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HUMAN
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Asleep at the Wheel

Car Companies' Complicity in Forced Labor in China



Asleep at the Wheel

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Summary

The car industry is fulfilling Chinese President Xi Jinping's 2014 ambition to transform the country into "an automobile power." Domestic and foreign manufacturers in China produced and exported more cars than any other country in the world in 2023. Chinese companies also produce and export billions of dollars of parts used by global carmakers, from electric vehicle batteries to alloy wheels. Many of the industry's biggest brands, including BYD, General Motors, Tesla, Toyota, and Volkswagen, use China as a manufacturing and supplier base, a vital sales market, or both. Cars made in China are increasingly on the streets of Brussels, London, Mexico City, Sydney, and even New York.

But while the Chinese government has welcomed car companies' investments on its own terms, it has so far shown hostility to the human rights and responsible sourcing policies many carmakers profess to apply across their businesses. Almost a tenth of the world's aluminum, a key material for car manufacturing, is produced in the Xinjiang Uyghur Autonomous Region (Xinjiang or XUAR), a region in northwestern China, where the Chinese government is conducting a long-running campaign of repression against Uyghurs and other Turkic Muslim communities. Since 2017, Chinese authorities have perpetrated crimes against humanity in Xinjiang, including arbitrary detentions of an estimated one million people at the height of the crackdown, torture, enforced disappearances, mass surveillance, cultural and religious persecution, separation of families, sexual violence, and violations of reproductive rights, as well as subjecting Uyghurs and other Turkic Muslim communities to forced labor inside and outside Xinjiang.

Despite the risk of exposure to forced labor through Xinjiang's aluminum, some car manufacturers in China have succumbed to government pressure to apply weaker human rights and responsible sourcing standards at their Chinese joint ventures than in their global operations. Most companies have done too little to map their supply chains for aluminum parts and identify and address potential links to Xinjiang. Confronted with an opaque aluminum industry and the threat of Chinese government reprisals for investigating links to Xinjiang, carmakers in many cases remain unaware of the extent of their exposure to forced labor. Consumers should as a result have little confidence that they are purchasing and driving vehicles free from links to abuses in Xinjiang.

Aluminum is used in dozens of automotive parts, from engine blocks and vehicle frames to wheels and battery foils. Carmakers accounted for approximately 18 percent of all aluminum consumed worldwide in 2021, according to the International Aluminum Institute (IAI), an aluminum industry group. Aluminum is particularly important to electric vehicles, with its light weight increasing the distance a car can travel before being recharged. The auto industry's demand for aluminum was projected to double between 2019 and 2050, according to the IAI, with China, which produced almost 60 percent of global supply in 2022, poised to benefit from the increased demand.

The Chinese government has made Xinjiang a hub for heavy industry, including aluminum production, even as rights violations against Uyghurs have increased. Xinjiang's aluminum production has grown from approximately one million tons in 2010 to six million in 2022. More than 15 percent of the aluminum produced in China, or 9 percent of global supply, now comes from the region. Xinjiang produces more aluminum than any country outside of China.

Xinjiang's aluminum smelters use the region's abundant coal supplies to produce the large quantities of electricity needed for aluminum production. Xinjiang possesses none of the bauxite ore needed to make aluminum. Instead, alumina, an intermediate product produced from bauxite, is shipped thousands of kilometers to the XUAR from elsewhere in China for conversion to aluminum using cheap coal power. Globally, the aluminum industry emits about one billion tons of carbon dioxide (CO₂) equivalent each year, around 2 percent of global greenhouse gas emissions, in large part due to its heavy reliance on coal-fired electricity. Chinese producers emit 23 percent more CO₂ equivalent than the global average.

The link between Xinjiang, the aluminum industry, and forced labor is Chinese government-backed labor transfer programs, which coerce Uyghurs and members of other Turkic Muslim communities into jobs in Xinjiang and other regions.

Independent field research on labor transfers in Xinjiang is not currently possible due to Chinese government restrictions across the country and within Xinjiang specifically. However, Sheffield Hallam University and NomoGaia, a nongovernmental organization, and Horizon Advisory, a consultancy group, issued reports in 2022 that used online Chinese state media articles, company reports, and government statements to document

aluminum smelters' participation in labor transfers. Between January and November 2023, Human Rights Watch reviewed the source material referenced in the reports as well as additional media reporting and company and government statements to verify and assess the links between Xinjiang's aluminum industry and labor transfers.

This research provided credible evidence that aluminum producers in Xinjiang are participating in labor transfers. Xinjiang East Hope Nonferrous Metals, for example, a major aluminum smelter, received labor transfers targeting Uyghurs and other Turkic Muslim communities in 2017, 2018, and 2020. Another two of Xinjiang's largest aluminum producers, Tianshan Aluminum and Xinfu Group Xinjiang, are closely linked to the Xinjiang Production and Construction Corps (XPCC), a military-economic entity that plays a key role in the region's repression of Uyghurs. The XPCC holds stakes in thousands of companies in Xinjiang that frequently both participate in and facilitate labor transfers. Both Xinfu Group Xinjiang and Tianshan Aluminum are located in XPCC-controlled industrial zones.

The aluminum industry's reliance on Xinjiang's coal creates other links to forced labor. Xinjiang Energy (Group), for example, a state-owned energy company that supplies coal to Tianshan Aluminum and co-owns a coal mining company with Xinjiang East Hope Nonferrous Metals, has received labor transfer workers at its coal mines. In a 2020 report that typifies the way company and media documents describe labor transfers as benefitting Uyghurs, Xinjiang Energy (Group) provides a glowing account of the life of one labor transfer worker, praising the company's efforts to tackle his homesickness and separation from his family. Another Xinjiang smelter, Xinjiang Zhonghe, co-owns a coal mining company, Tianchi Energy, which participated in labor transfers in 2019 and 2023.

Compared to other areas of China, Xinjiang possesses relatively little capacity to process the metal produced by aluminum smelters into more sophisticated alloys or to produce the semi-fabricated products, like aluminum sheet or foil, that car companies and other industries use in manufacturing. As a result, most of the aluminum produced in the XUAR is transported to other provinces in China as "unalloyed" ingots, blocks of unprocessed aluminum metal that can later be remelted to make a desired alloy. Once an aluminum ingot has been melted and mixed with other materials, it is impossible to determine whether or how much of it came from Xinjiang, enabling tainted aluminum to enter domestic and global supply chains undetected.

Aluminum ingots from Xinjiang are also bought and sold by commodities traders, further obscuring the links between Xinjiang and global supply chains. Document filings on behalf of Tianshan Aluminum, for example, suggest that it has sold aluminum to Chinalco, a Chinese state-run aluminum company that operates an extensive trading business. The filings also state that Tianshan Aluminum has sold aluminum to international traders Glencore and Trafigura. Glencore told Human Rights Watch in January 2024 that “we purchase aluminum from the Tianshan smelter in the Xinjiang province, which is sold to Chinese domestic customers.” The company also stated that, “we recognize the risks of forced labor associated with Xinjiang,” and said it had conducted due diligence over the Tianshan smelter and that “further enhanced due diligence will be conducted in 2024.” Neither Chinalco nor Trafigura responded to questions from Human Rights Watch.

The bulk of China’s aluminum is consumed domestically, including by the country’s car industry. The risk of exposure to aluminum from Xinjiang is therefore highest for carmakers’ manufacturing operations in China, including global carmakers’ China-based factories and joint ventures. Chinese companies, however, also manufacture and export aluminum-heavy parts like alloy wheels and the foil, casings, and trays used for electric vehicle batteries. Carmakers both inside and outside China sourcing parts containing aluminum produced in China could be sourcing aluminum that originated in Xinjiang.

