is and always has been a better friend and a better ally than our rivals. At the end of the day, this is how we win. When an Indian company, for instance,

has its mine expropriated in Africa, our response should not be to ignore the situation or to blame the victim. It should be to help the company of a friendly country.

And when African countries find themselves in trouble, deep in debt, often as not the result of the corruption of previous regimes, we need to be more active in helping.

Chinese debt is still rising in Africa, even if investment itself is tailing off. The problem now and for decades to come is the vast sums owed and the interest rates that cause those sums to compound and continue rising with no real prospect that the debts can ever be repaid. And China doesn't forgive.

The IMF is a useful institution but using it to help countries meet their debt payments to China seems counterproductive. Wouldn't it be better to help African countries organize to negotiate as a group to press China for better terms, especially the forgiveness of some loans, at least those that can demonstrably be shown to be odious and the consequence of corruption?

The Global South, especially Africa, is rising in importance, its clout growing in a polarized world. A New York Times headline the other day said it all—by 2050 one in four people will be Africans. And their economies are also among the fastest growing. Africa's friendship matters.

PEPFAR was a great initiative twenty years ago; it saved millions of African lives. However, Africans tend to take it for granted now and are more impressed by China's infrastructure projects, however poorly built and misconceived. We can do better. My favorite proverb, Chinese ironically but taught to me by Africans, says that the best time to plant a tree was twenty years ago; the second-best time is today. Today is a good time to start fighting for Africa.

STATEMENT OF MILOS IVKOVIC

Congressman Smith, Senator Merkley, honorable members of the Commission, thank you for the invitation to appear before you today.

Critical minerals remain at the core of further technological advancement from vehicles to the defense industry, raising the issue of control over their extraction and application to the highest levels of national and corporate interest. Despite this unique value, we are faced with the paradox of almost no meaningful U.S. or Western corporate presence in the supply chain. Indeed, while the final products containing these minerals may be assembled in the markets of the U.S. or its allies, the critical areas of mineral extraction and refining remain far out of reach. Absolute power corrupts absolutely, as the saying goes, giving those who wield it impunity and influence beyond the scope of mineral production. While U.S. and European manufacturers may insist on implementing measures to ensure that every stage of production is free from intolerable human rights abuses, the reality of the monopolized supply chain, and the power behind it, makes it very difficult to actually achieve such an objective, at least not without concrete and aggressive action.

Understanding the Problem

The story of **cobalt** is an unfortunate example of *de facto* informed silence and continued inaction in response to the unfathomable devastation of the basic human rights of the most vulnerable. It has been fourteen years since the Department of Labor added cobalt mined in the DRC to its "List of Commodities Produced by Child or Forced Labor."¹ Since then, it is estimated that between 35,000² and 40,000³ children, some as young as 6⁴ to 9⁵ years old, have been continuously involved in diverse mining operations in the DRC. In addition to life-threatening hazardous con-

¹ See e.g. U.S. Department of Labor, "List of Goods Produced by Child Labor or Forced Labor" (2009); see also U.S. Department of Labor, "List of Goods Produced by Child Labor or Forced Labor" (2022), at p. 50.

² See e.g. U.S. Department of Labor, Bureau of International Labor Affairs, "2022 Findings on The Worst Forms of Child Labor, Congo, Democratic Republic of the" (2022), at p. 2; See also. Siddharth Kara, "Is your phone tainted by the misery of the 35,000 children in Congo's mines?" (2018) in *The Guardian*: <https://www.theguardian.com/global-development/2018/oct/12/phone-misery-children-congo-cobalt-mines-drc>.

³ See e.g. U.S. Department of Labor, "List of Goods Produced by Child Labor or Forced Labor" (2022), at p. 50; see also UNICEF, "Factsheet: enfants dans les mines" (2014) cited in Amnesty International, "THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt" (2016), at pp. 6, 28.

⁴ See e.g. U.S. Department of Labor, "List of Goods Produced by Child Labor or Forced Labor" (2022), at p. 50.

⁵ See e.g. Amnesty International, "THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt" (2016), at p. 29.

ditions,⁶ children are subjected to inhumane working hours,⁷ exposure to potentially toxic materials,⁸ physical abuse, and sexual exploitation.⁹ And yet, instead of receiving protection over the years, the DRC National Army itself was recently declared “complicit in the worst forms of child labor” as forced mining expanded to include other minerals such as gold, tin ore, tantalum ore, and tungsten ore.¹⁰ Transparency International’s Corruption Perceptions Index 2022 ranked the DRC among the 15 most corrupt nations worldwide,¹¹ with significant reports connecting corruption to the country’s mining sector.¹²

Unfortunately, these truly horrific practices are unlikely to change until and unless the incentives and impunity for wrongdoing are removed. Recognizing that the assumption of a simple solution does not do justice to the actual complexity of the matter, the remainder of the testimony seeks to address the various underlying causes of the crisis at hand, coupled with the powers available to the U.S. to counteract in line with its current policies.

The **upstream** segment of the cobalt supply chain generally includes mining, mineral trading, and subsequent processing in smelters or refineries. Two distinct sets of considerations can be observed in practice in the DRC:

Absolute poverty affects over 60 million Congolese who have to live on less than US\$2.15 a day.¹³ In addition, 33 million Congolese have limited or no access to drinking water, and 43% of children under the age of 5 across the country suffer from malnutrition.¹⁴ Free education remains largely unavailable.¹⁵ It is rather impossible to speak of free will in such a state of effective survival. Hence, the families become a target for exploitation or worse. Children who end up working in cobalt mines are paid as little as US\$1–2 per day by the traders.¹⁶ They may additionally be subjected to extortion by local law enforcement or security guards.¹⁷ Danger and objective exploitation notwithstanding, having no meaningful alternative leaves less than a choice but to comply at any personal cost. Put differently, the only source of income is participation in this circle of abuse.

⁶See e.g. OECD, “Interconnected supply chains: a comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo” (2019), at p. 36; Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 29 et seq.;

U.S. Department of Labor, Bureau of International Labor Affairs, “2022 Findings on the Worst Forms of Child Labor, Congo, Democratic Republic of the” (2022), at p. 2; U.S. Department of Labor, “List of Goods Produced by Child Labor or Forced Labor” (2022), at p. 51.

⁷See e.g. Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 29.

⁸See e.g. Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 30; see also Federal Ministry of Economic Cooperation and Development of Germany, “Child labour in the extractive sector” (2022).

⁹See e.g. U.S. Department of Labor, Bureau of International Labor Affairs, “2022 Findings on the Worst Forms of Child Labor, Congo, Democratic Republic of the” (2022), at p. 6; OECD, “Interconnected supply chains: a comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo” (2019), at p. 37; Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 30 et seq.

¹⁰See U.S. Department of Labor, Bureau of International Labor Affairs, “2022 Findings on the Worst Forms of Child Labor, Congo, Democratic Republic of the” (2022), at p. 1.

¹¹Transparency International, 2022 Corruption Perceptions Index, Democratic Republic of the Congo: <https://www.transparency.org/en/countries/democratic-republic-of-the-congo>.

¹²See e.g. The Sentry, “The Backchannel: State Capture and Bribery in Congo’s Deal of the Century” (2021).

¹³The World Bank in DRC, country overview: <https://www.worldbank.org/en/country/drc/overview>.

¹⁴UNICEF, “Water, sanitation and hygiene: Every child has a right to water, sanitation and a safe and clean community”: <https://www.unicef.org/drcongo/en/what-we-do/water-sanitation-and-hygiene>.

¹⁵See e.g. Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 31.

¹⁶See e.g. Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 31.

¹⁷See Bureau of International Labor Affairs, “2022 Findings on The Worst Forms of Child Labor, Congo, Democratic Republic of the” (2022), at p. 6; see also Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 30.

The other side of the same upstream coin is the demand. Over 70% of the world's supply of cobalt comes from the DRC.¹⁸ Between 20%¹⁹ and 30%²⁰ of those quantities may be traced back to artisan mines powered *inter alia* by child labor. Traders (commonly referred to as “buying houses”) purchase cobalt from children and then sell it to processing plants connected to collection ports. At these stages, it is often inevitable that illegally obtained cobalt will be mixed into the mass of exported minerals.²¹ In 2020, Chinese companies imported nearly 90% of their cobalt needs from the DRC.²² It is publicly known that at least eight of the fourteen largest cobalt mines in the DRC are controlled by Chinese companies, but the actual number is likely to be much higher. In addition, mainland China accounts for 80% of the world's cobalt refining capacity.²³

The **downstream** segment of the cobalt supply chain generally includes manufacturing activities—from components to lithium-ion batteries. In 2020 alone, 41% of all batteries containing cobalt were imported from China.²⁴ U.S. battery imports were even more significant, reaching 47% in the same calendar year.²⁵ **These figures suggest an absolute monopoly on what has become one of the most critical supply chains**, and may help explain why years of reporting on the link between the worst forms of child labor and the cobalt supply chain have regularly fallen on deaf ears.

Path Forward

Despite the challenges, progress has been made to address at least some of the supply chain issues, reducing the overall state of potential dependence. Since 2020, battery manufacturing activity has been aggressively attracted to the U.S. This is indeed a big step in the right direction. However, despite its obvious potential, it does not address the rest of the upstream issues, which necessarily remain tied to the DRC and wrongful practices in its mining sector.

From the corporate perspective, there have been public signals of willingness to act and remedy the situation for more than five years. However, the promises of change may have fallen desperately short of expectations. In 2017, Amnesty International concluded that the majority of downstream companies had taken minimal action to improve their due diligence on the issue of child labor involvement in their supply chains.²⁶ Just two years later, a report subsequently cited by the OECD found “low levels of due diligence disclosure, with none of the 42 companies examined having described the steps taken to manage risks or summarized their risk mitigation strategies related to child labor.”²⁷ Similarly, the German government reaffirmed in 2022 that up to 30% of cobalt in the DRC will continue to come from artisanal sources,²⁸ while in the same year the Department of Labor announced minimal progress in efforts to eliminate the worst forms of child labor in the DRC's extractive industries.²⁹

¹⁸ See e.g. U.S. Department of Labor, “List of Goods Produced by Child Labor or Forced Labor” (2022), at p. 51.

¹⁹ See e.g. Amnesty International, “THIS IS WHAT WE DIE FOR: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt” (2016), at p. 46.

²⁰ See e.g. Federal Ministry of Economic Cooperation and Development of Germany, “Child labour in the extractive sector” (2022).

²¹ See e.g. U.S. Department of Labor, “List of Goods Produced by Child Labor or Forced Labor” (2022), at p. 51.

²² See e.g. U.S. Department of Labor, “List of Goods Produced by Child Labor or Forced Labor” (2022), at p. 51.

²³ OECD, “Interconnected supply chains: a comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo” (2019), at p. 5.

²⁴ See e.g. U.S. Department of Labor, “List of Goods Produced by Child Labor or Forced Labor” (2022), at p. 51.

²⁵ See e.g. U.S. Department of Labor, “List of Goods Produced by Child Labor or Forced Labor” (2022), at p. 51.

²⁶ Amnesty International “Time to Recharge: Corporate Action and Inaction to Tackle Abuses in the Cobalt Supply Chain” (2017), cited in OECD, “Interconnected supply chains: a comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo” (2019), at p. 40.

²⁷ Bayer, C., and Cooper A., “Worst Forms of Child Labour in the Democratic Republic of the Congo: Cobalt Refiner Due Diligence Reporting” (2019) cited in OECD, “Interconnected supply chains: a comprehensive look at due diligence challenges and opportunities sourcing cobalt and copper from the Democratic Republic of the Congo” (2019), at p. 40.

²⁸ Federal Ministry of Economic Cooperation and Development of Germany, “Child labour in the extractive sector” (2022).

²⁹ U.S. Department of Labor, Bureau of International Labor Affairs, “2022 Findings on the Worst Forms of Child Labor, Congo, Democratic Republic of the” (2022), at p. 1.

According to recent estimates, demand for cobalt is expected to quadruple by 2030 as compared to 2019.³⁰ As demand for cobalt increases so does, unfortunately, the risk of child labor in mining. Considering this, it may be critical to examine what powers the U.S. and its companies have under these circumstances to further address practices that so flagrantly violate fundamental rights and freedoms.

While **corporate pressure** is theoretically possible, it requires a high degree of market dominance or importance, which can then be translated into pressure on upstream actors to aggressively address child labor in the cobalt supply chain. Intel's success in ensuring a conflict-free supply chain in the microprocessor industry³¹ is an example of a successful outcome. Nevertheless, the argument that Western companies themselves currently have the power or incentive to force Chinese-backed counterparts to comply with international standards is a difficult one to make.

