Thank you, Congressman Smith, McGovern, and other Members of the Lantos Commission for drawing attention to the plight of the most vulnerable people in our technology supply chains today. Imagine your second grader being forced to spend all day tunneling in a dangerous mine with little to no safety equipment in an area that had many known collapses, with soldiers illegally intimidating and abusing miners and other civilians. There are an estimated 30,000 child miners in of the Democratic Republic of Congo (DRC), and significant corruption and human rights abuses in the sector, all for a mineral that make its way to us – in our electric cars, smart phones, and laptops. That mineral is cobalt.

While child miners and survivors of human rights abuse are stains on our conscience, there is important momentum to build on to address the problem. Cobalt supply chains are relatively short and simple when compared to other minerals, with only 50 to 80 viable mines overall, concentrated mainly in one region of one country, the DRC. And there are only about 75 major cobalt smelters worldwide, the choke point in supply chains. Although Chinese companies are attempting to break off as an independent group, the reality is that U.S. automotive and electronics companies still have significant leverage on this supply chain through their combined buying power if they focus their energies – even with Chinese companies. And there has been some progress in reducing child labor at pilot mines.

If any supply chain issue is solvable it is this, and key lessons from fight against conflict minerals can and should be drawn. The other bit of positive news is that the U.S. government has taken some steps to combat corruption in the DRC, following Congressional encouragement, so there are building blocks to work with.

The bad news is that the window of reform is narrowing in the DRC and corruption is increasing ahead of national elections scheduled for 2023, and some major U.S. companies are not nearly as engaged as they need to be on cobalt reforms. And the progress at pilot mines is not yet widespread.

Congress can play a key role to spark industry to move more robustly on cobalt supply chain reforms and to urge the Biden administration to focus on combating corruption in the DRC mining sector.

The Kleptocratic System

What allows this dirty trade to continue – and the tragic consequences of child labor and human rights abuse – is actually a highly functional system for some. A kleptocratic system continues to exist in the DRC that allows ruling elites and their commercial partners to thrive while leaving the population to suffer from abysmal security, health care, and education services. Over the past 130 years, the DRC has had many
elements of violent kleptocracy, a system of state capture in which ruling networks and commercial partners hijack governing institutions and maintain impunity in order to extract resources and secure the regime. The networks use varying levels of violence to maintain power and repress dissent.

The keys to getting rid of child labor and human rights abuse in this sector are to focus policy measures on attacking the kleptocratic system directly, particularly through 1) transparency and anti-corruption reforms, particularly through the supply chain; 2) consequences for the most corrupt actors; and 3) formalizing and legalization of artisanal mining. But before delving into these policy recommendations, let me give a bit of background on the issue.

Background on Cobalt

Cobalt is a key ingredient in batteries in electric cars, phones, and electronics, as well as in defense applications. It is the mineral that gives the batteries longer life — e.g. longer driving distances for electric cars without recharging. Cobalt is heavily concentrated in the DRC, which produced over 70% of the world’s cobalt last year and contains approximately half of the world’s known reserves. The bulk of Congo’s cobalt — 75 to 85% — is produced by industrial mining companies in large pit mines, and around 26,000 workers work at the five largest mines. Many of those workers face dire working conditions, according to a recent study, and salaries have been cut by up to 40% as Chinese mining companies have increased their presence.

The artisanal trade makes up about 15-25% of Congo’s cobalt exports, employs about 150,000 to 255,000 miners, including an estimated 25,000 to 35,000 children. Part of the artisanal cobalt trade is militarized, with Congolese army units known as the Republican Guard controlling certain mining areas, engaging in violence, sexual abuse, and exploitation, passing up profits to corrupt politicians in Kinshasa.

Most cobalt is processed in China, which contains a slight majority of the world’s cobalt smelters (approximately 50 out of 100 overall, with 75 major cobalt refiners).

But then much of it goes to the United States and Europe for use in car, phone, and computer batteries, as well as in military equipment. Electric vehicles are now the main users of cobalt, and that is likely to continue to grow. For the first time ever, EVs became the largest end users of cobalt last year (34%), followed by with smart phones (15%), and laptops and desktop computers (9%). This means that American and European companies have important leverage over the supply chain.