Car companies have a responsibility under the United Nations Guiding Principles on Business and Human Rights (“the Guiding Principles”) to identify, prevent, and mitigate the presence of forced labor and other human rights abuses in their supply chains. The current level of repression and surveillance in Xinjiang, including threats to workers and auditors, makes it impossible for companies to credibly investigate allegations of forced labor and consider potential remediation. Car companies should instead map their supply chains and disengage from any supplier found to source parts or materials from Xinjiang.

In July 2023, Human Rights Watch wrote to BYD (China), General Motors (US), Tesla (US), Toyota (Japan), and Volkswagen (Germany) to obtain information about their efforts to map their aluminum supply chains and eliminate exposure to forced labor in Xinjiang. Volkswagen met with Human Rights Watch to discuss the report and subsequently provided on-the-record responses to questions discussed in that meeting. General Motors and Tesla provided written responses to Human Rights Watch. Toyota and BYD did not

respond. Human Rights Watch also reviewed the five companies' responsible sourcing policies and public statements regarding efforts to eliminate links to forced labor.

Three of the car companies contacted by Human Rights Watch – General Motors, Toyota, and Volkswagen – operate in China through joint ventures, holding up to a 50 percent share of Chinese companies that manufacture and sell cars in China under the carmakers' global brand. A subsidiary of Volkswagen's joint venture with SAIC, a Chinese carmaker, operates a facility in Ürümqi, Xinjiang's capital. Volkswagen has said it is not a manufacturing plant and does not source raw materials from the region. Uyghur rights groups have underscored that SAIC-Volkswagen's manufacturing plants elsewhere in China might still be sourcing materials, including aluminum, from Xinjiang.

Volkswagen and other carmakers have argued, however, that they have limited control over their joint ventures' operations and supply chains. Volkswagen told Human Rights Watch that the company is not legally responsible under Germany's supply chain law for human rights impacts in their Chinese joint ventures' supply chain because the law only covers subsidiaries in which companies have "decisive influence." Volkswagen, which holds 50 percent of the equity of its joint venture with SAIC, said it does not have "decisive influence" in SAIC-Volkswagen because it ceded operational control to SAIC when it created the joint venture. German government guidance, however, sets out a range of criteria for determining whether a company has "decisive influence" over a subsidiary, including "whether the subsidiary manufactures and exploits the same products or provides the same services as the parent company." SAIC-Volkswagen manufactures cars for the Chinese market under the Volkswagen brand.

Furthermore, companies have a responsibility under the UN Guiding Principles to use whatever leverage they have in a joint venture to ensure it prevents and mitigates the risk of forced labor and other human rights abuses in its supply chain. The German government should make clear that companies have a similar obligation in joint ventures under the country's supply chain law.

Volkswagen said that "it assumes responsibility under the UN Guiding Principles to use its leverage over its Chinese joint ventures to address the risk of human rights abuses." When queried by Human Rights Watch, however, Volkswagen did not provide further details of how it oversees SAIC's sourcing practices. Indeed, when asked what steps it takes to

ensure SAIC-Volkswagen is not purchasing aluminum from a producer linked to Xinjiang, Volkswagen stated: “We have no transparency about the supplier relationships of the non-controlled shareholding SAIC-Volkswagen. We therefore ask for your understanding that we do not make any statements about this question.”

General Motors also stated in its 2022 annual report that it had limited control over its joint ventures, noting that, “because we share ownership and management with one or more parties, we may have limited control over the actions of a joint venture, particularly when we own a minority interest. As a result, we may be unable to prevent violations of applicable laws or other misconduct by a joint venture.”

General Motors, Toyota, and BYD did not respond to questions about oversight of Chinese joint ventures, their supply chain mapping, or the origin of their aluminum. General Motors instead told Human Rights Watch that, “GM is committed to conducting due diligence and working collaboratively with industry partners, stakeholders, and organizations to address any potential risks related to forced labor in our supply chain.”

Tesla, which does not operate in China through a joint venture but builds cars for China’s domestic market and for export at its Shanghai Gigafactory, provided the most detailed information to Human Rights Watch about its aluminum sourcing. The company stated that it had intensified supply chain mapping for aluminum, “driven in part by global trade regulations to combat forced labor.” Tesla said that it had, “in several cases”, mapped its supply chain back to the mining level and had not found evidence of forced labor. The company did not, however, specify how much of the aluminum in its cars remains of unknown origin and so could be linked to Xinjiang.

Volkswagen, despite disclosing very limited information on its aluminum sourcing at its Chinese joint venture, did provide details of sourcing practices at its operations outside China. The company told Human Rights Watch that, while it has prioritized supply chain mapping for certain aluminum parts, it still has “blind spots” over the origin of the aluminum in its cars. The company also said that supply chain mapping for aluminum is a challenge because of the sheer number of aluminum suppliers and the number of intermediaries in the supply chain.

An aluminum expert at another car company told Human Rights Watch that tracing the origin of aluminum is “is not straightforward,” and that, “frequently suppliers cannot or do not disclose their entire supply chain or are reluctant to do so.” He also said that “suppliers often use multiple sources for aluminum to ensure supply security or compensate for quality differences. In addition, the exact origin is often unknown or intentionally concealed when obtaining material through traders.” An IAI representative told Human Rights Watch in November 2023 that it is, “likely that a much higher percentage of aluminum supply could be traced back to the smelter, refinery, and mine than currently is,” but that “a key obstacle [to increased traceability] is the lack of resources or finances to justify/fund the systems and data collection and data transfer that is required to provide full traceability.”

In response to Human Rights Watch, Tesla and Volkswagen also both referenced their collaboration with the Aluminium Stewardship Initiative (ASI), an audit program that assesses direct and indirect suppliers against social and environmental standards, including their responses to forced labor. ASI has not certified smelters in Xinjiang, but it has given manufacturers of aluminum products elsewhere in China a passing grade for their sourcing practices even where evidence suggests those companies may have sourced aluminum from Xinjiang.

ASI told Human Rights Watch that in 2022 it had conducted outreach to all its members over the risks of forced labor and “our understanding is that supply chains were adjusted to meet the United States’ Uyghur Forced Labor Prevention Act (UFLPA), which came into effect from mid-2022, and international customer expectations.” ASI said that audits under its standards include an analysis of companies’ human rights and supply chain due diligence. However, when asked about an audit of a Chinese manufacturer with evidence of past links to Xinjiang, ASI stated that “reference to ‘Uyghur forced labor’ was likely not incorporated in the audit report due to political sensitivities in China on this specific issue.” An aluminum industry expert and researcher on forced labor, who is a member of ASI’s Standards Committee, told Human Rights Watch that using the political sensitivity of China’s abuses in Xinjiang as a reason not to discuss forced labor in audit reports, “gives the Chinese government carte blanche to quash discussion of abuses in the Uyghur region.”

Car industry staff and responsible sourcing experts, who wished to remain anonymous, told Human Rights Watch that the threat of Chinese government retaliation deterred

companies from talking to their China-based suppliers and joint ventures about their potential links to forced labor in Xinjiang. The Chinese government has initiated criminal investigations targeting companies or individuals that assist businesses to investigate their potential links to human rights abuses in China, including forced labor in Xinjiang. The government in April 2023 also passed an expanded counter-espionage law that experts have warned could increase the government's power to investigate and prosecute foreign firms conducting research on local markets and business partners.