As noted above, Chinese companies control almost all the mines and refineries needed to produce batteries. In addition, China is expected to remain the world's largest EV market in the short term, with a market share of up to 45%.³² Finally, current projections suggest that Chinese EV manufacturers will gain over 20% of global market share by 2030.³³

Another commercial reality is that the current supply chain is affordable, and any readjustment could well lead to higher costs and negatively affect the prices of final products. Therefore, in the absence of **positive incentives** such as non-market interventions and direct governmental support, Western companies may have little motive to enter additional segments, such as refining or mining, themselves. An example of a legislative initiative that recognizes some objective commercial barriers to change may be the "Cobalt Optimizes Batteries and Leading Technologies Act of 2022," which provides for the development of cobalt refining capacity in the U.S., with potential funding from the Defense Production Act. However, further cooperation with industry leaders from the U.S. and allied countries is likely required, since without their participation the risk of negative dependency is unlikely to be resolved.

Notwithstanding potentially supportive U.S. actions, as long as crimes go unpunished and actors responsible for the worst forms of child labor enjoy effective impunity, it is difficult to expect rapid and meaningful change in practices on the ground in the DRC. Careful consideration of **tangible consequences** for unlawful actions may therefore be required. Three types of measures are arguably available to the U.S. authorities assuming the facts as stated:

A potential action affecting all market participants, without legal effect on their individual ability to operate generally as commercial entities and without regard to their actual involvement in any proven illegal practices, is a **temporary suspension** of international trade in or imports of cobalt into the U.S.—to the extent that there is a risk of importation of cobalt or cobalt-containing products sourced through child labor. The positive potential effects of such an approach are that the U.S., by virtue of its market position, can exert far more dominant pressure than commercial actors acting independently, and thus influence the triggering of remedial market practices. It should be noted, however, that an absolute ban on imports may have negative short-term effects on the U.S. market—an issue that can perhaps be addressed through licensing and due diligence requirements overseen by the authorities. In this regard, the draft legislation "Countering China's Exploitation of Strategic Minerals and Child Labor in the Democratic Republic of the Congo Act" may be of interest for further discussion. Similarly, it may be possible to consider amending the conflict minerals list in Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act to include cobalt and child labor.

Secondly, the sheer scale of uninterrupted violations of fundamental human rights for more than a decade, and potentially lethal nature of the worst forms of child labor in the DRC, continue to provide sufficient basis under both domestic and international law for the U.S. and its allies to impose **sanctions** on states, companies, and individuals found to be engaged in these activities. The U.S. has already taken significant steps in this regard. However, it is important to understand the

³⁰World Economic Forum, "A Vision for a Sustainable Battery Value Chain in 2030: Unlocking the Full Potential to Power Sustainable Development and Climate Change Mitigation" (2019), at p. 16.

³¹See e.g. Intel's Efforts to Achieve a "Conflict Free" Supply Chain: <https://www.sec.gov/comments/s7-40-10/s74010-419.pdf>.

³²See e.g. Sheila Chiang, "Automakers promote advanced tech to compete in China—the world's top EV market" (2023), CNBC: <https://www.cnbc.com/2023/08/04/ev-makers-promote-advanced-tech-to-compete-in-china.html#>.

³³See e.g. Simon Evans, "Carmakers to lose 20pc of share to Chinese electric vehicles" (2023), The Australian Financial Review: <https://www.afr.com/companies/transport/carmakers-to-lose-20pc-of-share-to-chinese-electric-vehicles-20230904-p5e1v2>.

nature of sanctions in order to appreciate their limited power: sanctions are neither permanent nor punitive measures under international law; their sole purpose is to correct and halt an unlawful act pending a future resolution. Once the wrongful conduct ceases, the legal basis for sanctions disappears, leaving many directly responsible free of any responsibility.

Therefore, **criminal investigations** may be initiated, at least with respect to the organizers and those directly responsible for promoting the worst forms of child labor in the extractive industries of the DRC. In this regard, like many of my colleagues, I believe that child labor in hazardous conditions constitutes a violation of peremptory norms of international law prohibiting slavery. Peremptory norms (lat. *jus cogens*) are those norms of international law from which no country may derogate to any degree. In addition, “inhumane acts [. . .] intentionally causing great suffering, or serious injury to body or to mental or physical health” can rise to the level of crimes against humanity if they are “widespread” or “systematic”, and “directed against a civilian population.”³⁴ In the present case, the Bureau of International Labor Affairs explicitly declared the armed forces of the DRC to be “complicit in the worst forms of child labor.”³⁵ Thus, the U.S. and the international community in general would arguably have a **legal obligation to act** to protect against acts analogous to slavery and potential crimes against humanity. In any event, international law permits the initiation of national proceedings, especially when there is a nexus between the violations mentioned and another territory that receives the proceeds of such violations.

Finally, the local Congolese population should be given alternatives to forced mining. Let there be no doubt: Artisanal mining cannot be made safer or more humane. Without tangible investment, whether through meaningful social initiative projects by companies present in the country or USAID initiatives, they may be left with a bitter end without any source of income.

Concluding Remarks

As someone who has personally seen this suffering, as a father whose young children, if born in the DRC, could have ended up in the same cycle of abuse, and as a true believer in the rule of law, I ask you to consider a series of actions that can put an end to the worst forms of child labor in the DRC’s extractive industries. I also take a moment to note that the U.S. Congress and the U.S. Administration are truly the last human hope for millions of people in this region.

This testimony is an independent expert opinion provided at the request of the U.S. Congress and does not necessarily represent the views or opinions of Washington University School of Law or any other third party, court, or institution.

³⁴Rome Statute of the International Criminal Court, Article 7.

³⁵See U.S. Department of Labor, Bureau of International Labor Affairs, “2022 Findings on the Worst Forms of Child Labor, Congo, Democratic Republic of the” (2022), at p. 1.

STATEMENT OF JOSEPH MULALA NGURAMO

Thank you, Chairman Smith and Co-chairman Senator Merkley, and thank you to all the distinguished members of the Congressional-Executive Commission on China for what you are doing, and especially for holding this hearing at a time when a lot is going on around the world, leaving many people worried about tomorrow and the future. From the ongoing illegal and unjustified Russian war of aggression against Ukraine, which has affected the entire world by exporting global inflation and exacerbating food insecurity throughout Africa, to the crisis in the Middle East and rising tension in the African Great Lakes region which has displaced millions of people and left them in grave and urgent need of humanitarian assistance—I appreciate your leadership and attention to these issues. Thank you very much.

Before I move to the main points of my remarks, I would like to quickly mention that almost 8 years ago, I graduated from the United States Military Academy at West Point. I was in the class of 2014. The Forever One Team was the motto of my class. Appointment to the Academy was the greatest honor of my life. I would like to take this opportunity to express the depths of my profound gratitude to this great country, to Members of Congress, and to the American people for having given me such an opportunity. Thank you!

While at the Academy, I had the opportunity to meet and get to know some of the finest young men and women this country has to offer. Some of them have become dear friends and like family to me. I do my best to keep up with them—hearing about their daily lives and the progress they are making in achieving the American dream—no matter where they are serving around the world. And I am always inspired by their selfless service and commitment to Duty, Honor and Country. Like all men and women in uniform, I am always inspired by their sacrifice to serve a noble cause greater than themselves—defending our collective freedom and the preservation of democracy around the world. I have no doubt that, regardless of current challenges and turbulence, whether at home or abroad, the future of this great nation will be in good hands. I am very proud to call them my classmates and dear friends. Thank you.

I am truly honored and humbled to be here and happy to share with you my modest understanding of the issues we are discussing today; and hopefully, together we can find sustainable solutions on how to effectively address these problems and try to leave this world a bit better place for all. I am optimistic that, working together, everything is possible and we can do it.

These are just my independent views—observing a situation that is becoming more and more alarming and concerning. As a member of the African diaspora and working with the Atlantic Council on the future of U.S.-China and -Africa relations in this new area of great-power competition, I follow these issues closely. The situation is close to my heart—I have reached out and assisted in some special cases, where we try to find ways to send kids to school so that they don't find themselves abused and in these inhumane conditions.

I rarely speak in public. However, at some point, the voices and messages describing horrific human conditions in which kids and women are working in DRC mining, will not let anyone in good conscience remain indifferent. As a society and humanity, we have a moral and ethical obligation to denounce and act. All actors involved who can do something positive about this, especially public and private partnerships, should pay attention. History will hold us accountable.

I don't know everything. As a matter of fact, I am still learning every day and getting educated about these issues. My testimony will primarily focus on the humanitarian and political problems of the PRC's mining practices from a Congolese perspective, including corruption and forced and child labor and how we can address it.

Historical Perspective

Almost 180 years ago, in the mid-19th century, the rubber tire was invented. Sadly, this apparent progress for humanity and our civilization came at a heavy cost of human exploitation—because to support the boom and demand created by the bicycle and automobile industry at the turn of the 20th century, the world had to increase the production of rubber that was only coming from the Belgian Congo at the time. It was called Congo Free State then. Our ancestors in Congo carried the scars of this burden and the consequences can still be felt today. However, with public campaigns, especially from independent journalists/writers, such as Joseph Conrad, missionaries, and others—writing the true stories of what was happening—eventually this tragedy ended and led to Congo independence in 1960. I will not have time to get further into detail, but if interested and you have time, I rec-

commend the book, “King Leopold’s Ghost” by Adam Hochschild to grasp the magnitude of this tragedy.¹

The progress of civilization shouldn’t come at the expense of human exploitation. It is possible to ensure our prosperity while concurrently defending and protecting human dignity and freedom. Today, with the green power revolution, to meet the demand of battery production to save the planet from climate change, the similarities are striking. History should not be repeating itself here. We have sufficient data, information, and policy tools to change the course of history by acting and avoiding past mistakes. It will take leadership. I am optimistic that with these kinds of public hearings, we will raise global awareness on these issues and put an end to these shameful practices that don’t honor our society. And I believe education is a key part of the solution. I will talk more about that in my conclusion.

The Problem

What is happening in the DRC, in this 21st century, as relates to child labor and humanitarian catastrophe, is dehumanizing and unacceptable. No one’s child, mother, brother, sister, or father should ever work, or be, in such conditions. It offends human dignity, honor, and conscience.

Reports and images of children under 10 years old carrying 20kg to 60kg bags full of sand—containing cobalt and copper, shipped to China for refining; and then fed into the critical minerals supply chain to power the global energy transition from fossil fuel to clean energy, are unacceptable, morally offensive, and shocking. Despite reforms, a well-documented Washington Post article provides details of shortcomings in addressing these issues of child labor and human rights violations at a severe human cost.²

Over 40,000 children are reported to work in these mines, mostly owned by Chinese companies (15 out of 19 companies operating in Katanga, for example). Seventy percent of the cobalt supplied to the world comes from the DRC, 30% of which is from artisanal mining, where the most egregious human rights violations occur because of a lack of transparency, accountability, and rampant corruption. Picking up rocks with bare hands, without shoes, without medical insurance and adequate protective gear leaves miners exposed to contamination. Tunnels and mines collapse, often leading to death. And these children are not even paid. They are basically being exploited and abused. A typical person working in these mines is barely making \$250 a month, despite all the hard work, according to an authoritative Amnesty International 2016 report.³ Various U.S. Government agencies/departments such as the Departments of State and Labor, and EU and UN reports, have substantiated these allegations.⁴

Next to the humanitarian cost is the environmental degradation that is affecting the health of the population living in the vicinity. Cases of people suffering from cancer, lung disease and DNA modification because of exposure to toxic chemicals and waste dumped by mining operations are poignant. Credible scientific reports have shown that this waste has severe consequences for the local population and the environment and yet no one is held accountable. A recent book, “Cobalt Red: How the Blood of the Congo Powers Our Lives” by Siddharth Kara, provides the most coherent and comprehensive understanding and analysis, both in scale and scope, of this humanitarian tragedy.⁵

Why is this problem persisting?

Extreme poverty, rampant corruption, the lack of quality governance, lack of the rule of law, the lack of access to credible information and the lack of access to quality education of the local population are the underlying causes of this humanitarian

¹Adam Hochschild *King Leopold’s Ghost: A Story of Greed, Terror, and Heroism in Colonial Africa*, October 1, 1999.

²Despite reforms, mining for EV metals in Congo exacts steep cost on workers. After revelations of child labor and treacherous conditions in many cobalt mines, automakers and mineral companies said they would adhere to international safety standards: <https://www.washingtonpost.com/world/interactive/2023/ev-cobalt-mines-congo/>. August 4, 2023.