Industry, with recent help from the Department of Energy, has been very active in research and development on trying to develop batteries that do not contain cobalt. These have become more and more promising, in particular with lithium iron phosphate, or LFP batteries. Half of all Teslas used LFP batteries last year, and Ford, VW, Samsung, and other companies plan to introduce them soon. Drive range and battery life aren’t as good in the cobalt-free batteries, but the technology is improving. But cobalt is far from being phased out yet, so companies have a responsibility to clean up cobalt supply chains.

Action to Date and Key Challenges

The electronics and auto industries, as well as governments, have begun work on cobalt issues, starting in 2016 when Amnesty International released a scathing exposé report on child labor. Several multi-
stakeholder groups on cobalt have been formed, including the Global Battery Alliance Cobalt Action Partnership, the Fair Cobalt Alliance, and others.

The most significant of these is arguably the cobalt program run by the tech industry association Responsible Minerals Initiative (RMI), which has put together an auditing system for the smelters of cobalt on conflict minerals, child labor, and environmental issues. Impressively, a majority of the world’s major cobalt smelters are participating in the program: 31 smelters worldwide have undergone and passed the audits, including 19 Chinese companies, and 13 more are in the process of being audited, including 8 Chinese smelters.\(^{15}\)

However, the issue now is that the Chinese Chamber of Commerce on Metals, Minerals, and Chemicals, or CCCMC, recently indicated that it was going to devise its own smelter audit program on cobalt. That move is a major threat to progress on cobalt issues, as it is very unlikely that the Chinese program by itself would allow credible, independent third-party audits to take place. “If they peel off,” as one electronics industry representative told me, “we lose the ability to influence Chinese smelters.”\(^{16}\) If it proceeds unhindered, this would fracture efforts to positively influence cobalt supply chains.

Although voluntary, there have also been promising pilot programs funded by industry at a handful of artisanal mines that have reduced child labor by up to 79% through training and corrective action plans with mining cooperatives.\(^{17}\) Furthermore, industry has developed criteria for improving mine safety, labor conditions, and the environment,\(^{18}\) including sourcing expectations, and the DRC government has its own set of standards which are quite high but not enforced. There needs to be agreement on these criteria between industry and the government, which are also currently voluntary.

The main obstacle to progress on scaling up such pilots and thus reducing child labor overall is the lack of will by the DRC government to formalize the artisanal cobalt sector (and that of other minerals). Formalization, or giving artisanal miners property rights and fully codifying and enforcing laws and regulations around their work, is instrumental to improving working conditions.\(^{19}\) The first key step in the DRC would be to designate many more artisanal mines as official mining zones, known by their French acronym ZEA.\(^{20}\)

But the juggernaut in the DRC is the continuation of the kleptocratic system, and the narrowing window for reform ahead of the elections. Too many corrupt politicians and middlemen continue to generate illicit wealth from the artisanal cobalt trade. And thus the government has only designated three to five such mines despite the existence of 50 to 80 viable artisanal cobalt mines.\(^{21}\) As one industry representative that I spoke to lamented, “We have a strong coalition of companies that are interested to source form artisanal mines and improve conditions, but no one has viable sites to work on. There aren’t any legal sites really.”

**Continuing Corruption**

The elephant in the room on cobalt and gold is the continuing – and worsening – system of kleptocracy in the DRC. Despite commitments by DRC President Felix Tshisekedi to combat corruption, massive amounts of money are still going missing from this sector. The DRC state auditor recently reported that $400 million went missing from the state-owned cobalt and copper company Gécamines last year.\(^{22}\) And Gécamines has not made any commitment to human rights and labor standards.
Importantly, the DRC government continues to make corrupt, non-transparent mining deals, including on cobalt. The biggest recent one was a $2 billion deal with Israeli businessman Dan Gertler in April 2022, who is under U.S. sanctions for his involvement in corruption. The deal, which has still not been made public despite DRC law to the contrary, has been widely criticized by Congolese and international civil society.\textsuperscript{23, 24} Despite looting the country for years, Gertler was rewarded by the government and will be paid $200 million in compensation and retain royalties from three major mines, representing approximately $200,000 per day.\textsuperscript{25}

Accountability for corruption has also fallen by the wayside. While certain officials involved in high-level corruption were removed from their posts in the beginning of the Tshisekedi administration, nothing has come of the investigations, and the officials have not faced justice. Members of former President Joseph Kabila’s family and entourage having been replaced by new actors and/or close collaborators of Tshisekedi who are allegedly involved in minerals smuggling, or the fraudulent transfer of mining, oil, and forestry concessions.\textsuperscript{26} And there has been no action taken yet since the publication of the significant corruption exposés of Congo Hold-Up by The Sentry and several other organizations. For example, a minister in office was clearly named in the Congo Hold-Up reports, yet no action has been taken. And reports by the Sentry showed that a Chinese middleman paid off Congolese officials to grease a massive deal between Chinese state-owned firms and the government, and how then-President Kabila’s brother Francis Selemani bought luxury homes in the United States and South Africa, it appears at least partly using government funds illicitly.\textsuperscript{27, 28}