But while the Chinese government is hostile to companies' efforts to investigate forced labor, other governments are passing laws that require companies to respect human rights in their supply chains. The European Union, Germany, France, and other jurisdictions have passed or are planning laws that require companies to conduct "due diligence" by identifying, preventing, mitigating, and remedying human rights abuses in their operations and supply chains. The European Commission, in explaining the need for the EU's own due diligence law in 2019, stated that it "will play an essential role in tackling the use of forced labor [in] global value chains."

Governments are also using import restrictions to prevent products linked to forced labor from entering their markets. In the United States, which has a longstanding prohibition on imports produced by forced labor, the December 2021 passage of the UFLPA created a presumption that goods made in whole or in part in Xinjiang, or produced by entities in China linked to forced labor, are not eligible to be imported into the United States. The European Union is currently preparing its own law prohibiting the import or export of any product linked to forced labor, whether from Xinjiang or elsewhere.

The shift towards legal obligations to eliminate forced labor in supply chains is forcing companies to reconcile their own professed commitments to human rights, and pressure from regulators at home, with the Chinese government's resistance to any scrutiny of its repression in Xinjiang. The European Center for Constitutional and Human Rights, a nongovernmental organization, in June 2023 filed a complaint with a German regulator arguing that German companies Volkswagen, BMW, and Mercedes-Benz were violating their obligations under Germany's due diligence law by failing to tackle supply chain links to forced labor in Xinjiang for both aluminum and other materials. US customs officials have detained a limited number of aluminum products for further investigation over risk of

links to forced labor and have warned importers that, unless they can provide the origin of their aluminum, their products risk being detained.

In interviews with Human Rights Watch, car industry staff and responsible sourcing experts acknowledged that there were steps they could take to push Chinese suppliers towards more supply chain transparency. Car companies, for example, could require business partners to disclose their supply chains for a range of reasons beyond forced labor risks, including to better quantify and lower the greenhouse gas emissions associated with aluminum production. Carmakers and their first or second tier suppliers can also source more aluminum from smelters outside Xinjiang directly, providing direct oversight of the origin of the aluminum and eliminating any link to the XUAR.

Governments can also do more to make clear to Chinese companies, and their Chinese government backers, of the need to end repression in Xinjiang and allow independent investigators unfettered access to the region. The current opacity of global supply chains obscures potential links to Xinjiang and enables companies participating in forced labor to avoid scrutiny from customs officials or regulators. Governments, including the US and EU, should combine responsible sourcing laws and import restrictions with legislation requiring companies to disclose their supply chains. For products, like aluminum, that bring a high risk of links to Xinjiang, companies should be required to reveal the sources of their raw materials to demonstrate they are free from links to forced labor. Due diligence laws should also not enable companies to rely on flawed audits and certifications as a substitute for their own supply chain mapping and due diligence and should require companies to address human rights risks in their joint ventures' supply chain.

With China on the road to becoming a dominant player in the global car industry, governments need to ensure that companies building cars in China or sourcing parts from Chinese suppliers identify and eliminate links to repression in Xinjiang. Car companies operating in or sourcing from China should be held to the same human rights and labor standards they apply across all their global operations. Doing business in China should not mean putting human rights protections in reverse.

Recommendations

To the Chinese Government

- Eliminate coercive labor transfers and other forms of forced labor in Xinjiang and across China.
- Grant free and unrestricted access to Xinjiang to independent human rights organizations and United Nations experts.

To Car Companies

- Take measures necessary to meet responsibilities under the United Nations Guiding Principles on Business and Human Rights to identify, prevent, and mitigate the presence of forced labor and other human rights abuses in supply chains.
- Unless and until due diligence is possible in Xinjiang, immediately disengage from any direct supplier in Xinjiang.
- Responsibly disengage from any supplier or sub-supplier outside Xinjiang that sources aluminum directly or indirectly from the region.
 - Require suppliers, including commodities traders, to disclose the source of their aluminum, including the location of the smelters that produced it.
 - Require suppliers and sub-suppliers to, within a specified period not to exceed 12 months, responsibly disengage from companies that produce or source aluminum within Xinjiang.
 - Work with suppliers to identify alternative aluminum sources, including through renegotiating supply contracts and adjusting pricing if necessary.
 - When discussing and responding to forced labor risks, work with suppliers to develop procedures to respond to threats, risks, or actual instances of retaliation from the Chinese government or other actors against the company, its suppliers, or their staff.
 - Responsibly disengage from any supplier unwilling to take the above steps.
- Map aluminum supply chains to the level of smelters, alumina refineries, and bauxite mines. This should include:

- An analysis of the amount of unalloyed aluminum ingots and alloyed ingots the company sources directly annually and the smelters (country, location, company name) where the aluminum in those ingots was produced.
- Mapping of the semi-fabricated aluminum products (for example, sheet, foil, and extrusions) the company purchases, the volume of aluminum purchased in semi-fabricated form annually, and the smelters and processing plants (country, location, company name) where the aluminum in those products was produced.
- Development of a plan and timeline through which to map the company's entire aluminum supply chain, to the smelter, refinery, and mine level, for all parts and products containing aluminum.
- Report annually on efforts to map and disclose aluminum supply chains, including:
 - Data on the amount of aluminum the company purchases, and in what form. This should include disaggregated data on primary versus secondary (recycled) aluminum and details on the company's key aluminum inputs (alloyed ingots, aluminum sheet, etc.).
 - A detailed description of the steps taken to map its aluminum supply chain, if necessary with separate sections focused on supply chain mapping to account for the different types of aluminum sourced by the company (e.g., primary versus secondary, alloyed ingots, aluminum sheet, etc.).
 - Disclosure of the sources of the company's aluminum, including the countries and locations of the smelters, refineries, and mines in the company's supply chain.
- Ensure that the company's joint ventures implement the supply chain mapping, disclosure, disengagement, and due diligence measures described above.
 - Negotiate clear, contractually binding obligations that require joint ventures to develop and implement responsible sourcing policies that meet or exceed the company's own responsible sourcing and human rights guidelines.
 - If joint venture partners repeatedly refuse to take the steps necessary to eliminate risk of forced labor in supply chains, responsibly disengage from the operation.

- Describe publicly the steps that the company is taking to ensure that joint ventures respect human rights in their operations and supply chains.
- Avoid reliance on certification initiatives, including the Aluminium Stewardship Initiative, as an indicator of whether suppliers are sourcing responsibly and addressing the risk of links to forced labor in Xinjiang.
- Do not conduct or commission audits in Xinjiang unless the human rights situation improves to such an extent that it is possible for auditors to have unfettered access to the region and freedom to conduct interviews with workers without risk of retaliation against workers or auditors.
- Establish and maintain an effective and accessible grievance mechanism that nongovernmental organizations can access to raise concerns about human rights abuses in the company's supply chain, including forced labor in Xinjiang. Even if located and managed outside China, any such grievance mechanism should have procedures in place to address the risk of retaliation against complainants or other actors by the Chinese government.
- Establish ambitious, measurable, science-based targets for sourcing aluminum, inside and outside China, from renewable energy sources, consistent with limiting global warming to 1.5 degrees Celsius in line with the Paris Climate Agreement.

To the European Union and its Member States:

- Ensure that the proposed forced labor regulation:
 - Includes a mechanism for restricting imports from or exports to regions with pervasive state-imposed forced labor.
 - Introduces a presumption of forced labor on specific product groups, including aluminum, from specified countries or regions with high risks of state-imposed forced labor, including Xinjiang, with the presumption leading to an automatic ban of these specific product groups from being imported or exported.
 - Integrates a requirement for companies to disclose, at a minimum during investigations, their direct and indirect suppliers to demonstrate the origin of goods and raw materials.
 - Supports the need for transparency and sharing of supply chain and customs data across EU member states for effective enforcement of the regulation.