³Democratic Republic of Congo: “This is what we die for: Human rights abuses in the Democratic Republic of the Congo power the global trade in cobalt,” <https://www.amnesty.org/en/documents/afr62/3183/2016/en/>, January 2016.

⁴Minimal Advancement—Efforts Made but Regression in Practice that Delayed Advancement, <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/congo-democratic-republic-drc,2022>.

⁵Siddharth Kara, *Cobalt Red: How the Blood of the Congo Powers Our Lives*, 2023.

tragedy.⁶ And China simply took advantage of the situation. The complicity between DRC government officials and private sector companies is, unfortunately, fueling and perpetuating this problem. Sadly, the current DRC regime has miserably failed to address these issues, especially fighting corruption. Its promises to revise the 2008 Chinese mining contracts have barely brought concrete results.⁷

What can be done?

We should work on reducing Chinese dominance in the DRC mining sector, while mitigating the global reliance on the Belt & Road Initiative by de-risking and diversifying our supply chain. Particularly, we must address the issues of child labor and corruption, as proposed by Congressman Smith in the bill to ban certain goods made with child labor or forced labor in the Democratic Republic of Congo—to NOT allow them to enter the United States, Mexico, and Canada markets.⁸

The primary goal should aim at a nation-building approach by enabling the DRC to power the global green revolution to fight climate change. Look for inspiration to South Korea (electronics), Finland (mobile phones), and Latvia (cyber security).

Secondary goals should aim at:

- Establishing the DRC as a global hub for electronics manufacturing by maximizing the country's abundant natural and human workforce resources (including low wages), access to global trade routes, a geographic location at the center of Africa, and so forth. For example, the U.S.-DRC-Zambia MOU to build the EV battery chain is a good initiative. The Lobito Corridor project that will connect Zambia, DRC, and Angola all the way to the Atlantic coast will further reinforce the policy of de-risking and diversification.
- Providing the Western and U.S. markets with an alternative to China through the advancement and aggressive implementation and expansion of the African Growth Opportunity Act (AGOA), U.S. International Development Finance Corporation (USIDFC), and Prosper Africa programs. Additionally, we should support the ratification of the African Continental Free Trade Agreement (AfCFTA) so that the African Continental Free Trade Area is free and independent from China influence.
- Furthering brand awareness of Congo cobalt and the life-saving impact it can have on local communities when properly managed, coupled with an aggressive campaign to illustrate the wastefulness of shipping earth to China for processing and the polluting effects of said trade on the world environment.
- Providing DRC/Artisanal Small-Scale Mining with the tools (both electronic and physical) to ensure fair and adequate compensation for their product in line with international market conditions.
- Ensuring the continued use of cobalt in electronics through rapid enforcement of existing laws to discourage further funding of alternative stabilizing materials for use in battery manufacturing.

What should Made in Congo stand for?

- Leader in conflict-free, certifiably traceable “ingredients” on the box.
- Highest quality standards ensured—this needs to be enforced from the start. The popular perception of Made in Congo products must be reversed.
- Products that power the green revolution worldwide.
- Secure because traceable—marketing to national grids and others. MUST cultivate a reputation for not cutting corners or forging documents/ingredient lists.

Conclusion and Recommendations

Concurrent with the enforcement of due diligence and compliance with laws and regulations, from the source of extraction of natural resources, to refineries to ensure a clean supply chain, there are already plenty of good ideas, as mentioned above, on how we could address these issues of child labor and corruption. It will

⁶Minimal Advancement—Efforts Made but Regression in Practice that Delayed Advancement, <https://www.dol.gov/agencies/ilab/resources/reports/child-labor/congo-democratic-republic-drc>, 2022.

⁷DRC demands \$17bn for infrastructure from China, <https://www.globalconstructionreview.com/drc-demands-17bn-for-infrastructure-from-china/>, February 17, 2023.

⁸Smith introduces bill to bar all imports that contain cobalt mined by child exploitation and forced labor trafficking in the Democratic Republic of Congo, <https://chrissmith.house.gov/news/documentsingle.aspx?DocumentID=411555>, June 30, 2023.

just take the political will and leadership. But here are a few concrete solutions I would like to share with you:

1. *Continue raising awareness.* We must stay engaged and keep shining a spotlight on these issues. We shouldn't shy away from them because of the complexity of the situation. It is a human tragedy and as a society we have a moral obligation to intervene and stop this. Let's not be naive. Talking about this will not solve the problem. But the fact that the world can talk about this, and the more people are well informed and become aware of this tragedy—let's be optimistic that solutions will be found, and these children will go back to school, where they belong in the first place, and get an education to have a better future. And hopefully, China will pay appropriate attention and play a positive role to alter these conditions.

2. *Strengthening, reinforcing, and improving the Public-Private Partnership.* Governments across the board, working with Big Tech companies and even development/financial institutions with direct impact and influence in the market, should use all the leverage, incentives, and tools possible to ensure a clean supply chain not tainted with child labor, corruption, and human rights abuse. For example, the EU Global Gateway, the Minerals Security Partnership and the Partnership on Global Infrastructure and Initiative are ways to start. The more the U.S.A. and allies are less dependent on Chinese supply chains by applying the policy of de-risking and diversification, the more likely that global consumers, mainly the U.S. market, will not import semiconductors, phones, computers, etc., from China. The lack of access to EU and U.S.A. markets will significantly impact the profitability of these businesses. The Uyghur Forced Labor Prevention Act and the DHS/Forced Labor Enforcement Task Force are good examples of this approach. The U.S.A. and its allies should do the same as relates to child labor in DRC mining. And apply targeted sanctions accordingly.

3. *Engaging China.* In our strategic engagement with China about global issues of mutual interest—mainly China here, because Chinese companies are the main buyers of DRC minerals (over 70%) and have the great majority of refineries in the world (about 60 to 90%)⁹—we should be talking to Chinese officials and their private sector companies to, frankly, investigate these issues and do everything they can to help address them. I would like to think that China will understand, especially if it wants to be perceived as a responsible global power. Failure to do that, continuing this exploitation, while robbing these children of their futures, will tarnish China's reputation and will not be good in the long term. China should see this as its own problem and pressure the DRC government and its private companies to comply with due diligence in making sure that its supply chain is clean of child labor and human rights abuses.

4. *Emphasizing the responsibility of the DRCG itself.* This is not often invoked; however, the DRC government must take responsibility by making sure laws are fully enforced and that those trespassing those laws are punished and sanctioned. The DRCG should carry out the heavy lifting by taking ownership and leadership to fix this problem. The U.S.A. and private sector companies' involvement can act in a supportive capacity to help the DRCG in this endeavor; however, this issue is fundamentally the responsibility of the DRCG. The DRCG must make sure that the rule of law and quality governance are enforced and prevail, without which it will be difficult for external actors to try to assist. DRCG officials implicated in collusion with these practices of corruption must be prosecuted and held accountable.

5. *Supporting and protecting independent and credible reports, research, and whistleblowers.* We should keep working and supporting independent and credible civil society movements that can report on these issues with credibility. In this era of disinformation and fake news, we need access to factual, credible, and reliable data, information, and intelligence to make the right decisions while at the same time providing the necessary resources to appropriate organizations doing this kind of work.

6. *Defending, reinforcing, and promoting democracy, the rule of law and quality governance.* Upcoming DRC elections are an opportunity to ensure the legitimacy of institutions without which instability, poor governance, and lack of rule of law persist and perpetuate these problems. Let's make sure that upcoming Congo elections

⁹How to Break China's Hold on Batteries and Critical Minerals: The Security of Clean Energy Is Easier to Manage than the Security of Oil, <https://foreignpolicy.com/2023/10/04/ev-electric-china-us-batteries-critical-minerals-energy-oil-renewable/#:text=Today%20China%20performs%20around%2060%20percent%20to%2090%20percent%20of%20the%20the%20processing%20of%20most%20minerals.> October 4, 2023.

are credible and transparent. May the best of all win the election and let's let the will of the people prevail (*Vox Populi, Vox Dei*). A strong, dynamic, resilient, and thriving democracy in the DRC is in our national security interests. It will be a boost for the entire region for decades to come and have ripple effects across Africa. In that regard, I sincerely hope that the BRIDGE to DRC Act bill will become law and become official U.S. policy and strategy toward the DRC and the region.¹⁰

7. *Lastly, investing heavily in education.* As Nelson Mandela once remarked, "Education is the most powerful tool to change the world." At the end of the day, education, education, and education is key, if we are to help these children escape these conditions (against their will) and escape poverty, the main cause of why they are there. We should make sure that they have access to quality education and not be caught between the global race to energy transition and global power competition. No parent wants to see their kids in these conditions. Every parent's hope is that their children have access to a good education and have a better future. When looking in the eyes of these children—and by the way, seeing myself not far or different from them, I feel they deserve better, and we should help them. We should build more schools and libraries for these children so they can grow up and be well-informed and educated citizens that the world can count on and rely on to solve its 21st century challenges.

Thank you for having me and I'm looking forward to your questions.

STATEMENT OF NICOLAS NIARCHOS

Chairman Smith, Chairman Merkley, and all other members of the Commission, thank you for inviting me to speak. I am here to testify about the environmental impact of copper-cobalt mining in the southern Democratic Republic of Congo. I visited the DRC six times between 2019 and 2022 reporting for the *New Yorker*, the *Nation* and *Interlope* magazines. On each of these trips, and on trips I have made for an upcoming book, I have seen the intense environmental degradation and deleterious effects of the practice on the health of the local population.

Copper and cobalt are two key materials for the creation of lithium-ion batteries, electric devices and especially for the electrification of transport, which is an important factor in the reduction of fossil fuel emissions and the slowing of climate change. It is also an important economic factor—strategic firms like Tesla use lithium-ion batteries in their products. Around 70% of the global cobalt supply comes from the DRC. A 2021 report by the World Bank estimated that we will need three billion tons or more of metals to achieve a "below 2 degrees future."

But the question we must ask ourselves is whether the harm done by the extraction of these metals—and indeed the fossil fuels expended in their mining, transport, processing and so on—does not outweigh the benefit. Is the juice worth the squeeze?

Too often have natural environments been destroyed in the name of progress, and too often have the lives of people far from the cities in which minerals are consumed been destroyed. The local population does not benefit and are left with little more than holes in the ground. There is even a term for these places, often unspoiled habitats that are carved up when a mineral is found under their soil. They are known as "sacrifice zones."

In reporting for the *New Yorker* and the *Nation*, I have seen how landscapes have been destroyed, water polluted, and air filled with dust and carbon as mining companies rush to extract minerals like copper, cobalt, lithium, and phosphates. Oftentimes, human rights abuses go hand-in-glove with these environmental catastrophes. In Congo, the miombo forests of the southern savanna have been cut back and the land looks as if it has been bombed; in Indonesia, the lust for battery nickel is responsible for seas pumped with chemicals and air clogged with coal; in the Western Sahara, where Morocco extracts phosphate, activists are regularly attacked by the security services—there, the Korean company LG and the Chinese company Huayou have formed a joint venture to produce lithium iron phosphate batteries. I could go on and on.

But I have also seen that there are ways to mine responsibly, ways in which mining can be done in what is known as a "closed loop." I have seen how this is possible in the U.S., in Idaho. Even in Congo, some of the mines, and especially the giant

¹⁰ Representative John James (MI-10) introduced the Building Relationships and Increasing Democratic Governance through Engagement (BRIDGE) to DRC Act in the U.S. House of Representatives. The bill aims to create a U.S. National Strategy to secure United States supply chains involving critical minerals sourced from the Democratic Republic of Congo (DRC): <https://james.house.gov/media/press-releases/rep-james-introduces-bridge-drc-act>. July 2023.

Kamoto Copper Company mine near the town of Kolwezi, which I toured last year, have implemented environmental protocols aimed at ameliorating and moderating the environmental impact of mining.

Sadly, these examples are exceptions to the rule, and an environmental catastrophe is underway in southern DRC. The rush to produce devices, batteries, and electric products more cheaply has created a demand for metals that has led to more and more unscrupulous behavior. Chinese firms and traders are at the forefront of these practices. There is a saying in Congo: “If they don’t give their workers shoes in their own country, why would they give us shoes here?”

In Congo, there are two types of mine, although there are gradations between these two. There are industrial mines, which use modern and mechanized methods. They are responsible for the majority of the cobalt that comes out of Congo. The industrial mines I have been allowed to visit have emphasized their environmental mitigation efforts.

However, I was not permitted to visit the giant Tenke-Fungurume mine, located between the towns of Likasi and Kolwezi and operated by the giant Chinese firm CMOG. Other journalists have been subject to harassment visiting the Tenke-Fungurume site. I visited an adjacent site where small-scale miners showed me polluted rivers in which women washed clothes and minerals.