Elections

It is also important to not lose sight of the forest for the trees in the DRC. One critically important way to combat the kleptocratic system and its consequences of child labor is through free and fair elections. Elections are supposed to occur in 2023 according to the DRC constitution, but it is becoming increasingly clear that the vote will likely not happen on time or will be anywhere close to credible despite government commitments to the contrary at the U.S. Summit for Democracy last December.\textsuperscript{29} In March, The Sentry joined 62 civil society organizations and experts to call for free, credible, and transparent elections to be held in 2023 and for the United States and European Union to sanction individuals who obstruct the democratic process.\textsuperscript{30}

Leadership or Lack thereof: Tesla

What is needed most to overcome the obstacles on child labor and mining corruption in the DRC is leadership, from corporations that use cobalt, from the DRC government, and from the U.S. government as a highly influential partner. On the corporate side, no other company represents electric vehicles more iconically than Tesla, and yet its leadership has been notoriously absent on the stage of cobalt and fighting child labor and corruption. I would like to briefly contrast Tesla’s actions with that of Intel, which was the first corporate leader in the fight against conflict minerals a decade ago, following activist and Congressional pressure.

In the early 2010s, Intel, as the world’s largest commercial user of tantalum,\textsuperscript{31} led an electronics industry work group to set up the first-ever audits of the key chokepoint in conflict minerals supply chains, minerals smelters. It first led industry groups to negotiate an audit system for tantalum, known then as the Conflict-Free Smelter Program, and then mounted multiple high-level visits to China and other countries to get the tungsten and tin industries on board with the auditing system despite their resistance. Intel executives
committed in 2011 to manufacture the world’s first validated conflict-free microprocessor by 2013, a monumental challenge. They succeeded. Intel then went on to ensure that 100% of its smelters were verifiably conflict-free, and Apple, Google, and others followed suit.

Meanwhile, Tesla, which leads U.S. sales in electric vehicles by a 7 to 1 margin, and is one of the biggest users of cobalt worldwide, has been all but absent on child labor and corruption. Instead of tackling the problems head on, the company’s focus has been on designing cobalt out of its supply chain, thus essentially avoiding the child labor and corruption issues altogether. In fact, Tesla announced it was partnering with mining giant Glencore to source cobalt directly, right at the time that Glencore was under investigation by the U.S. Department of Justice, the UK, Switzerland, and Canada for bribery or other illicit practices. Bloomberg even reported that sanctioned tycoon Dan Gertler would benefit from the deal. It was shocking. Despite the massive known problems of cobalt and the hard work of the industry association Responsible Minerals Initiative on them, Tesla does not sit and on the steering committee of the association. And despite the fact that several leading companies now source from 100% conflict-free smelters, Tesla is still stuck at 83%. Sure, Tesla has gone through the motions, contributing to several cobalt groups and being an RMI member along with 462 other companies, but its leadership has been notoriously absent.

Solutions

Of course, Tesla cannot solve the thorny problems of cobalt on its own. We also need stronger leadership from the U.S. and Congolese governments. But if we are to actually address this solvable problem, all three must take on a greater role, and Congress has a very important role to play as a catalyst for reform.

1. Transparency: Adding Cobalt to Dodd-Frank & Negotiating a Credible Auditing Program

Transparency in the cobalt supply chain is critically important, and a necessary ingredient for addressing the key challenges. To that end, Congress should consider expanding the conflict minerals section of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Section 1502, to include cobalt and child labor, coupled with authorizing key artisanal mining livelihoods support programs from USAID. That tweaked alone would catalyze action. It would help drive best practices in the auto and electronics industries, force companies to put more pressure on their suppliers to get all smelters to be audited, including the crude refiners based in the DRC that have very little transparency. The livelihoods piece would be a critical accompaniment to the legislation to promote responsible sourcing from the DRC.