- Ensure that the proposed EU Corporate Sustainability Due Diligence Directive acknowledges the limitations of businesses being able to carry out remediation in situations of state-imposed forced labor and that national authorities require companies to responsibly disengage from doing business in areas where there is state-imposed forced labor.

To Germany

- Issue guidance from the Federal Ministry of Labor and Social Affairs clarifying companies' obligations in joint ventures under Germany's supply chain law, particularly for joint ventures in which companies do not have a decisive influence. Specifically:
 - Make clear that companies have an obligation to use their influence over their joint ventures to tackle human rights risks in their joint ventures' operations and supply chain.
 - State that, where companies are unable to use their influence to address human rights violations in their joint ventures' operations or supply chain, companies should either renegotiate the terms of the joint venture to increase their leverage or disengage from the joint venture in question.

To the United States

- The US Forced Labor Enforcement Task Force should make aluminum a "high-priority sector" under the Uyghur Forced Labor Prevention Act.
- Enact legislation that requires that listed companies file a report annually with the Securities and Exchange Commission stating that they do not source aluminum and other high-risk commodities (e.g. polysilicon or silicon) from Xinjiang, and that requires the companies to list the countries, smelters, and refineries where they source the material.

To other Governments, including Australia, Canada, Japan, Mexico, South Korea, and the United Kingdom:

- Pass and enforce laws banning imports linked to forced labor that include a presumption of forced labor for products, including aluminum, from specified

countries or regions with high-risks of state-imposed forced labor, including Xinjiang.

- Enact legislation that requires companies to disclose their supply chains for commodities with a high-risk of links to human rights abuses, including forced labor in Xinjiang.

Methodology

Chinese government restrictions on the ability to freely and independently investigate human rights violations mean that field research on forced labor within Xinjiang or on aluminum supply chains is not currently possible. This report is out of necessity primarily based on online research relating to aluminum companies' operations in Xinjiang and the flow of aluminum from the region into the wider supply chain. This includes review of company statements, annual reports, media articles, and Chinese government documents.

The report focuses on aluminum rather than other minerals or metals because of the relatively high percentage of global aluminum (approximately 9 percent of global supply) produced in Xinjiang. It also builds on past research by Human Rights Watch on the human rights impacts of bauxite mining and aluminum production more broadly.¹

Human Rights Watch's research draws heavily from a December 2022 report by Sheffield Hallam University and NomoGaia, a nongovernmental organization, that documented the links between aluminum smelters in Xinjiang and major global carmakers.² It also builds on a report in April 2022 by Horizon Advisory, a consultancy group, that documented links between aluminum smelters in Xinjiang and labor transfer schemes.³ Between January and November 2023, Human Rights Watch reviewed the original sources referenced in these reports and also found and reviewed additional online media reporting and company statements relating to Xinjiang's aluminum industry, labor transfers, and car industry supply chains. Human Rights Watch also conducted its own research on links between Xinjiang's coal mining and coal power plants and labor transfers, as well as on links between coal power and the aluminum sector.

¹ Human Rights Watch, *"What Do We Get Out of It?": The Human Rights Impact of Bauxite Mining in Guinea*, (New York: Human Rights Watch, 2018), <https://www.hrw.org/report/2018/10/04/what-do-we-get-out-it/human-rights-impact-bauxite-mining-guinea>. Human Rights Watch, *Aluminum: The Car Industry's Blind Spot: Why Car Companies Should Address the Human Rights Impact of Aluminum Production*, (New York: Human Rights Watch, 2021), <https://www.hrw.org/report/2021/07/22/aluminum-car-industrys-blind-spot/why-car-companies-should-address-human-rights>.

² Laura T. Murphy, Kendyl Salcito, Yalkun Uluyol, Mia Rabkin, et al., "Driving Force: Automotive Supply Chains and Forced Labor in the Uyghur Region," Sheffield Hallam University Helena Kennedy Centre for International Justice, December 2023, <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/driving-force> (accessed December 30, 2023).

³ Horizon Advisory, "Forced Labor Risks in China's Aluminum Sector," April 2022, <https://www.horizonadvisory.org/backtobasics> (accessed December 30, 2023).

Although nongovernmental organizations have documented evidence of coercive labor transfers of Uyghurs from inside Xinjiang to other regions of China, Human Rights Watch's research did not investigate specific examples or analyze evidence of forced labor at aluminum smelters or other aluminum facilities outside Xinjiang.⁴ The report does, however, track the movement of aluminum from Xinjiang to other regions of China, linking China's broader aluminum industry with forced labor inside Xinjiang, and attempts to identify the risks of such tainted aluminum entering into automobile manufacturing supply chains.

In addition to online research, Human Rights Watch conducted interviews with 10 experts from the aluminum and automotive industries, including current and former company executives and responsible sourcing experts. All interviewees spoke to Human Rights Watch on condition of anonymity.

In July 2023, Human Rights Watch wrote to five automakers with operations both inside and outside China to ask them about their efforts to address risks of exposure to forced labor in Xinjiang, as well as their work to map and disclose their aluminum supply chains. The companies included three of the largest global makers of gasoline-powered cars – General Motors (United States), Toyota (Japan), and Volkswagen (Germany) – as well as the world's two largest electric vehicle makers – Tesla (United States) and BYD (China). These companies were chosen for their size, their significant manufacturing and sales presence in China, and their geographic diversity. Human Rights Watch also reviewed the five companies' responsible sourcing policies and public statements regarding efforts to eliminate links to forced labor.

The research in this report focuses on links between aluminum, forced labor, and the world's passenger car market. Although most of the car companies contacted in this report also manufacture commercial vehicles, as well as vans and trucks, the data in this report focuses on the passenger car market.

Of the five car companies we contacted, General Motors provided a written response. Volkswagen met with Human Rights Watch to discuss the report and subsequently provided on-the-record responses to questions discussed in that meeting. Toyota provided

⁴ See, for example, Australian Strategic Policy Institute, "Uyghurs for Sale: 'Re-education', forced labour and surveillance beyond Xinjiang," 2020, <https://www.aspi.org.au/report/uyghurs-sale> (accessed December 30, 2023).

no response. Tesla provided written responses to Human Rights Watch. BYD provided no response. Human Rights Watch also wrote to SAIC Motor, which operates joint ventures with Volkswagen and General Motors, but did not receive a response.

Human Rights Watch also sent emailed or faxed letters to the other companies referenced in this report requesting responses to the evidence presented.

Human Rights Watch wrote to the Aluminium Stewardship Initiative (ASI) about its auditing and certification process in aluminum supply chains. ASI provided a written response.