The second type of mine in Congo is the artisanal mine. The world is home to some 45 million “artisanal miners”—people who mine for themselves or small cooperatives. Congo’s copper-and-cobalt belt is home to some 200,000 of these miners who sell the ore they collect to “depots,” or “maisons” as they are known.

Before sale at these depots but in some cases after, the ore is crudely processed by washing it in local water supplies. Studies show that fish in rivers in the mining provinces have been contaminated with heavy metals and uranium. At the village of Samukinda, I saw how cobalt washing, as well as effluent from a factory processing cobalt and copper, had destroyed fields. The chief of the village, Rikomeno Samukinda, explained that they could no longer grow food there and more and more of the villagers had to take risky mining jobs in order to provide for their families. His associates showed me water coming from a pipe from the facility that had a mild greenish color, and also said they had seen the dumping of residue from pressure acid leaching of cobalt, a process to convert heterogenite ore to cobalt hydroxide that uses chemicals like sulfuric acid.

In southern Congo, women wash raw mining material, which is often full of toxic metals and, in some cases, mildly radioactive. Stories abound of artisanal miners in the town of Likasi dying from radiation poisoning. Congo’s government has sealed off the Tshinkolobwe mine, where the uranium for the Hiroshima bomb came from, but miners are working nearby in barely protected conditions. If a pregnant woman works with such heavy metals as cobalt, it can increase her chances of having a stillbirth or a child with birth defects.

According to a recent study in *The Lancet*, women in southern Congo “had metal concentrations that are among the highest ever reported for pregnant women.” The study also found a strong link between fathers who worked with mining chemicals and fetal abnormalities in their children, noting that “paternal occupational mining exposure was the factor most strongly associated with birth defects.”

Furthermore, children as young as 3 mine and handle the toxic ore. They are sometimes drugged and deprived of food. These factors all contribute to developmental disorders and reduce life expectancy in the mining regions of Congo.

In March 2022, I spent a day with Dr. Billy Mukong, a local physician in the mining town of Kolwezi. As Dr. Mukong did his rounds, he introduced me to women whose children were born with defects. Some had swollen heads. Some were developmentally disabled. The defects, he said, were thanks to exposure to dust that is blown off the back of trucks carrying raw and processed ore around Kolwezi. (It is worth noting here that some of the women we met said they ate soil during pregnancy as a part of a traditional remedy, which Mukong said would also increase their likelihood of exposure to heavy metals poisoning.) Over and again, I saw women and men with blistered arms from exposure to toxic chemicals.

The depots where the ore is collected are often run by foreign traders. Many are Chinese, Lebanese, and Indian nationals who have settled in the region. Some of the depots are owned by or supply larger depots owned by international companies. The most prominent of these is Congo Dongfang Mining, or CDM.

CDM is a subsidiary of Huayou, a China-based company that has supplied cobalt to firms like Apple and Samsung. CDM has said they have made efforts to clean up their supply chain and to ensure that children, for example, are not mining cobalt. But last year I travelled from an illegal artisanal site outside the town of Fungurume with a local dealer in copper and cobalt ore who pointed out to me

where he sold his product. The site was owned by CDM, who could not possibly have controlled how the ore was mined or who mined it.

When cobalt is collected, it is processed into hydroxide. This is often done inside the DRC, but sometimes the unprocessed product is shipped out on flatbed trucks. At the Kasumbalesa border post, trucks idle for days until they are allowed out of the country. People in the towns around complain of asthma caused by the fumes.

At processing facilities in China and Korea, this material can be mixed with industrial product before it becomes the battery cathodes that we use in electric vehicles and also in everyday appliances like laptops and cellphones. More needs to be done to trace this supply chain and ensure the rights of the people at the very bottom of it.

We must also not forget the very real human rights abuses that attend the extraction of battery metals in the DRC. Children are brutalized, women are violated, and men are subjected to wage slavery. Abuses of human rights happen at the bottom of the supply chain, but also to people who are trying to clarify what is happening in the supply chain.

In my own work, I was disappeared and detained for six days by the Democratic Republic of Congo's government as I tried to shed light on some of the abuses I document above, as well as clarify the links between armed groups and the mines. I would like to take this opportunity to thank the members of this commission and others in the U.S. Government who helped secure my release. Some Congolese journalists are not so lucky: the journalist Stanis Bujakera Tshiamala languishes in jail for a report that he reportedly did not even write. More must be done to promote transparency and thorough reporting on the supply chain, which firms and governments would rather keep secret. (I have been detained twice reporting on issues around these minerals, and I was not issued a visa to report on a lithium-ion battery conference in China this summer.)

I would like to close with a thought or two about solutions. The simple interdiction of Congolese cobalt is not enough. Such a ban would have a very damaging effect on the poorest people in that nation. It also wouldn't stop artisanal mining: copper is prevalent in most of the ore in Congo, and miners will sell the ore for copper just as soon as they would for cobalt. In the east of the DRC, we have seen how bans on tantalum and tin ore have contributed to criminality instead of curbing it, so new solutions must be envisaged there. They have also empowered unscrupulous traders who deal in falsified tags. Let's not make the same mistake again.

The consuming countries need to provide real solutions to address the lack of work in places like the DRC, to provide alternatives to artisanal mining, or at least to make it safer and cleaner. Countries like the U.S. need to insist on environmental protection, and on recycling to recover critical metals from used devices.

We also need to ensure that democracy and the rule of law are upheld. As Congo moves toward its elections this December, I believe the United States should insist on a free and a fair voting process as the bedrock of any state of law. This will be key in regulating this industry and making sure that value can be shared with some of the poorest people in the world.

STATEMENT OF HON. CHRIS SMITH

This Commission knows all too well about the Chinese government's egregious human rights abuses, blatant disregard for international law, and its ever-expanding authoritarian influence beyond its own borders.

This influence is pervasive—felt in board rooms and C-suites, in supply chains and on assembly lines, in classrooms and textbooks, in cities in our own country, and in other countries as well.

Today's hearing will highlight China's malign influence in Africa, specifically in the cobalt mining industry of the Democratic Republic of Congo (DRC).

China's repressive long arm is ubiquitous in the DRC. Located in central Africa, the DRC is massive and blessed with natural resources, including metals and minerals. It is a country that has been brutally pillaged throughout history—fueled by corrupt men's unquenchable thirst for power, riches, land, rubber, copper, palm oil, and now, cobalt—all at the expense of innocent men, women, and children.

The DRC is home to more than 70% of the world's cobalt, an essential metal for lithium-ion batteries, powering our smartphones, laptops, computers, and electric vehicles¹—lest we forget our complicity through the use of cobalt in our everyday lives.

¹John Campbell, "Why Cobalt Mining in the DRC Needs Urgent Attention," *Council on Foreign Relations*, Oct. 29, 2020.

Siddharth Kara's book, "Cobalt Red: How the Blood of the Congo Powers Our Lives," vividly describes the tragic realities of this industry that has all too willingly turned a blind eye to human dignity. "There is no such thing as a clean supply chain of cobalt from the Congo,"² says Kara.

Kara writes in the book: "... stakeholders have formulated international coalitions to help ensure that their supply chains are clean. The two leading coalitions are the Responsible Minerals Initiative (RMI) and the Global Battery Alliance (GBA). ... The GBA has developed a Cobalt Action Partnership to 'immediately and urgently eliminate child and forced labor from the cobalt value chain.'"³ Kara, however, goes on to write: "In all my time in the Congo, I never saw or heard of any activities linked to either of these coalitions."⁴

To this day, child and forced Congolese laborers toil in hazardous conditions to extract cobalt from unsafe mines, including artisanal mines in the DRC. Hastily dug artisanal mines are always subject to collapsing—and many have indeed collapsed, crushing, amputating limbs, and killing miners, including children.

It's impossible to escape the disastrous environmental impact of cobalt mining in these communities—as the very air they breathe and the water they drink are contaminated by toxic chemicals, dirt, and sediment. The biggest beneficiaries of this cobalt continue to remain silent and refuse to face this uncomfortable truth: From dirt to battery, from cobalt to cars, the entire system is fueled by violence, cruelty, and corruption.

"Therein lies the great tragedy of the Congo's mining provinces," says Kara, "no one up the chain considers themselves responsible for the artisanal miners, even though they all profit from them."⁵

China has gained almost full dominance of every single step of the cobalt supply chain. Money talks and human rights go right out the window. Corrupt government officials in the DRC sign billion-dollar deals with China and pocket the money for themselves. Major companies—both Chinese and Western—close their eyes.

Over a year ago—on July 14, 2022—I chaired a hearing of the Tom Lantos Human Rights Commission entitled "Child Labor and Human Rights Violations in the Mining Industry of the Democratic Republic of Congo." One of our expert witnesses, attorney Hervé Diakiese Kyungu, testified:

"Child labour is one of the worst forms of abuse. It is forbidden by both Congolese legislation as well as international rules and norms.

"In the mining industry in my country, the Democratic Republic of Congo, children are often exposed to radioactive minerals, injuries, deadly and painful diseases.

"For example, with respect to the extraction of cobalt in artisanal mines within Lualaba province, children are routinely used as part of the workforce. They are unremunerated and exploited and the work is often fatal as these children are required to crawl into small holes dug in the earth to recover sacks of ore containing rich grades of heterogenite which is almost 60% cobalt.

"These children are not going to school; their health is exposed as they are living in precarious conditions."

Another witness at that hearing—also from the DRC, was Father Rigobert Minani Bihuzo, a Congolese Jesuit priest and head of the Research, Peace, Human Rights, Democracy and Good Governance Department at the Research Center for Social Action for the DRC.

He pointed out that their report noted that "artisanal miners are not provided with any protective equipment. They work 7 days a week and more than 12 hours a day. In reality, their working hours are not defined. It includes weekends and holidays. They are exposed to radiation from the products they use and to the danger of the explosives they use."

The United States has been asleep at the wheel for far too long and China has taken advantage of that. We need to provide alternative options—options that champion transparency, human rights, peace, and prosperity for all.

² Siddharth Kara, *Cobalt Red: How the Blood of the Congo Powers Our Lives*, (New York, NY; St. Martin's Publishing Group, 2023), 17.

³ Siddharth Kara, *Cobalt Red: How the Blood of the Congo Powers Our Lives*, (New York, NY; St. Martin's Publishing Group, 2023), 4–5.

⁴ Siddharth Kara, *Cobalt Red: How the Blood of the Congo Powers Our Lives*, (New York, NY; St. Martin's Publishing Group, 2023), 5.

⁵ Siddharth Kara, *Cobalt Red: How the Blood of the Congo Powers Our Lives*, (New York, NY; St. Martin's Publishing Group, 2023), 65.

This week I will be introducing legislation to ensure that goods containing, or made using, cobalt refined in the People's Republic of China do not enter the United States market, under the presumption that the cobalt is extracted or processed with the use of child and forced labor in the Democratic Republic of Congo.

Among its provisions, the bill, called the "China's Odious and Brutally Atrocious Labor Trafficking Supply Chain Act" or "COBALT Supply Chain Act," will—as does the Uyghur Forced Labor Act—require the Customs Commissioner to apply that presumption unless the Commissioner determines that the importer of record of the covered goods being imported has "demonstrated by clear and convincing evidence that the covered goods were not made or manufactured in the PRC using or containing cobalt."

The Convention on the Rights of the Child recognizes "the right of the child to be protected from economic exploitation and from performing any work that is likely hazardous."

By ignoring these rights and by treating people, including children, as expendable, China is committing a gross violation of human rights and is seeking to rewrite the international order—all while controlling the supply chains of this critical metal, cobalt.

STATEMENT OF HON. JEFF MERKLEY

Thank you very much, Chairman Smith, for convening this hearing, which builds on several hearings that this Commission has held on the issue of forced labor and other abuses, including child labor, in supply chains dominated by Chinese companies, and the importance of holding them accountable when they are complicit in human rights violations.

This Commission regularly spotlights repression by the Chinese government, whether within their own borders, such as in Xinjiang or Hong Kong, or through efforts to reach across borders into other countries, including right here in the United States.

Today we will hear about how those two forms of repression are entwined in the cobalt supply chain originating in the Democratic Republic of Congo.

Cobalt is a critical component in lithium-ion batteries, which are used in everything from cell phones to electric cars, as well as other industrial and defense applications. Almost half of the world's known reserves of cobalt—3.4 metric tons—is in southern DRC, and the country accounts for roughly 70 percent of global production.