Industry must tackle the other major threat to transparency: Chinese smelters. Tesla, Apple, Google, and other key cobalt using companies should send high-level representatives to China to negotiate an agreement with the key Chinese players on cobalt, CCCMC and China Minmetals Corporation, to create a credible electronics industry/Chinese auditing program for all smelters. The London Metals Exchange could also assist. The agreement should incorporate the lessons of conflict minerals smelter audit programs by allowing smelters an implementation period, so the smelters do not feel like they will be blacklisted immediately. The companies should either urge all smelters to participate in RMI audits or come to an agreement with the CCCMC to have joint oversight over the audits. That could be through the sharing of auditors or ensuring that RMI auditors are part of the CCCMC audits.

Third, electronics and automotive companies should use supply chain leverage to increase contract and subcontract transparency, which would significantly combat corruption. This includes obtaining and
publishing the beneficial ownership structures of the mining companies from which they source cobalt, including joint venture partners; requiring producers and suppliers to publish production contracts; requiring all producers of cobalt to identify all contractors and subcontractors that provide services in excess of a reasonable threshold (e.g. $100,000) to the producer; and requiring disclosure of payments to governments. As part of this, end user companies should require mine operators in the DRC to hire the majority of their Congolese workforce directly, not through subcontractors, and pay living wage and ensure healthcare is provided.

2. Consequences for illicit actors: Sanctions and Investigations

The kleptocratic system in the DRC will continue indefinitely unless there are serious consequences for corrupt activities. The U.S. Department of the Treasury should build on its sanctions of businessmen Dan Gertler and Alain Goetz (for involvement in the conflict gold trade) and investigate and sanction the international networks which facilitate corruption, which have been identified in recent Congo Hold-Up and other key reports, including key Chinese middlemen and companies and Western businessmen, as well as the most influential members of Kabila’s network that are still actively facilitating corruption as well as Tshisekedi’s entourage involved in corrupt deals.

The U.S. government should also urge the DRC government to publish the recent Dan Gertler contract and open law enforcement investigations based on existing independent reports as the ones produced by the Congo Hold-Up consortium and supporting the establishment of a transitional justice mechanism.

3. Artisanal mining formalization

There is an urgent need to get legal spaces for artisanal miners to work in the DRC, otherwise the corruption and human rights abuses will continue unabated. The U.S. Department of State and high-level representatives from Tesla and other key end-user companies should strongly urge the DRC Mining Ministry to create many more artisanal mining zones (ZEAs) at cobalt mines and to take other key formalization steps such as agreeing to a practical set of criteria for mine safety and rights that will be enforced, a standard for improving artisanal mining conditions. It will take creative initiatives here to work with the DRC government to overcome the corrupt interests and designate more zones. These could include setting up an award for the most responsible, child labor-free mine, inviting officials to high-level ceremonies abroad, possibly bringing celebrities to showcase the responsible mines, partnering with development partners to build other infrastructure in the province, etc.

4. Elections

Last but not least, the U.S. government, together with key European allies such as Belgium, should free, credible, and transparent elections to be held on time in 2023. The U.S. Department of the Treasury, together with the European Union, should sanction individuals who obstruct the democratic process, as well as strongly supporting Congolese civil society in civic education and electoral observation.
In 2021, EVs made up 34% of demand in 2021, followed by smartphones at 15% and laptops and desktop computers at 9%. Ford and VW also plan to offer LFP batteries, as do Panasonic and Samsung. “LFP battery packs are able to be charged to 100%, are less expensive to produce, can be charged quickly and also have high-