I. Background

Chinese Government Repression in Xinjiang

The Xinjiang Uyghur Autonomous Region (Xinjiang or XUAR) is located in China's northwest, bordering India, Pakistan, Afghanistan, Tajikistan, Kyrgyzstan, Kazakhstan, and Mongolia. Of Xinjiang's 25.9 million population, non-Han Chinese ethnic groups make up 14.9 million, including 11.7 million Uyghurs, according to the 2020 national census.⁵ Xinjiang's Uyghur, Kazakh, and Kyrgyz populations are ethnically Turkic, predominantly Muslim, and have their own languages. Some Uyghurs refer to the territory, which in Chinese means "New Dominion, as "the Uyghur region" or "East Turkestan."⁶

Except during a period of relative liberalization in the 1980s initiated by Deng Xiaoping, the Chinese government has since 1949 implemented policies that aim at integrating Xinjiang with China, including by large-scale Han Chinese migration to the region.⁷ These policies have marginalized Turkic Muslim communities.⁸ Protests, notably in the city of Ghulja (or Yining in Chinese) in 1997, and acts of anti-state violence by Uyghurs have prompted brutal government crackdowns, which in turn increased Uyghur resentment, resulting in a cycle of Uyghur resistance and state repression.⁹ After the September 11, 2001 attacks on the United States, the Chinese government sought to justify its crackdown on Uyghurs, including arbitrary arrests and detention, enforced disappearances, and restrictions on religious practice, as part of the "global war on terror."¹⁰

In 2014, the Chinese government escalated its repression in Xinjiang with the launch of the Strike Hard Campaign against Violent Terrorism (严厉打击暴力恐怖活动专项行动). The

⁵ *China Global Television Network*, "Graphics: Facts about Xinjiang's population and ethnic groups," September 2, 2022, <https://news.cgtn.com/news/2022-09-02/Graphics-Facts-about-Xinjiang-s-population-and-ethnic-groups-1cvVZvmul8/index.html#:~:text=The%20Xinjiang%20Uygur%20Autonomous%20Region,Han%20ethnic%20group%2010.9%20million> (accessed December 30, 2023).

⁶ Human Rights Watch, *Devastating Blows: Religious Repression of Uighurs in Xinjiang*, 2005, <https://www.hrw.org/reports/2005/china0405/china0405.pdf>, p. 13.

⁷ Human Rights Watch, *"Break Their Lineage, Break Their Roots": China's Crimes against Humanity Targeting Uyghurs and Other Turkic Muslims*, (New York: Human Rights Watch, 2021), <https://www.hrw.org/report/2021/04/19/break-their-lineage-break-their-roots/chinas-crimes-against-humanity-targeting>, pp. 7-10.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

campaign, which followed high-profile attacks allegedly carried out by Uyghurs in the Xinjiang region and at the Kunming train station in Yunnan province, led the Chinese government's oppression of Uyghurs in Xinjiang to reach unprecedented levels.¹¹ The authorities' heavy-handed tactics towards Uyghurs have also broadened to target other Turkic Muslim groups.¹² The government arbitrarily detained an estimated one million people in "political re-education" camps, pretrial detention centers, and prisons.¹³ Courts have handed down harsh prison sentences without due process, sentencing Uyghurs and other Turkic Muslims to years in prison merely for sending an Islamic religious recording to a family member or downloading e-books in Uyghur.¹⁴ Detainees and prisoners have been subjected to torture and other ill-treatment, cultural and political indoctrination, and forced labor.¹⁵ For Turkic Muslims outside detention facilities, the Chinese authorities impose a pervasive system of mass surveillance, controls on movement, arbitrary arrests, enforced disappearances, cultural and religious erasure, family separation, as well as coercive labor transfers.¹⁶

Human Rights Watch concluded in an April 2021 report that the Chinese government carried out a widespread and systematic attack against Uyghurs and Turkic Muslims in Xinjiang, constituting crimes against humanity.¹⁷ On August 31, 2022, the United Nations Office of the High Commissioner for Human Rights (OHCHR) issued a report finding that the Chinese government's rights violations against Uyghurs and other Turkic Muslims in Xinjiang "may constitute ... crimes against humanity."¹⁸ The US Department of State and the parliaments of Belgium, Canada, and the Netherlands have determined that China's conduct in Xinjiang constitutes genocide under international law.¹⁹

¹¹ Human Rights Watch, "Break their Lineage," pp. 9-10.

¹² Ibid.

¹³ Ibid., p. 12.

¹⁴ Ibid.

¹⁵ Ibid., pp. 19-40.

¹⁶ Ibid.

¹⁷ Human Rights Watch, "Break Their Lineage," p. 1.

¹⁸ United Nations Office of the High Commissioner for Human Rights (OHCHR), "OHCHR Assessment of human rights concerns in the Xinjiang Uyghur Autonomous Region, People's Republic of China," August 31, 2022, <https://www.ohchr.org/sites/default/files/documents/countries/2022-08-31/22-08-31-final-assessment.pdf>, para. 148 (accessed August 12, 2023).

¹⁹ "Determination of the Secretary of State on Atrocities in Xinjiang," US Department of State press release, January 19, 2020, <https://2017-2021.state.gov/determination-of-the-secretary-of-state-on-atrocities-in-xinjiang/> (accessed December 30, 2023). *ANI News*, "Belgian Parliament passes motion recognising genocide against Uyghurs in China's Xinjiang," June 15, 2021, <https://sg.news.yahoo.com/belgian-parliament-passes-motion-recognising-145443662.html?guccounter=1> (accessed



A guard stands in a tower on the perimeter of the Number 3 Detention Center in Dabancheng in Xinjiang Uyghur Autonomous Region on April 23, 2021. © 2021 AP Photo/Mark Schiefelbein

The Chinese government’s violations in Xinjiang show no sign of abating.²⁰ The Xinjiang Communist Party secretary, Ma Xingrui, vowed in November 2022 to continue “counterterrorism and stability maintenance” measures, require “various ethnic groups ... to fully embed” into the Chinese nation, “Sinicize” Islam so it is consistent with “socialist values,” and deepen cultural and ideological control over the region.²¹ Although some “political re-education” camps appear closed, there has been no mass release from prisons, where a half million Turkic Muslims have been held since the start of the

December 30, 2023). *BBC*, “Canada’s parliament declares China’s treatment of Uighurs ‘genocide’,” February 23, 2021, <https://www.bbc.com/news/world-us-canada-56163220> (accessed December 30, 2023). *Reuters*, “Dutch parliament: China’s treatment of Uighurs is genocide,” February 25, 2021, <https://www.reuters.com/article/us-netherlands-china-uighurs/dutch-parliament-chinas-treatment-of-uighurs-is-genocide-idUSKBN2AP2CI> (accessed December 30, 2023).

²⁰ “China: Unrelenting Crimes Against Humanity Targeting Uyghurs,” Human Rights Watch news release, August 31, 2023, <https://www.hrw.org/news/2023/08/31/china-unrelenting-crimes-against-humanity-targeting-uyghurs>.

²¹ *People’s Daily Online*, “新疆维吾尔自治区党委十届六次全会召开” [The Sixth Plenary Session of the Tenth Party Committee of the Xinjiang Uyghur Autonomous Region was Held], November 21, 2022, <http://xj.people.com.cn/n2/2022/1121/c186332-40202927.html> (accessed December 30, 2023). Archive: <https://web.archive.org/web/20230901002616/http://xj.people.com.cn/n2/2022/1121/c186332-40202927.html>.

crackdown, many serving long arbitrary prison sentences.²² Uyghurs abroad continue to have little to no contact with their family members, and some do not even know if their loved ones taken into custody or forcibly disappeared are still alive.

Forced Labor through Labor Transfers

In the course of its repression in Xinjiang, the Chinese government has subjected Uyghurs and other Turkic Muslims to forced labor, both inside detention centers and through labor transfer programs that coerce workers into jobs in factories and other industries.²³ Forced labor programs pursue government objectives of tackling the perceived risks of separatism, terrorism, and extremism through employment and poverty reduction and increased control over Uyghur workers, including through political re-education and cultural assimilation.²⁴ Nongovernmental organizations have previously documented forced labor in Xinjiang in industries such as cotton, polysilicon, and tomatoes.²⁵

Labor transfers involve the state-sponsored relocation of workers from their homes in mostly rural areas into jobs in factories and industries in largely urban areas.²⁶ In September 2020, the Chinese central government said that the XUAR had on average

²² “China: Xinjiang Official Figures Reveal Higher Prisoner Count,” Human Rights Watch news release, September 14, 2022, <https://www.hrw.org/news/2022/09/14/china-xinjiang-official-figures-reveal-higher-prisoner-count>.