A whopping 80 percent of the DRC's cobalt output is owned by Chinese companies, refined in China, and sold to companies in the United States, Europe, and elsewhere for use in batteries and other equipment. So-called artisanal cobalt mines, which remain largely unregulated despite some efforts by the DRC government to formalize the sector, operate alongside larger industrial operations.

Artisanal miners are often women and children, who work for the equivalent of a dollar or two a day, carrying heavy loads out of dangerous mines, while children as young as 3 learn to sift through the stones to wash and sort ore.

The U.S. Department of Labor estimates that at least 25,000 children are working in cobalt mines in the DRC, and they do it without basic protective equipment, like gloves or face masks.

A study in *The Lancet* found that women living in areas where cobalt mines are concentrated "had metal concentrations that are among the highest ever reported for pregnant women," with heavy metals linked to stillbirths and birth defects.

Cobalt mining also causes enormous environmental degradation from large-scale open-pit mines as ordinary people tear up the ground looking for cobalt, then follow the veins wherever they lead, including under homes and churches.

It isn't just cobalt—the DRC is also a top producer of other minerals, like copper and "rare earth" metals, that are vital components in batteries and other advanced technologies.

Facilitated by widespread corruption in the DRC's mining sector, Chinese companies and the Chinese government directly profit from forced and child labor used to mine these minerals, extending their abusive practices across continents. And they supply American companies that produce products we use every day. American consumers deserve to be protected from becoming unwitting and unwilling accomplices in these abuses.

All of these issues have enormous implications for our supply chains, at every step, as we seek to accelerate the transition to a clean, sustainable energy future.

American companies, and those in likeminded countries, have leverage over these tainted supply chains, which they can and must exert to improve transparency and implement responsible sourcing. And both the executive branch and Congress have

important roles to play to reduce and ultimately eliminate labor and other human rights abuses in DRC mining operations.

Addressing these issues is an opportunity for the United States to lead the world in both clean, sustainable energy and in human rights. I look forward to learning more about this set of problems and what we can do to address them from our witnesses.

STATEMENT OF HON. JAMES P. MCGOVERN

Good morning. I join my colleagues in welcoming those present to today's hearing on the use of child and forced labor by Chinese firms that mine and refine cobalt in the Democratic Republic of Congo, the DRC. I regret that I am not able to attend in person.

The existence of exploitative labor relations in the DRC's mining sector is a longstanding, well-known problem that has previously been addressed by Congress, including in a Tom Lantos Human Rights Commission hearing I co-chaired in July 2022.

To summarize the situation, the DRC is rich in cobalt, copper, and other minerals that have both military and industrial applications; industrial mining of cobalt and copper is the mainstay of the formal economy; and labor conditions in both industrial and artisanal mines are dire. Thousands of children reportedly work in the mines; some workers are subjected to debt-based coercion which amounts to forced labor; and working conditions are hazardous.

Today's hearing is concerned specifically with China's role in the DRC's mining sector. Firms based in the People's Republic of China have a dominant position in the DRC's cobalt sector. This creates a supply chain problem for the U.S. as we transition from fossil fuels to green energy, as the Biden Administration has recognized.

Any successful strategy to address the problem requires the active involvement of the government of the DRC, which has ratified several relevant international treaties,¹ and must include support for families, children, and their local communities so that there are alternatives that replace the income generated from a child's labor. U.S. foreign assistance to the DRC supports programs that address working conditions in the mining sector, and the Department of Labor's Bureau of International Labor Affairs, ILAB, is implementing projects such as *Combating Child Labor in the Democratic Republic of Congo's Cobalt Industry (COTECCO)*. I support continuing and scaling up this work.

To address the PRC's role in the problem, responsible sourcing requirements must play a major role. As we have seen in the effort to end the use of Uyghur forced labor, moral appeals to the private sector are not sufficient; the incentives businesses face must change. Importers have a responsibility to demonstrate that the products they bring in comply with U.S. child and forced labor laws. Enforcing U.S. law will cause producers to change their practices or to diversify or relocate their supply chains. The emerging green economy must not be built on the backs of exploited workers.

¹The International Covenant on Economic, Social and Cultural Rights (1976); the Minimum Age Convention (2001); and the Worst Forms of Child Labour Convention (2001).

A Reporter at Large

The Dark Side of Congo's Cobalt Rush

Cell phones and electric cars rely on the mineral, causing a boom in demand. Locals are hunting for this buried treasure—but are getting almost none of the profit.

By Nicolas Niarchos

May 24, 2021



After cobalt was discovered beneath one neighborhood, Congolese began digging under their houses. Some tunnels extended into neighbors' properties. Illustration by Pola Maneli

In June, 2014, a man began digging into the soft red earth in the back yard of his house, on the outskirts of Kolwezi, a city in the southern Democratic Republic of the Congo. As the man later told neighbors, he had intended to create a pit for a new toilet. About eight feet into the soil, his shovel hit a slab of gray rock that was streaked with black and punctuated with what looked like blobs of bright-turquoise mold. He had struck a seam of heterogenite, an ore that can be refined into cobalt, one of the elements used in lithium-ion batteries. Among other things, cobalt keeps the batteries, which power everything from cell phones to electric cars, from catching fire. As global demand for lithium-ion batteries has grown, so has the price of cobalt. The man suspected that his discovery would make him wealthy—if he could get it out of the ground before others did.

Southern Congo sits atop an estimated 3.4 million metric tons of cobalt, almost half the world's known supply. In recent decades, hundreds of thousands of Congolese have moved to the formerly remote area. Kolwezi now has more than half a million residents. Many Congolese have taken jobs at industrial mines in the region; others have become “artisanal diggers,” or *creuseurs*. Some *creuseurs* secure permits to work freelance at officially licensed pits, but many more sneak onto the sites at night or dig their own holes and tunnels, risking cave-ins and other dangers in pursuit of buried treasure.

The man took some samples to one of the mineral traders who had established themselves around Kolwezi. At the time, the road into the city was lined with corrugated-iron shacks, known as *comptoirs*, where traders bought cobalt or copper, which is also plentiful in the region. (In the rainy season, the earth occasionally turns green, as a result of the copper oxides beneath it.) Many of the traders were Chinese, Lebanese, and Indian expats, though a few Congolese had used their mining profits to set up shops.

One trader told the man that the cobalt ore he'd dug up was unusually pure. The man returned to his district, Kasulo, determined to keep his find secret. Many of Kasulo's ten thousand residents were day laborers; Murray Hitzman, a former U.S. Geological Survey scientist who spent more than a decade travelling to southern Congo to consult on mining

projects there, told me that residents were “milling about all the time,” hoping for word of fresh discoveries.

Hitzman, who teaches at University College Dublin, explained that the rich deposits of cobalt and copper in the area started life around eight hundred million years ago, on the bed of a shallow ancient sea. Over time, the sedimentary rocks were buried beneath rolling hills, and salty fluid containing metals seeped into the earth, mineralizing the rocks. Today, he said, the mineral deposits are “higgledy-piggledy folded, broken upside down, back-asswards, every imaginable geometry—and predicting the location of the next buried deposit is almost impossible.”

The man stopped digging in his yard. Instead, he cut through the floor of his house, which he was renting, and dug to about thirty feet, carting out ore at night. Zanga Muteba, a baker who then lived in Kasulo, told me, “All of us, at that time, we knew nothing.” But one evening he and some neighbors heard telltale clanging noises coming from the man’s house. Rushing inside, they discovered that the man had carved out a series of underground galleries, following the vein of cobalt as it meandered under his neighbors’ houses. When the man’s landlord got wind of these modifications, they had an argument, and the man fled. “He had already made a lot of money,” Muteba told me. Judging from the amount of ore the man had dug out, he had probably made more than ten thousand dollars—in Congo, a small fortune. According to [the World Bank](#), in 2018 three-quarters of the country’s population lived on less than two dollars a day.

Hundreds of people in Kasulo “began digging in their own plots,” Muteba said. The mayor warned, “You’re going to destroy the neighborhood!” But, Muteba said, “it was complicated for people to accept the mayor’s request.” Muteba had a thriving bakery and didn’t have time to dig, but most locals were desperate. In Congo, more than eighty-five per cent of people work informally, in precarious jobs that pay little, and the cost of living is remarkably high: because the country’s infrastructure has been ravaged by decades of dictatorship, civil war, and corruption, there is little agriculture, and food and other basic goods are often imported. For many Kasulo residents, the prospect of a personal cobalt mine was worth any risk.

About a month after the man who discovered the cobalt vanished, the local municipality formally restricted digging for minerals in Kasulo. According to Muteba, residents implored the mayor: “We used to mine in the bush, in the forest. You stopped us. You gave all the city to big industrial companies. Now we discovered minerals in our own plots of land, which belonged to our ancestors. And now you want to stop us? No, that is not going to work.” Muteba recalled, “People started to throw rocks at the mayor, and the mayor ran away. And, when the mayor fled, the digging *really* started.”

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Odilon Kajumba Kilanga is a *creuseur* who has worked in the Kolwezi area for fifteen years. He grew up in southern Congo’s largest city, Lubumbashi, which is near the Zambian border, and as a teen-ager he worked odd jobs, including selling tires by the roadside. One day when he was eighteen, a friend who had moved to Kolwezi called him and urged him to join a coöperative of *creuseurs* which roamed from mine to mine, sharing profits. “There were good sites that you could just turn up to and work,” Kajumba said, when we met in Kolwezi.

In those days, it took eight hours to get from Lubumbashi to Kolwezi by bus, on a rutted two-lane road. The thickets on either side of the highway crawled with outlaws, who occasionally hijacked vehicles using weapons they’d leased from impoverished soldiers. Once, bandits stopped a bus and ordered the passengers to strip; the hijackers took everything, even people’s underwear.

Kajumba knew that the journey to Kolwezi was dangerous, but he said of the *creuseurs*, “If they tell you to come, you come.” At first, the work, though strenuous, was exciting; he began each shift dreaming of riches. He had some stretches of good luck, but he never made the big score that would transform his life. Now in his mid-thirties, he is a laconic man who becomes animated only when he is discussing God or his favorite soccer team, TP Mazembe. Mining no longer holds romance for him; he sees the work as a symptom of his poverty rather than as a path out of it. When you are a *creuseur*, he said, you are “obliged to do what you can to make ends meet,” and this necessity

trumps any fears about personal safety. “To be scared, you must first have means,” he said.

Kajumba joined the mining economy relatively late in life. In Kolwezi, children as young as three learn to pick out the purest ore from rock slabs. Soon enough, they are lugging ore for adult *creuseurs*. Teen-age boys often work perilous shifts navigating rickety shafts. Near large mines, the prostitution of women and young girls is pervasive. Other women wash raw mining material, which is often full of toxic metals and, in some cases, mildly radioactive. If a pregnant woman works with such heavy metals as cobalt, it can increase her chances of having a stillbirth or a child with birth defects. According to a recent study in *The Lancet*, women in southern Congo “had metal concentrations that are among the highest ever reported for pregnant women.” The study also found a strong link between fathers who worked with mining chemicals and fetal abnormalities in their children, noting that “paternal occupational mining exposure was the factor most strongly associated with birth defects.”

This year, cobalt prices have jumped some forty per cent, to more than twenty dollars a pound. The lure of mineral riches in a country as poor as Congo provides irresistible temptation for politicians and officials to steal and cheat. Soldiers who have been posted to Kolwezi during periods of unrest have been known to lay down their Kalashnikovs at night and enter the mines. At a meeting of investors in 2019, Simon Tuma Waku, then the president of the Chamber of Mines in Congo, used the language of a gold rush: “Cobalt—it makes you dream.”

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After Kasulo’s mayor fled, many residents began tearing away at the ground beneath them. Some wealthier locals hired *creuseurs* to dig under their houses, with an agreement to split the profits. Two teams of *creuseurs* could each work twelve-hour shifts, chipping at the rock with hammers and chisels. A pastor and his congregation began digging under their church, stopping only for Sunday services.

By the end of 2014, two thousand *creuseurs* were working in the neighborhood, with little regulation. Kajumba and his coöperative soon joined in the hunt for minerals. One man on Kajumba's team, Yannick Mputu, remembers this period as "the good times." He told me, "There was a lot of money, and everybody was able to make some. The minerals were close to the surface, and they could be mined without digging deep holes."

But the conditions quickly became dangerous. Not long after the mayor formally prohibited excavating for minerals, a mine shaft collapsed, killing five miners. Still, people kept digging, and by the time researchers for Amnesty International visited, less than a year after the discovery of cobalt in Kasulo, some of the holes made by *creuseurs* were a hundred feet deep. Once diggers reached seams of ore, they followed the mineral through the soil, often without building supports for their tunnels. As Murray Hitzman, the former U.S.G.S. scientist, pointed out, the heterogenite closest to the surface often contains the least cobalt, because of weathering. *Creuseurs* in Kasulo were risking their lives to obtain some of the worst ore.