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2. Sentry interview with industry expert, July 2022.
5. The report was written by corporate watchdog Rights and Accountability in Development (RAID) and the Centre d’Aide Juridico Judiciaire (CAJJ), a Congolese legal aid center specialized in labor rights. “[The report] shows dire conditions for many Congolese workers in the industrial mines, often characterised by widespread exploitation and labour rights abuses. Many workers do not earn a “living wage” – the minimum remuneration to afford a decent standard of living – have little or no health provision, and far too often are subjected to excessive working hours, unsafe working conditions, degrading treatment, discrimination and racism. With the Americans, they were taking safety seriously. They were also very careful. But with the Chinese, they’re the first ones to violate safety rules. It’s more difficult for people to follow rules if they [the managers] are not doing it themselves – not wearing helmets, not being careful, using phones, etc. It’s less organised… and there was clearly an increase in the number of accidents. With the Americans, we could do 60 days without any incident. With the Chinese, it is more like 25-30 days. The Chinese are not going to stop the production for protection or safety reasons.” – South African worker. … Workers described a “colonial era” level of discrimination – being kicked, slapped, beaten with sticks, insulted, shouted at, or sometimes pulled around by their ear, when they were not able to understand instructions in Mandarin, made errors or refused to undertake dangerous tasks. In most cases, those who countered this treatment were immediately dismissed without pay.” RAID and CAJJ, “The Road to Ruin? Electric vehicles and workers’ rights abuses at DR Congo’s industrial cobalt mines,” November 2021, available at [https://www.raid-uk.org/sites/default/files/report_road_to_ruin_evs_cobalt_workers_nov_2021.pdf](https://www.raid-uk.org/sites/default/files/report_road_to_ruin_evs_cobalt_workers_nov_2021.pdf)
7. Congo Research Group, “All the President’s Wealth” (July 2017), p. 11: “There are limits on how the President’s Republican Guard can be legally used, according to the 2011 Law on the Armed Forces, which limits the tasks of the guard. It says the force can only be used to protect the president and distinguished guests of the republic, presidential facilities, and provide an honor guard and escorts at the level of the presidency. It does not say the elite unit is allowed to protect businesses or mines belonging to the president’s family.” Available at [https://allthewealth.congoreserachgroup.org/dist/assets/all-the-presidents-wealth-ENG.pdf](https://allthewealth.congoreserachgroup.org/dist/assets/all-the-presidents-wealth-ENG.pdf).
8. Enough Project focus group meeting with civil society members, Kolwezi, Democratic Republic of Congo, February 2018.
11. Of these, there are 75 major refiners, according to industry experts. Responsible Minerals Initiative, “Cobalt Refiners List,” July 12, 2022, available at [https://www.responsiblemineralsinitiative.org/cobalt-refiners-list](https://www.responsiblemineralsinitiative.org/cobalt-refiners-list)
12. EVs made up 34% of demand in 2021, followed by smartphones at 15% and laptops and desktop computers at 9%. [https://mobilesyrup.com/2022/05/18/electric-vehicle-batteries-ate-up-34-percent-of-global-demand-of-cobalt-in-2021/#:~:text=According%20to%20the%20report%2C%20in%20percent%20of%20the%20total%20demand.](https://mobilesyrup.com/2022/05/18/electric-vehicle-batteries-ate-up-34-percent-of-global-demand-of-cobalt-in-2021/#:~:text=According%20to%20the%20report%2C%20in%20percent%20of%20the%20total%20demand.)
cycle life, but one downside is lower density.” [Link]


15 Responsible Minerals Initiative, “Cobalt Refiners List,” July 12, 2022, available at [Link]

16 Sentry interview with industry expert, July 2022.


19 For example, see Dorothee Bauman-Pauly, “Ethics of Cobalt mining must be taken seriously by traders,” Financial Times, March 21, 2022, available at [Link]. The best strategy for improving mine safety and reducing child labour is formalisation of artisanal mining. This means creating a common set of standards and metrics to govern the mining process, consistent with international labour and human rights standards. The rules need to establish measurable benchmarks, such as tunnel depth and adequate tunnel ventilation.”

20 Zone d’exploitation artisanale, or artisanal mining zone.

21 Sentry interview with industry expert, July 2022.

22 Stanis Budjaka and Aaron Ross, “Congo auditor says $400 million went missing from state mining company,” Reuters, June 4, 2022, available at [Link].

23 Congo is Not for Sale coalition, “DÉCLARATION CONCERNANT LA TABLE RONDE SUR L’ACCORD ENTRE LE GROUPE VENTORA DE DAN GERTLER ET LA RDC,” April 2022, available at [Link]

24 The Sentry, “Secrecy Decried in Deal Between Sanctioned Mining Tycoon Dan Gertler and DR Congo,” March 1, 2022, available at [Link].

25 Congo is Not for Sale coalition, “DÉCLARATION CONCERNANT LA TABLE RONDE SUR L’ACCORD ENTRE LE GROUPE VENTORA DE DAN GERTLER ET LA RDC,” April 2022, available at [Link]


29 The DRC government committed to organizing elections within the constitutional deadlines, as well as other anti-corruption reforms. State Department, “The Summit for Democracy: Leaders’ Commitments,” December 2021, available at [Link].


32 Tesla accounted for 61% of EV sales in the US in 2021, while the next ranked company was Ford at 8%, [Link].


Responsible Minerals Initiative Member list, July 12, 2022, available at https://www.responsiblemineralsinitiative.org/about/members-and-collaborations/