²³ Human Rights Watch, “Break their Lineage,” pp. 34-35.

²⁴ Adrian Zenz, “The conceptual evolution of poverty alleviation through labour transfer in the Xinjiang Uyghur Autonomous Region,” *Central Asian Survey*, Central Asian Survey, 42:4, 649-673 (2023) <https://doi.org/10.1080/02634937.2023.2227225> (accessed December 30, 2023), p. 650. Sheffield Hallam University, “Forced Labor in the Uyghur Region: Why is this Happening?” Issue Brief 2, April 2023, <https://www.shu.ac.uk/-/media/home/research/helena-kennedy-centre/projects/evidence-briefs/shu-brief-2-why-is-this-happening.pdf> (accessed December 30, 2023), p. 2.

²⁵ Laura T. Murphy, et al., “Laundering Cotton: How Xinjiang Cotton is Obscured in International Supply Chain,” Sheffield Hallam University Helena Kennedy Centre for International Justice, November 2021, <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/laundered-cotton> (accessed December 30, 2023). Laura T. Murphy, and Nyrola Elimä, “In Broad Daylight: Uyghur Forced Labour and Global Solar Supply Chains,” Sheffield Hallam University Helena Kennedy Centre for International Justice, May 2021, <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/in-broad-daylight> (accessed December 30, 2023). C4ADS, “Everybody’s Business: The Xinjiang Goods Entering Global Supply Chains,” May 19, 2022, <https://c4ads.org/wp-content/uploads/2022/05/EverybodysBusiness.pdf> (accessed December 30, 2023).

²⁶ Adrian Zenz, “The conceptual evolution of poverty alleviation through labour transfer in the Xinjiang Uyghur Autonomous Region,” pp. 649-673. Adrian Zenz, “Coercive Labor and Forced Displacement in Xinjiang’s Cross-Regional Labor Transfer Program: A Process-Oriented Evaluation,” The Jamestown Foundation, <https://jamestown.org/program/coercive-labor-and-forced-displacement-in-xinjiangs-cross-regional-labor-transfer-program/> (accessed December 30, 2023), p. 8. Sheffield Hallam University, “Forced Labor in the Uyghur Region: The Evidence,” Issue Brief 1, April 2023, <https://www.shu.ac.uk/-/media/home/research/helena-kennedy-centre/projects/evidence-briefs/1-forced-labor-in-the-uyghur-region-the-evidence.pdf> (accessed December 30, 2023), p. 3.

relocated 2.76 million surplus rural laborers per year between 2014 and 2019.²⁷ This data may include transfers of Han Chinese workers as well as those targeting Uyghurs and other Turkic communities and may also count as several transfers the relocation of an individual worker who is moved multiple times in a single year.²⁸ The majority of relocations, however, involved workers in southern Xinjiang, where the region's Uyghur population is concentrated.²⁹ The number of relocations rose to 3.2 million in 2021, according to the Xinjiang government's statistics bureau.³⁰



A lecture before a “People’s Stage” in Cheke Terek (ch.:Qikeertiereke) Village, Akto County, Xinjiang, featured in a February 2019 article on promotion of labor transfers by the local *fanghuiju* (访惠聚) taskforce. Fanghuiju (访惠聚) taskforces station government cadres in villages and subject villagers to political propaganda. © 2019 Weixin

²⁷ State Council Information Office of the People's Republic of China, “Employment and Labor Rights in Xinjiang,” September 17, 2020, http://www.xinhuanet.com/english/2020-09/17/c_139373591.htm, archived: <https://archive.ph/iWiLy> (accessed December 30, 2023).

²⁸ Adrian Zenz, “The conceptual evolution of poverty alleviation through labour transfer in the Xinjiang Uyghur Autonomous Region,” p. 654.

²⁹ Of the 2.76 million average annual rural surplus laborers relocated between 2014 and 2019, nearly 1.68 million, or over 60 percent, were in southern Xinjiang. State Council Information Office of the People's Republic of China, “Employment and Labor Rights in Xinjiang,” September 17, 2020, http://www.xinhuanet.com/english/2020-09/17/c_139373591.htm, archived: <https://archive.ph/iWiLy> (accessed December 30, 2023). According to another September 2021 report from the State Council Information Office, Xinjiang's Uyghurs are mainly distributed in Kashgar Prefecture, Hotan Prefecture, Aksu Prefecture, and Kizilsu Kirgiz Autonomous Prefecture in the southern part of the XUAR. The 2020 national census found that Uyghurs accounted for 83.74 percent of the population in these four prefectures, representing 74.01 percent of the total Uyghur population in Xinjiang. State Council Information Office of the People's Republic of China, “Xinjiang Population Dynamics and Data,” September 2021, http://zw.china-embassy.gov.cn/eng/zgjj/202112/t20211216_10470540.htm (accessed December 30, 2023).

³⁰ Gao Feng, “2021 年新疆经济增长 7.0%” [Xinjiang's economy to grow by 7.0% in 2021], Xinjiang Daily, February 7, 2022, <https://nynct.xinjiang.gov.cn/nynct/nyncdt/202202/4e3071856b55495194d041130d4e990e.shtml>, archived: <https://archive.ph/iZCZC> (accessed December 30, 2023).

Xinjiang authorities' Thirteenth Five-Year Poverty Alleviation Plan, adopted in 2017, described labor transfers as part of the central government's nationwide "poverty alleviation" campaign.³¹ The central government sees poverty in Xinjiang as a potential contributor to terrorism and religious extremism. The State Council Information Office noted in a September 2020 white paper that prefectures in southern Xinjiang are "identified as areas of extreme poverty" and warned that "separatists and religious extremists ... [are] inciting the public to resist learning the standard spoken and written Chinese language, reject modern science, and refuse to improve their vocational skills, economic conditions, and the ability to better their own lives."³² The white paper also linked poverty reduction with Xinjiang's security, stating that the region "effectively prevents and strikes out at terrorism and extremism, and at the same time maintains social stability and improves people's lives, with its impoverished population and poverty incidence markedly reduced."³³

But while the government portrays labor transfers as focused on poverty alleviation, government officials coerce Uyghurs and other Turkic communities to participate in the transfers. In a 2022 report that discussed the labor transfer program, an International Labour Organization (ILO) expert committee noted "serious concerns as to the ability of ethnic and religious minorities to exercise freely chosen employment without discrimination."³⁴ The report then listed indicators that "suggest the presence of a 'labor transfer policy' using measures severely restricting the free choice of employment."³⁵ These indicators included "the relocation or transfer of workers under security escort; onsite management and retention of workers under strict surveillance; the threat of internment in vocational

³¹ Xinjiang Government, "13th Five-Year Poverty Alleviation Plan of Xinjiang Uygur Autonomous Region," May 19, 2017, <https://archive.ph/ejjXR#selection-263.0-287.1>. See also Jamestown Foundation, China Brief, "Unemployment Monitoring and Early Warning: New Trends in Xinjiang's Coercive Labor Placement Systems," Volume 22, Issue 11, [https://jamestown.org/program/unemployment-monitoring-and-early-warning-new-trends-in-xinjiangs-coercive-labor-placement-systems/#:~:text=The%20report%20estimates%20that%2076%2C000,September%2017%2C%202020\).%20](https://jamestown.org/program/unemployment-monitoring-and-early-warning-new-trends-in-xinjiangs-coercive-labor-placement-systems/#:~:text=The%20report%20estimates%20that%2076%2C000,September%2017%2C%202020).%20). See also International Labour Organization, Committee of Experts on the Application of Conventions and Recommendations (CEACR), Annual Report, February 2022, pp. 516-517.