One of Kajumba's teammates told me that their coöperative of six used to regularly extract two tons of raw material from a single pit in Kasulo. But most of the best sites were quickly excavated, and the yield from newer pits was less than half as much. The team was also ripped off by unscrupulous traders and corrupt officials. Kajumba said that lately he has struggled to pay his rent of twenty-five dollars a month. "Whenever we dig up a few tons, I send some money to my family," he added.

Drug and alcohol use are rampant among *creuseurs*. Kajumba said that, though many people he knew in Kasulo wasted all their earnings on narcotics, he avoided such temptations. Whenever I met up with him, he made a point of drinking a cola.

Children who work in the mines are often drugged, in order to suppress hunger. Sister Catherine Mutindi, the founder of Good Shepherd Kolwezi, a Catholic charity that tries to stop child labor, said, "If the kids don't make enough money, they have no food for the whole day.

Some children we interviewed did not remember the last time they had a meal.”

Researchers estimate that thousands of children work in mining in Kolwezi alone. Mark Canavera, a faculty member at Columbia University who focusses on child welfare, has spent time in Kolwezi. “I don’t think the government has any capacity to monitor children’s involvement in this,” he told me. “Even if it did, it doesn’t have a framework for thinking about what is child labor and what isn’t.” In such a poor region, parents often expect their children to supplement the family’s income, even if the work is dangerous.

At a school run by Good Shepherd, I met Ziki, a serious boy with large dark eyes. He was fifteen but, because he had been malnourished for long periods, he looked much younger. His parents had been killed in a roadside accident when he was three; afterward, he was sent to live with his father’s sister. “My aunt sent her kids to school but sent me to the mines,” he said. “I was full of bitterness.” He joined a team of boys who roved across Kolwezi.

I was initially skeptical that Ziki had begun working at such a young age, but Mutindi said that she has seen many such cases. “The younger children of four, five, six, seven, these will mainly be collecting—picking stones,” she said. “It’s amazing how they know the value.” Children are eventually given such jobs as washing ore or carrying heavy sacks of rocks to traders who loiter near the sites on motorcycles. When I visited Kolwezi, streams alongside the city’s main roads teemed with women and children washing minerals.

As Ziki and his friends grew older, they began entering pits dug by *creuseurs*. The tunnels were square, four or five feet across, and about sixteen feet deep. It was infernally hot inside them, and oxygen was scarce. “As you were descending, there were rocks that you held on to,” he recalled. “If you held on to the wrong rock and it loosened from the wall, you would tumble into the hole. I would bump into older people who were going down into the pits, and they would tell us, ‘You children, if you enter you will die.’ ”

Ziki worked at mine sites around Kolwezi for eleven years. Although Congo's government periodically claimed that it was cracking down on child labor, few adults tried to stop him from working. "Soldiers would hunt us," he recalled. "If they caught you, they would beat you." He went on, "If you sold your minerals, when you had money, there were street kids, thugs, who could stop you on the road and snatch your money. To pass safely, you had to pay five hundred francs"—about fifty cents—"so you could have safe passage. If you gave them nothing, they would beat you."

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Copper has been mined in Congo since at least the fourth century, and the deposits were known to Portuguese slave traders from the fifteenth century onward. Cobalt is a byproduct of copper production. In 1885, Belgium's King Leopold II claimed the country as his private property and brutally exploited it for rubber; according to "King Leopold's Ghost," a 1998 book by Adam Hochschild, as many as ten million Congolese were killed. But, because of local resistance and the inaccessibility of the region, large-scale commercial mining didn't begin in the south until the twentieth century.

Kolwezi was founded in 1937 by the Union Minière du Haut-Katanga, a mining monopoly created by Belgian royal decree. These colonialists may not have matched the atrocities of King Leopold, but they still saw the country in starkly exploitative terms. They understood that the best way to extract Congo's mineral wealth quickly was to create infrastructure. The company cleared the thickets of thorny acacias and miombo trees that had grown atop Kolwezi's rich mineral deposits and built the town across the area's rolling hills, with wide streets and bungalows for Europeans, whose neighborhoods were segregated from those where Congolese workers lived. Locals were used to create this infrastructure, and to labor in the mines, but, as Hitzman put it, "the whites ran everything."

After independence, the southernmost province, Katanga, was viewed as a prize by Cold War powers. In the sixties, Katanga unsuccessfully tried to secede, with the support of Belgium and the Union Minière.

Then, in 1978, Soviet-armed and Cuban-trained rebels seized Kolwezi and several hundred civilians were killed. Before the insurrection, the Soviet Union appeared to have been stockpiling cobalt, and, according to a report by the C.I.A., the attack set off “a round of panic buying and hoarding in the developed West.” Cobalt, the report declared, “is one of the most critical industrial metals.” Then, as now, the mineral was used in the manufacture of corrosion-resistant alloys for aircraft engines and gas turbines.

The West’s solution to the market instability was to prop up the country’s dictator, Mobutu Sese Seko, who presided over an almost farcically kleptocratic regime. The country’s élite sustained themselves, in part, on the profits from the mines. Gécamines, a state-controlled mining company, ran a virtual monopoly in Katanga’s copper-and-cobalt belt, and owned swaths of the cities that had been built to house miners.

By the early nineties, Mobutu and his cronies seemed to have stolen everything they could, and Congo was falling apart. As the country drifted toward civil war, the Army pillaged Gécamines, and former workers sold off minerals and machine parts in order to feed their families. In 1997, Mobutu went into exile. The disintegration of Gécamines transformed Congo’s mining landscape. *Creuseurs* began digging at the company’s largely abandoned sites, selling ore to foreign traders who had stayed behind after Mobutu was deposed.

Congo became mired in a series of wars in which more people were killed than in any other conflict since the Second World War. The country’s next leader, Laurent-Désiré Kabila, was assassinated, in 2001, and his son Joseph took over. Both Kabilas funded their war efforts by selling Gécamines sites to foreigners. By the time Hitzman arrived, in the mid-two-thousands, Gécamines had become a shell. “Some of the best geologists I’ve ever met in my life were still working for Gécamines, and hadn’t been paid for three years,” Hitzman said. “It was sad as hell.”

Some *creuseurs* in Odilon Kajumba Kilanga’s collective used to work for Gécamines. Yannick Mputu, who is from Likasi, three hours east

of Kolwezi, told me that he once reprocessed tailings at a company mine in his home town, adding, “When Gécamines closed, we had to go to Kolwezi.”

The collective regularly sneaked into open-pit mines that are now owned by companies like the Swiss multinational Glencore. “We enter at night, we work, and leave early in the morning,” Mputu told me. He noted that *creuseurs* put something aside for the soldiers and the police who supposedly prohibit outsiders from entering: “We give them a percentage of our earnings, and they let us in.”

In June, 2019, more than forty *creuseurs* were killed in a landslide after breaking into a Glencore-owned mine in Kolwezi. Kajumba and his friends were also at the site that night, but they were working a different seam. “The worst thing I’ve seen as a miner is the sheer number of dead bodies when there were cave-ins,” Kajumba said. The night after the Glencore landslide, a mining-company employee told me, “people snuck back in and continued digging.”

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Videos of Kasulo taken during the height of the 2014 cobalt rush show orange tarpaulins covering fresh pits and bags of minerals littering the streets. Michael Kavanagh, a journalist, visited the district a year later, and published [an article](#) in the *Times* observing that the profusion of holes made it look “as if it had been bombed.” At one point, after *creuseur*stunnelled beneath the main road running west to Angola, the road collapsed.

Kajumba and his team were part of this initial frenzy. They knew that picking at the rock beneath Kasulo’s sandy soil was treacherous, especially during the rainy season, but they were happy not to be risking arrest, as they were when they broke into the big mines. One day in December, 2014, Kajumba and other *creuseurs* were working a pit at Kasulo when they felt a rumble. “It was as if something was falling deep underneath us,” Kajumba recalled. They knew that, the previous day, a group of *creuseurs*working in a neighboring hole had asked a local chief to perform a ritual over a new area where they had

been digging. *Creuseurs*, many of whom have little formal education and enter pits every day fearing that they might die, can be superstitious. Magic practitioners, known as *féticheurs*, are sometimes employed in the hope of increasing the chances that a fresh pit will contain bounties of cobalt and copper.

Such rituals are often benign, but they can have a sinister side. Among the prevailing superstitions in the region is a belief that having sex with a virgin girl will enhance one's luck in the mines. While I was in Kolwezi, Mutindi, of Good Shepherd, showed me photographs of the bruised corpse of an eight-year-old girl who had been abducted and raped by a *creuseur* the previous week. (The miner was later apprehended; she sent me a video of him in prison.) Children frequently die while being raped. In one case, Mutindi said, she saw the body of an eighteen-month-old infant who had been raped by a *creuseur*.

At Kasulo, the *féticheur* who had performed the ritual over the neighboring pit had warned the miners not to enter it for three days, to avoid angering a dragon that, he said, lived at the bottom. The *creuseurs* were told that the pit would then be safe—and full of minerals. Rumors of the pit's riches spread, and a day later some miners decided to disobey the *féticheur*. “*Creuseurs* have curiosity,” Mputu said. “They wanted to see what was down there.”

After Kajumba and Mputu felt the ground shudder, they rushed to the neighboring hole. Part of the tunnel had caved in, trapping their neighbors deep below. Some fifty people vaulted into the darkness, desperate to save their friends. Rescuers nearly suffocated in the subterranean passages. Eleven of the trapped miners died, as did four rescuers.

Following another series of *féticheur* rituals, and another period of waiting, all the bodies were pulled from the hole. Some were horrifically burned. “The last person who escaped from the pit said that he saw a huge flame,” Mputu told me. The fire's origin was unclear, but artisanal miners can unearth pockets of flammable gas. To Mputu and his colleagues, the accident had supernatural trappings. “The cause of the flame was none other than the dragon,” he told me.

Nine months after the cave-in, another group of *creuseurs* in Kasulo burned a tire in an underground gallery, in an attempt to crack open a stubborn rock face. Five people asphyxiated from the fumes; thirteen others were hospitalized. After the incident, Radio Okapi, a media group sponsored by the United Nations, interviewed Kolwezi's mayor, who said that a year earlier he had sent a report to his superiors urging the closure of the artisanal pits. According to Radio Okapi, the mayor "expressed regret that no site was closed because of this request." The report noted that more than a thousand holes had been dug in Kasulo.

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The Democratic Republic of the Congo was reorganized in 2015, and Kolwezi became the new capital of a region called Lualaba. The first governor of Lualaba, Richard Muyej Mangez Mans, promoted himself as Papa Solution. In Kolwezi, many benches at bus stops were painted with his nickname. In an interview with the magazine *Mining and Business*, Muyej spoke critically of the cobalt "contagion" in Kasulo. "A plan is needed to avoid hasty movements that could turn into a humanitarian tragedy," he said. "We have made a project proposal that we will submit to the authorities."

The proposal, which Muyej didn't disclose at the time, involved granting the mineral rights at Kasulo to a foreign company: Congo Dongfang International Mining, a subsidiary of Zhejiang Huayou, a Chinese conglomerate that, among other things, has supplied materials for iPhone batteries. China is the world's largest producer of lithium-ion batteries, and Huayou has made a huge investment in Congo. After acquiring mineral rights in the region, in 2015, it built two cobalt refineries. According to an internal presentation, by 2017 Huayou controlled twenty-one per cent of the global cobalt market. (A Huayou spokesperson said that Congo Dongfang followed international standards in developing Kasulo, and plans to "gradually eradicate all forms of human-rights violation with a responsible supply chain.")

China and Congo have a long history. During Leopold's reign, Chinese workers were shipped to Congo to help build the national railroad. In the nineteen-seventies, Mobutu turned to Mao's regime for technical

collaboration on infrastructure projects. By the nineties, the Chinese were becoming the bosses: the Beijing government and myriad Chinese businesses began making heavy investments in Africa, particularly in resource-rich and regulation-poor countries like the Democratic Republic of the Congo. Peter Zhou, a Chinese-born financier who has worked on a few mining deals in Congo, said that in such countries “there is corruption, there is lack of the rule of law, which gives you more autonomy to be entrepreneurial.” (Zhou emphasized that he hadn’t directly witnessed or engaged in corruption.) In 2007, Joseph Kabila made a six-billion-dollar infrastructure deal with China that included a provision allowing the Chinese to extract six hundred thousand tons of cobalt.

The journalist Howard French, in his 2014 book, “China’s Second Continent,” writes that in Zambia, Congo’s neighbor, Chinese companies invested so extensively in copper mines that the flood of foreign money was said to be influencing elections. Beijing was blamed for increasing Africa’s debt burden, and an essay in the magazine *New African* accused China of “a new form of colonialism.”

These days, most of the cobalt in southern Congo comes from industrial mines, which are largely owned by Chinese companies. In 2016, China Molybdenum paid the U.S. company Freeport-McMoRan \$2.65 billion for a controlling stake in Tenke Fungurume, a giant copper-and-cobalt mine about two hours east of Kolwezi; three years later, China Molybdenum acquired another stake, for \$1.14 billion. Zhou, who worked on the Tenke Fungurume deal, divided the current Chinese involvement in Congo into two phases. At first, he said, companies had to take significant financial risks, because “there was a lack of infrastructure—the cost base is high to transport all the materials.” They also had to pay bribes to government officials and Gécamines executives. During this phase, Chinese companies were incentivized to make money by whatever means possible. “If you conduct your business without, you know, a proper return, then you can’t justify the risk,” Zhou told me. During this period, he said, mines had few safety protections.

With sufficient infrastructure in place, Zhou went on, the “Chinese are now conducting business in a more moral way. They have to keep the people in a peaceful mind-set, so they started to build a social relationship—training locals in how to grow out their culture, their schools.” He continued, “There’s less gray conduct now, and more of a sort of transparent business.”

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In 2017, Chinese workers arrived in the village of Samukinda, half an hour northwest of Kasulo, and quickly constructed two dozen houses with corrugated-iron roofs. Kasulo residents were ordered to leave their neighborhood within two weeks. The Congolese government revealed that a mining permit had been granted to Congo Dongfang, which would remove the topsoil and then wall off what had once been the neighborhood. *Creuseurs* from an approved coöperative would be allowed to mine the site, and Congo Dongfang would become the exclusive buyer of Kasulo’s ore.

Congo Dongfang offered the families of Kasulo either a lump sum for their plots—up to twenty-five hundred dollars—or a new home in Samukinda. A consortium of local organizations wrote to Governor Muyej, protesting that the evictions were illegal, but he pressed on. Muteba, the baker, told me that on a rainy day a couple of months later, employees of Congo Dongfang “came with huge trucks to crush our houses.”

Around this time, Joseph Kabila announced that, after eighteen years in office, he would not run for reelection. In January, 2019, Félix Antoine Tshisekedi Tshilombo became President. The following spring, I met with Governor Muyej at his fortified compound in the center of Kolwezi. Muyej said that Tshisekedi would likely maintain the course set by Kabila—“a flight that we must take to get out of poverty.”

Muyej told me that he hoped to diversify the local economy through tourism and agriculture. Mining, he said, exacerbated inequalities—“enormous mineral wealth beside a population that lives in enormous

precarity.” In 2018, *Forbes* praised Muyej’s governorship as “a model for bringing together economic prosperity, political transparency and social impact.” Yet it’s hard to imagine Kolwezi becoming a travel destination anytime soon. On a recent trip there, I tried to visit Katebi Lodge, a new lakeside resort. At the entrance, a metal gate topped with barbed wire, I was shooed away by a police officer toting a Kalashnikov. Apparently, the lake was too polluted to allow visitors.

Muyej often cited the building of a new governorate office—a gaudy structure rising above a sea of ramshackle cinder-block houses—to show how he had modernized Kolwezi. Renovations of the local soccer stadium and the town’s central roundabout, which features a statue of mine workers, were financed by mining companies.

Muyej told me that he hoped to reform the mining sector, in part, by reducing child labor and by centralizing the market where traders buy cobalt, thus instilling transparency in the supply chain. Critics have called such reforms cynical bids to control and tax artisanal production for personal gain. Muyej, his family, and officials close to him have profited from the mining boom. The Governor’s son Yves is the C.E.O. of a logistics company in Kolwezi; on LinkedIn, one of his employees describes himself as the site supervisor of the Congo Dongfang mine. Muyej’s cabinet chief, Yav Katshung, is a lawyer whose firm does work for Congo Dongfang. (Katshung and Yves Muyej both declined to speak to me.)

Muyej said that as many as a hundred and seventy thousand *creuseurs* work informally in his province. Among the forty or so sites where artisanal miners are employed as day laborers is the Congo Dongfang mine in Kasulo. Only eight hundred or so *creuseurs* work there, however, and that has stoked resentment. Jacques Kayembe, the president of an artisanal mining collective, told me, “Kasulo is a village that is built on mineral deposits, but not enough *creuseurs* can legally work on official artisanal deposits, and that’s a problem.”

Whenever Muyej tried to reason with *creuseurs* who had sneaked onto industrial concessions, he was attacked with stones, and in 2019 there

was so much unrest in Kolwezi that the military was sent in. It has become common to see soldiers carrying machine guns and rocket launchers around the city. When I first visited the area, in 2019, a toll booth outside the city was riddled with bullet holes. A local journalist travelling with me said that a policeman at the booth had recently been murdered by gangsters.

Since the emergence of covid-19, Congo's south has endured a series of lockdowns. Kajumba said that *creuseurs* like him "continue to work, but the situation is difficult." Companies have furloughed workers, adding to their frustration. Several months ago, a Congolese friend sent me a video of miners protesting for back pay at a Chinese-run mine in Kolwezi. As pandemic restrictions continued, my friend sent me footage of protesters burning tires in the streets.

Last year, the Platform to Protect Whistleblowers in Africa announced that two Congolese citizens had leaked documents revealing numerous improprieties at Afriland First Bank, a Cameroon-based institution where Muyej had at least one account. Muyej, it was revealed, had been moving hundreds of thousands of dollars through the bank. He is now under investigation in Congo for corruption, and his vice-governor is running Lualaba. According to Radio France Internationale, the Congolese authorities have accused Muyej of not being able to justify forty per cent of his cabinet's expenses. (A representative for Muyej said that the Governor had done nothing wrong, and welcomed an audit of his finances.)

Huge sums of money continue to change hands in the region. In December, China Molybdenum paid Freeport-McMoRan half a billion dollars to acquire a controlling stake in Kisanfu, a copper-and-cobalt concession east of Kolwezi. At a recent conference sponsored by the *Financial Times*, Ivan Glasenberg, the C.E.O. of Glencore, said, "China, Inc., has realized how important cobalt is." He continued, "They've gone and tied up the supply." He warned that if Chinese companies stopped exporting batteries, this could hamper the ability of non-Chinese companies to produce electric vehicles. Last month, catl, a Chinese conglomerate that develops and manufactures lithium-ion batteries, acquired a hundred-and-thirty-seven-million-dollar stake in

the Kisanfu mine. Tesla works with the company to make its car batteries, and it has supplied batteries to Apple. Recently, according to witnesses at Kisanfu, a cave-in killed at least four *creuseurs*.

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In the spring of 2019, I visited the Congo Dongfang mine in Kasulo, escorted by company representatives. Signs by the gate said that children and pregnant women were forbidden to enter. Inside the compound, the land that had once been a bustling neighborhood was now a giant red crater. (I saw no children during my visit, but Kajumba told me that they still find their way in.) My minders cautioned me not to wander too close to the *creuseurs*, as they were liable to be violent. Not long before my arrival, a group of them had set some company trucks on fire.

Kajumba said that Congolese had been employed to mediate between the *creuseurs* and company officials. Often, the *creuseurs*' demands were not met and they went on strike. "You go in to work and say, 'No, I won't do anything,'" Kajumba said. "The Chinese will feel unsafe and call in the police." The police, he said, do the company's bidding: "They know they will get a gift from the Chinese, so they will threaten you with teargas and batons." Kajumba said that he had been teargassed by police at Kasulo: "Everyone ran to save his life. We felt defenseless."

At some sites, the treatment of Congolese by their Chinese bosses is reminiscent of the colonial period. In a video shared with me by Mutindi, of Good Shepherd, a Congolese guard with a Kalashnikov slung across his back beats a man who is lying, semi-naked, in mud, his arms bound. Behind the camera, a man otherwise speaking Mandarin starts yelling "*Piga!*"—the Kiswahili word for "beat." In the background are seven of the trucks that Congo Dongfang uses to transport cobalt ore.

Upon my arrival at the mine, I had been given a long explanation of safety protocols, but as I approached the *creuseurs* it was clear that they had only rudimentary equipment. Plastic jerricans, cut roughly in half

and tied to ropes, were being used to haul ore. Many *creuseurs* were shoeless, and I saw none wearing helmets or goggles, despite the fact that a confidential 2018 audit, by the Korean conglomerate LG Chem, had criticized the site for a lack of proper safety equipment.

Some *creuseurs* washed ore in dirty ponds by the pits. “The Chinese are cheating us,” one of them murmured. “They’re telling us the ore is less pure than it is.” Kajumba said that he had stopped working at Kasulo six months earlier because he felt that he was being treated unfairly. “It’s as if you were working to suffer even more,” he told me.

In a warehouse at the site, I watched a man, his face grim, pulverizing ore on a concrete floor as two Chinese overseers scrutinized *creuseurs* from behind a barrier of chicken wire. No Chinese employee interacted with me, and nobody responded when I waved in greeting.

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One night in Kolwezi, I went to a Chinese-run casino with a few Congolese friends. I was immediately allowed inside, but they were stopped at the door and told that they could not gamble. Black Africans, the casino’s staff explained, can’t be trusted with money. At a roulette table, a host of drunken white South Africans addressed a Congolese croupier as “Black man.”

It’s unclear how many Chinese live in Congo, though estimates range from fewer than ten thousand to as many as a hundred thousand. Before the pandemic, Ethiopian Airlines’ daily flights from Addis Ababa into Lubumbashi were filled with Chinese passengers. When these workers arrive in a mining town, signs in Mandarin guide them to Chinese-run hotels, shops, and restaurants. Outside work, the Chinese rarely mingle with the locals. Very few of them know French or Kiswahili, the most commonly spoken languages of Congo’s south. In a [2017 essay](#), the Congolese political scientist Germain Ngoie Tshibambe wrote that many Chinese find their time in Congo lonely and difficult. “It is no paradise for migrants,” he noted.

Few locals patronize Chinese restaurants, which tend to be relatively expensive and not to their taste, but Chinese health clinics have become popular. The clinics offer a rare opportunity for casual social interaction—perhaps more so than at the mines themselves. In 2011, Jean Jolly, a French journalist, reported that one of Congo Dongfang’s directors of external relations had never visited the mine that he represented, two miles away.

Congolese who work at Chinese-run mines said that their supervisors were often racist. A Congolese translator who speaks Mandarin told me, “Chinese people are coming here for business to make money, so they can never be our friends.” He had overheard Chinese employers saying of the Congolese, “These people, they don’t really *think*.”

Creuseurs around Kolwezi frequently complained to me that Chinese-owned mines had replicated the harsh conditions of China’s own mining industry. Congolese often say, “If they work without shoes there, how can they be expected to give us shoes to work here?” A Western mine official told me he had visited a mine in Congo, owned by a small Chinese company, that had many Chinese laborers. It reminded him of an internment camp: “The Chinese were barefoot, they were digging with shovels, and they couldn’t leave.”

Peter Zhou, the Chinese-born financier, referred to the locals in Congo as his “Congolese brothers,” and argued that many big Chinese-run mines in the region had implemented strong safety standards. Recalling his first visit to southern Congo, Zhou said, “I wasn’t too surprised about the poverty, because I grew up in Shanxi Province, in the interior of China.” When he met with Congolese families in roughly constructed homes, he was reminded of the cinder-block rooms of his youth.

Zhou acknowledged that there was “a lot of corruption” in Congo’s mining sector, but he maintained that, with enough economic prosperity, the gray economy in Congo will fade, much as it has in China. “My Western friends come to it and say, ‘There are significant risks associated with business here,’” he said. “I see something familiar.”

During one of my visits to Kolwezi, Kajumba invited me to the cramped room that he shares with Yannick Mputu and Mputu's brother, Trésor. I followed Kajumba down an alley in one of the town's sprawling working-class neighborhoods. We entered a courtyard, hung with drying linens, that smelled strongly of sewage, then passed through a green doorframe covered with printed fabric.

Inside, the walls were painted various bright colors. Above a bed facing an old cathode-ray television was a rack of neatly pressed suits, shirts, and jackets, many with natty checks and patterns. Even though Kajumba struggles to get by, he keeps up with the latest fashions. On the day that I visited, he was wearing an orange gingham button-down paired with a black-and-white-speckled baseball cap.