³² State Council Information Office of the People's Republic of China, "Employment and Labor Rights in Xinjiang," September 17, 2020, http://www.xinhuanet.com/english/2020-09/17/c_139373591.htm, archived: <https://archive.ph/iWiLy> (accessed December 30, 2023).

³³ Ibid.

³⁴ ILO, Application of International Labour Standards 2022: Report of the Committee of Experts on the Application of Conventions and Recommendations, Report III (Part A) (Geneva: ILO, 2022), https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_836653.pdf, pp. 688-689.

³⁵ Ibid.

education and training centers if workers do not accept ‘government administration’; and the inability of placed workers to freely change employers.”³⁶

OHCHR, in a discussion of labor transfers in its 2022 report on Xinjiang, concluded that “there are indications that labor and employment schemes ... appear to be discriminatory in nature or effect and to involve elements of coercion.”³⁷ The United Nations’ Special Rapporteur on contemporary forms of slavery, Tomoya Obokata, in a July 19, 2022 report that discussed both labor transfers and detention in vocational training centers, stated that:

“While these programs may create employment opportunities for minorities and enhance their incomes, as claimed by the Government, the Special Rapporteur considers that indicators of forced labor pointing to the involuntary nature of work rendered by affected communities have been present in many cases. Further, given the nature and extent of powers exercised over affected workers during forced labor, including excessive surveillance, abusive living and working conditions, restriction of movement through internment, threats, physical and/or sexual violence and other inhuman or degrading treatment, some instances may amount to enslavement as a crime against humanity, meriting a further independent analysis.”³⁸

Research by nongovernmental organizations has used analysis of Chinese government policies and company statements to document labor transfer programs.³⁹ The research

³⁶ Ibid.

³⁷ United Nations Office of the High Commissioner for Human Rights (OHCHR), “OHCHR Assessment of human rights concerns in the Xinjiang Uyghur Autonomous Region, People’s Republic of China,” August 31, 2022, <https://www.ohchr.org/sites/default/files/documents/countries/2022-08-31/22-08-31-final-assesment.pdf> (accessed December 30, 2023), paras. 115-128.

³⁸ Tomoya Obokat, Special Rapporteur on contemporary forms of slavery, including its causes and consequences, “Contemporary forms of slavery affecting persons belonging to ethnic, religious and linguistic minority communities,” July 19, 2022, <https://www.ohchr.org/en/documents/thematic-reports/ahrc5126-contemporary-forms-slavery-affecting-persons-belonging-ethnic> (accessed August 27, 2023), para. 24.

³⁹ Adrian Zenz, “The conceptual evolution of poverty alleviation through labour transfer in the Xinjiang Uyghur Autonomous Region,” pp. 649-673. Adrian Zenz, “Coercive Labor and Forced Displacement in Xinjiang’s Cross-Regional Labor Transfer Program: A Process-Oriented Evaluation,” pp. 23-24. Australian Strategic Policy Institute, “Uyghurs for Sale: ‘Re-education’, forced labour and surveillance beyond Xinjiang,” p. 6. Sheffield Hallam University, “Forced Labor in the Uyghur Region: The Evidence,” pp. 3-5. Sheffield Hallam University, “Forced Labor in the Uyghur Region: Why is this Happening?”

described government officials in village-based work teams going door-to-door to identify participants for the transfer program.⁴⁰ Researchers have also documented evidence of the risk of internment for workers or family members who refuse to leave their homes and communities to join labor transfers,⁴¹ and restrictions on employees from leaving their jobs after transfers have occurred.⁴² Researchers have also found evidence that labor transfer workers are subject to mandatory Chinese language lessons and political re-education, under close supervision by government officials or company employees.⁴³

Forced labor is prohibited under international law.⁴⁴ ILO Convention No. 29 concerning Forced or Compulsory Labor defines forced or compulsory labor as “all work or service which is exacted from any person under the menace of any penalty and for which the said person has not offered himself voluntarily.”⁴⁵ China ratified the convention on August 12, 2022.⁴⁶ The ILO has set out a list of indicators to be considered in determining whether a situation constitutes forced labor, including abuse of workers’ vulnerability and the use of intimidation and threats, such as the threat of denunciation to authorities or of confinement.⁴⁷

⁴⁰ Adrian Zenz, “The conceptual evolution of poverty alleviation through labour transfer in the Xinjiang Uyghur Autonomous Region,” pp. 657-662.

⁴¹ Sheffield Hallam University, “Forced Labor in the Uyghur Region: The Evidence,” p. 3. Adrian Zenz, “The conceptual evolution of poverty alleviation through labour transfer in the Xinjiang Uyghur Autonomous Region,” pp. 665-666.

⁴² Adrian Zenz, “The conceptual evolution of poverty alleviation through labour transfer in the Xinjiang Uyghur Autonomous Region,” pp. 659-661, citing for example Yanqi Government, “关于进一步提高南疆四地州深度贫困地区有组织转移劳动力就业稳定性工作的通知 [Notice on Further Improving the Employment Stability of Organized Transferred Labor Forces in Deeply Poverty-stricken Areas in the Four Prefectures of Southern Xinjiang].” November 20, 2018, <http://www.xjyq.gov.cn/page.do?danwei=1&fenlei=7000&nian=2018&liushui=13&type=2>, archived: <https://archive.ph/n3iSS> (accessed December 30, 2023).

⁴³ Adrian Zenz, “Coercive Labor and Forced Displacement in Xinjiang’s Cross-Regional Labor Transfer Program: A Process-Oriented Evaluation,” pp. 23-24. Australian Strategic Policy Institute, “Uyghurs for Sale: ‘Re-education’, forced labour and surveillance beyond Xinjiang,” p. 6. Sheffield Hallam University, “Forced Labor in the Uyghur Region: The Evidence,” pp. 3-5. Sheffield Hallam University, “Forced Labor in the Uyghur Region: Why is this Happening?”

⁴⁴ ILO Convention No. 29 concerning Forced or Compulsory Labour (Forced Labour Convention), adopted June 28, 1930, 39 U.N.T.S. 55, entered into force May 1, 1932. ILO Convention No. 105 concerning Abolition of Forced Labor, adopted June 25, 1957, entered into force, January 17, 1959.

⁴⁵ Ibid. ILO Convention No. 29, art. 2.1.

⁴⁶ International Labour Organization (ILO), “Ratifications of Co29 – Forced Labour Convention, 1930 (No. 29),” webpage, https://www.ilo.org/dyn/normlex/en/f?p=1000:11300:0::NO:11300:P11300_INSTRUMENT_ID:312174 (accessed December 30, 2023).

⁴⁷ ILO, “ILO Indicators of Forced Labour,” booklet, (Geneva: ILO), https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---declaration/documents/publication/wcms_203832.pdf.