Creuseurs take pride in the ingenuity required to do their job well, and some of them told me that they like the irregular working hours. But Trésor Mputu, who has two children living in Likasi, told me, "As a father, I wouldn't accept my son going to the mines." Yannick nodded. "I would want, through my labors, to enable my children to go further," he said. "I want them to be able to study in good conditions, and for them to be able to leave the country to develop themselves."

Even if artisanal mining supports poor families in the region, it's hard to applaud it. The lives of most *creuseurs* are short and marked by suffering. Many have physical and psychological injuries from mine collapses and other accidents, and from violent confrontations with the police and the Army. Ziki, the former child *creuseur*, recalled an incident that took place when he was about twelve: "One Friday, we were sitting down, and soldiers came into the mine—they caught us. They threw us to the ground. They sprayed us with water and then began to whip us. We began to cry and ask for mercy. And we swore to them that we would never come again to this place."

Soon afterward, Ziki left his group of friends, who had begun drinking and smoking heavily, and wandered around mine sites by himself. He began sleeping at sites, eating little and being abused by soldiers. At

one point, he was taken hostage by older *creuseurs* who accused him of stealing their wares. In a stroke of luck, members of a CBS News crew met him while he was washing minerals. They encouraged his family to take him and his siblings out of the mines. “They asked my grandmother, ‘Aren’t these children capable of studying?’ ” he said. “My grandmother promised to take us back to school.” (CBS viewers donated money for their schooling.)

I asked Ziki what he thought of people who profited from cobalt mining. “I have sadness in my heart when I think of people who buy the minerals,” he said. “They make so much money, and we have to stay like this.” When I told him that Americans paid more than a thousand dollars for the latest iPhone, he replied, “It really hurts me to hear that.”

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The companies that use lithium-ion batteries periodically respond to public pressure about the conditions in cobalt mines by promising to clean up their supply chains and innovate their way out of the problem. There is also a financial incentive to do so: cobalt is one of a battery’s most expensive elements.

Last year, Tesla pledged to use lithium-iron-phosphate batteries, which do not contain cobalt, in some of its electric cars. Huayou stock plummeted. Still, Reuters noted, “it was not clear to what extent Tesla intends to use L.F.P. batteries,” and the company “has no plans to stop” using batteries that contain cobalt. (L.F.P. batteries aren’t used in cell phones: to achieve the required voltage, the batteries would have to be doubled up, adding unacceptable bulk and heft.)

After Amnesty International published a report on unethical cobalt mining, in 2016, Apple issued a statement saying that it “believes every worker in our supply chain has a right to safe, ethical working conditions,” and that “underage labor is never tolerated.” The following year, after a report by Sky News showed that cobalt mined by children was still being used in the company’s devices, Apple suspended purchases of hand-mined cobalt, but once the media attention died

down the practice continued. Huayou remains part of Apple's supply chain.

In December, 2019, attorneys from International Rights Advocates, a law firm in Washington, D.C., sued Apple, Google, Dell, Microsoft, and Tesla for involvement in the injuries or deaths of child miners. "These boys are working under Stone Age conditions for paltry wages, and at immense personal risk, to provide cobalt," the complaint alleges. "The hundreds of billions of dollars generated by the Defendants each year would not be possible without cobalt mined in the D.R.C."

Terry Collingsworth, the lawyer for the plaintiffs, believes that the brutal conditions must have been apparent from the start. "I can't imagine that a company like Apple would become dependent upon a supply chain without having spent quite a bit of time on the ground," he told me. In response, Apple said that it had been improving standards since 2014 and contended that it is "constantly working to raise the bar for ourselves, and the industry." It also said that it had made innovations in cobalt recycling. (In August, 2020, the companies being sued jointly filed a motion to dismiss, and in October the plaintiffs filed a brief in opposition.)

The outcry over working conditions has led industry players to found the Fair Cobalt Alliance, an organization that, among other things, supports small-scale mining with safety equipment and clean water. The group is now present at Kasulo and at another site. Glencore, Huayou, and Tesla have joined the alliance.

Ziki, who is now in school, likes studying and playing soccer, and administrators have given him basic supplies to take home to his family. When I asked him what he hoped for in life, he replied, "I have the hope that I can become the governor!"

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One Sunday morning, I met Kajumba and Trésor Mputu at the Temple Évangélique de Carmel, a hangar-style megachurch in the center of Kolwezi. The sign outside proclaims that it is the "thirtieth Pentecostal

community in Congo.” Kajumba and Mputu attend services every Sunday. “When someone finds themselves in difficulties, they can come to the church, they can pray,” Kajumba said.

Inside, people swayed and sang, their hands outstretched. A few congregants spoke in tongues. On a stage covered with flowers, one of the pastors declared that the church was “worth more than any enterprise.” He promised that spiritual riches awaited even his poorest parishioners.

After church, Kajumba, Mputu, and I went to a local bar to watch the broadcast of a soccer match between a Malagasy team and TP Mazembe, which is passionately supported throughout the south. When Mazembe scored the first goal, Kajumba smiled. Suddenly, the television crackled, and the programming switched to another game, in Kinshasa, the nation’s capital. “They always forget us down here in the south,” someone said. Kajumba sighed and said that he should probably head home.

One day, driving north out of Kolwezi, I noticed how deeply faith permeated everything around me: the Mount Carmel health clinic, the Salon Apocalypse hairdresser, the Light of God tire shop. Eventually, the road became unpaved. Trucks carrying sulfuric acid threw up plumes of dust as they trundled toward factories where raw minerals are processed.

I turned onto a side road and crossed a creek where men, women, and children were washing cobalt ore. On the other side lay a cluster of mud-brick houses. This was Samukinda, the village where new houses had been built for the exiled residents of Kasulo.

The sun was punishingly hot that day, and I was grateful when Nama Mavu, the local chief, invited me into her home for a chat. “My ancestors came from Angola, and they set up the village in 1941,” she said. On her parlor wall there was an image of Jesus, and a poster advertising a copper-and-cobalt mine. “My ancestors came here to build the railroad, and, when the construction of the railroad finished, they stayed.”

For years, the villagers farmed the surrounding bush, growing large crops of manioc, but about a decade ago the land became polluted after some foreign businessmen opened a cobalt-processing plant nearby. This left no source of employment for the villagers, except as low-paid day laborers. In 2018, the residents of Kasulo who had been displaced by the Congo Dongfang mine began to arrive.

As I walked through the village, children laughed and pointed at me, shouting “Chinese! Chinese!” Mavu said that the villagers were seldom visited by foreigners, even though their factories and mines now surrounded the town. She assigned two young men to escort me to the houses that Congo Dongfang had built. A row of modern-looking white buildings rose in the distance. As they came into focus, it was clear that their construction was slapdash.

Few of the homes were even occupied, as most of the original residents of Kasulo had accepted money instead. Those families who had chosen to take a house had been shown a brochure with beautiful pictures. But the homes turned out to have no electricity or bathrooms. The roofs leaked, and the well at the corner of the development was dry. Most of the families moved away.

Muteba, the baker, was one of the few arrivals from Kasulo who had remained in Samukinda. Now in his seventies and retired, he wore a soiled lab coat over his emaciated body. He welcomed me into his house, which was stifling hot. The roof was only roughly attached to the walls. He had dug himself a lavatory pit, which was covered with a board. “The water here, it’s not good,” he said. “The smell of acid and pollutants comes out of any hole we try to dig for water.”

Muteba, who was ill with diarrhea, wistfully recalled his home in Kasulo. “It was a big parcel of land,” he said. “It had at least fifteen trees—avocado trees, mango trees. All this was mine.” He continued, “We were chased out of our homes like animals, and now we suffer like strangers.”

Mavu told me that her village can hardly support its own inhabitants, much less the new ones from Kasulo. She has no means of transport, and Governor Muyej has refused to come and see her in order to take

stock of the village's problems. She asked me to change about twenty dollars' worth of Zambian money that she had carefully folded away after making a trade with food importers. There is no school at Samukinda, and the nearest shops are miles away.

During my meeting with Governor Muyej, I raised some of the complaints I had heard at Samukinda. He insisted that I had "a bad comprehension of the issues." He promised to address the dry well and the poor housing construction. When I returned to the village, five months later, Mavu told me that Papa Solution still hadn't sent anyone: "All that has changed is that I am older."

At the end of my first visit to Samukinda, I noticed mining tailings spread across a path. The residents had put them there to check erosion during the rainy season. I wondered if the tailings contained any cobalt, and a young villager told me that they probably did—after all, the entire region rested on mineral deposits. I then asked him if the residents of Samukinda had considered digging beneath the village. The young man shrugged and said that the people in his village didn't want to suffer the same fate as those in Kasulo. Then he made a prediction: "In the end, they will come and kick us out of here." ♦

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Nicolas Niarchos has contributed to *The New Yorker* since 2014. He is currently working on a book about the global cobalt industry.



**United States House of Representatives
Congressional-Executive Commission on China**

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*Witness Biographies***Eric Schultz, former U.S. Ambassador to Zambia**

Ambassador Schultz is a former senior American diplomat with decades of experience in the CIS and southern Africa. He has worked extensively with Ukraine, Russia, Turkmenistan, and Georgia, and has experience in emerging markets around the world. Mr. Schultz served as U.S. Ambassador to Zambia (2014–2017); the Deputy U.S. Ambassador to Ukraine (2010–2013); the Minister-Counselor for Economic Affairs at the U.S. Embassy in Moscow (2007–2009); Deputy U.S. Ambassador to Zimbabwe (2004–2007). Prior to these leadership assignments he also worked in Georgia, Martinique, France, and Madagascar as well as serving in a number of assignments in Washington, including Deputy Director of the NATO desk and Deputy Director of the Ukraine desk. Eric Schultz graduated from Macalester College (St. Paul, Minnesota) and holds an M.A. degree in International Studies from Denver University. Eric Schultz speaks English, French, Ukrainian, and Russian.

Milos Ivkovic, international arbitrator; Adjunct Professor, Washington University School of Law; human rights advocate

Milos Ivkovic is a law professor at Washington University, teaching Introduction to Human Rights and International Criminal Law. He is an international arbitrator and human rights advocate. Over the course of the last decade, Prof. Ivkovic has been raising awareness of the deteriorating state of democracies worldwide, including the ongoing illicit weaponization of trade and supply chains to target and disempower free societies. He is recognized for his extraordinary efforts and actions to eradicate the worst forms of child slavery, human rights abuses, torture, and human trafficking in Africa and throughout the world. Prof. Ivkovic was also involved in achieving the release of journalists wrongfully imprisoned in Africa and serves on the board of the Interparliamentary Taskforce on Human Trafficking.

Joseph Mulala Nguramo, Non-Resident Fellow, Atlantic Council's Freedom and Prosperity Center and Scowcroft Center for Strategy and Security

Joseph Mulala Nguramo is a nonresident fellow in the Freedom and Prosperity Center and the Scowcroft Center for Strategy and Security at the Atlantic Council. He was born and spent his formative years in the Democratic Republic of Congo. He was the first, and thus far only, Congolese to graduate from the United States Military Academy at West Point, where he majored in Defense and Strategic Studies. He holds a master's degree in Global Theory and History from the School of Advanced International Studies at Johns Hopkins University, where he has been co-teaching a class on Modern Supply Chain Diplomacy. Additionally, Joseph has worked as a research assistant at the Brookings Institution, where he focused on education; at the Taubman Center for State and Local Government within Harvard University's Kennedy School of Government, where he focused on African public policy; and at the International Economic Alliance, where he led the student internship program and organized meetings between governments and private sector participants to promote trade, economic growth, and development. At the Atlantic Council, he is working with the Freedom and Prosperity Center which focuses on advancing democracy, quality governance and the rule of law; and the implications of the return of great power competition and how it will shape the new world order in the 21st century.

Nicolas Niarchos, freelance journalist

Nicolas Niarchos is a journalist based in New York. His work focuses on minerals, migration, and conflicts. He is a regular contributor to the *New Yorker* and the *Nation*. His work from Ukraine won a 2023 Edward R. Murrow award from the Radio Television Digital News Association. He has written stories from Congo, Ukraine, Indonesia, Yemen, Burkina Faso, Niger, Morocco, Western Sahara, Djibouti, Iran, Uzbekistan, Bhutan, the United Kingdom and Greece. He is writing a book for Penguin Books about the battery metal supply chain that includes reporting from the United States, Europe, Asia and Africa. Between January 2014 and December 2018, he worked as a fact checker and deputy head of fact checking at the *New Yorker* magazine. Prior to the *New Yorker*, he worked as a blog editor at the *Independent* in London. He holds an M.S. from Columbia University's School of Journalism and a B.A. from Yale University.