Xinjiang's Aluminum Industry

The Chinese government has made Xinjiang a hub for heavy industry, including aluminum production, even as it has expanded abuses against Uyghurs.⁴⁸ Xinjiang's aluminum production has rapidly increased over the past decade, growing from approximately one million tons in 2010 to six million tons in 2022.⁴⁹ More than 15 percent of the aluminum produced in China, or 9 percent of global supply, now comes from Xinjiang.⁵⁰ Xinjiang produces more aluminum than any country outside of China. Companies in Xinjiang also extract or produce other metals, minerals, and alloys used in car manufacturing, including steel, lithium, and copper.⁵¹

⁴⁸ Consecutive XUAR Five-Year Plans for National Economic and Social Development have heavily emphasized industrial development in general and of the aluminum industry specifically. Xinjiang People's Government, “新疆维吾尔自治区国民经济和社会发展第十二个五年规划纲要” [Outline of the 12th Five-Year Plan for National Economic and Social Development of the Xinjiang Uygur Autonomous Region], <http://www.plandb.cn/plan/1032>, archived: <https://archive.ph/VAGkl> (accessed December 30, 2023). Xinjiang People's Government, “关于印发新疆维吾尔自治区“十三五”脱贫攻坚规划的通知” [Notice on Issuing the Xinjiang Uygur Autonomous Region's “13th Five-Year Plan” Poverty Alleviation Plan], May 19, 2017, archived: <https://archive.ph/ejjXR#selection-263.0-287.1> (accessed December 30, 2023). Xinjiang People's Government, “新疆维吾尔自治区国民经济和社会发展第十四个五年规划和 2035 年远景目标纲要” [14th Five-Year Plan for the National Economic and Social Development of the Xinjiang Uygur Autonomous Region and 2035 Outline of long-term goals], February 5, 2021, on file with Human Rights Watch.

⁴⁹ Xinjiang's aluminum production capacity is over 6 million tons, but production caps mean that not all that capacity is used. Aluminum Branch, “2022 年新疆电解铝产量 599 万吨, 同比增长 2.1%” [Xinjiang's electrolytic aluminum output in 2022 is 5.99 million tons, a year-on-year increase of 2.1%], March 13, 2022, https://m.mysteel.com/23/0313/10/A887BF330F8504BE_abc.html, archived: https://web.archive.org/web/20230509102148/https://m.mysteel.com/23/0313/10/A887BF330F8504BE_abc.html. The Aluminum Branch article states: “Up to now, the production capacity of electrolytic aluminum in Xinjiang is 6.53 million tons per year. In 2022, the output of electrolytic aluminum in Xinjiang will be 5.99 million tons, a year-on-year increase of 2.1%, accounting for 14.9% of the output, ranking third in the country after Shandong and Inner Mongolia.” See also China Nonferrous Metals Industry Association, “新疆火电铝仍存诸多挑战” [Xinjiang Thermal Power Aluminum Still Faces Many Challenges], February 14, 2023, <https://www.chinania.org.cn/html/hangyetongji/tongji/2023/0214/52548.html>, archived: <https://web.archive.org/web/20230508151801/https://www.chinania.org.cn/html/hangyetongji/tongji/2023/0214/52548.html> (accessed December 30, 2023). Human Rights Watch has also documented Xinjiang's production capacity on a smelter-by-smelter basis, using data on each company's capacity from public company documents and media reports. Human Rights Watch estimated Xinjiang's total production capacity as of 2021 as 7.23 million tons (data on file with Human Rights Watch). Horizon Advisory and Sheffield Hallam University estimated Xinjiang's aluminum production capacity as approximately 8 million tons, with Sheffield Hallam University estimating that Xinjiang produced 6.6 million tons of aluminum in 2021. Laura T. Murphy et al., “Driving Force: Automotive Supply Chains and Forced Labor in the Uyghur Region,” p. 22. Horizon Advisory, “Forced Labor Risks in China's Aluminum Sector,” p. 3.

⁵⁰ China produced 40 million tons of primary aluminum in 2022. Global aluminum production in 2022 was 69 million tons. US Geological Survey, Mineral Commodity Summaries, “Aluminum,” January 2023, <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-aluminum.pdf>.

⁵¹ Laura T. Murphy et al., “Driving Force: Automotive Supply Chains and Forced Labor in the Uyghur Region.”

Primary aluminum, which denotes aluminum produced from mined bauxite ore rather than recycled, is produced through a refining process in which bauxite is converted to an intermediate product, alumina, and then smelted into aluminum through electrolysis.⁵²

Xinjiang's aluminum industry is centered on the smelting of aluminum, taking advantage of the region's abundant coal reserves to generate the large quantities of energy needed for the smelting process.⁵³

Xinjiang's aluminum industry depends on locally available coal to make its smelters competitive. Xinjiang possesses virtually none of the bauxite, or alumina refineries, needed to produce aluminum, but cheap coal power offsets the cost of purchasing and transporting alumina from other parts of China thousands of kilometers away.⁵⁴ China imports the majority of its bauxite from other countries, which is refined into alumina outside Xinjiang.⁵⁵

⁵² A. Michael Donoghue, Neale Frisch, & David Olney, "Bauxite mining and alumina refining: process description and occupational health risks," *Journal of Occupational and Environmental Medicine*, 56.5S (2014): S12-S17, accessed December 30, 2023, doi:10.1097/JOM.0000000000000001.

⁵³ For discussion of the energy intensity of aluminum smelting, see G. Saevarsdottir, H. Kvande, and B.J. Welch, "Aluminum Production in the Times of Climate Change: The Global Challenge to Reduce the Carbon Footprint and Prevent Carbon Leakage," *Journal of The Minerals, Metals & Materials Society*, 72, 296–308 (2020), accessed December 30, 2023, doi:10.1007/s11837-019-03918-6, p. 297. See also, "U.S. Energy Requirements for Aluminum Production," US Department of Energy, February 2007, https://www1.eere.energy.gov/manufacturing/resources/aluminum/pdfs/al_theoretical.pdf (accessed May 27, 2021), p. 11. International Aluminum, "Aluminum Sector Greenhouse Gas Pathways to 2050," September 2021, (accessed December 30, 2023), <https://international-aluminum.org/resource/aluminum-sector-greenhouse-gas-pathways-to-2050-2021/>.

⁵⁴ A February 2023 article published by China's Nonferrous Metals Industry Association described electricity as the "lifeblood" of the aluminum industry and noted that: "Even if Xinjiang has the 'centrifugal force' of lack of raw materials, long transportation distances, and high transportation costs, it cannot offset the 'centripetal force' of stable power supply supported by abundant coal resources and relatively low electricity costs." The article also stated that: "On the raw material side, due to the lack of bauxite resources and the distance from bauxite production areas, it is impossible to build alumina production capacity. Therefore, all the alumina required for electrolytic aluminum production needs to be purchased from Shanxi, Henan, and other regions over long distances." China Nonferrous Metals Industry Association, "新疆火电铝仍存诸多挑战" [Xinjiang Thermal Power Aluminum Still Faces Many Challenges], February 14, 2023, <https://www.chinania.org.cn/html/hangyetongji/tongji/2023/0214/52548.html>, archived: <https://web.archive.org/web/20230508151801/https://www.chinania.org.cn/html/hangyetongji/tongji/2023/0214/52548.html> (accessed December 30, 2023).

⁵⁵ China produced 24 percent of global bauxite in 2022 and imported 125 million tons of the ore – about a third of global production – for its refineries and smelters. US Geological Survey, Mineral Commodity Summaries, "Bauxite and Alumina," January 2023, <https://pubs.usgs.gov/periodicals/mcs2023/mcs2023-bauxite-alumina.pdf>. Adithya Ram, "China records higher aluminum, alumina trade with Russia in 2022," *S&P Global*, January 20, 2023, <https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/metals/012023-china-records-higher-aluminum-alumina-trade-with-russia-in-2022#:~:text=China's%20bauxite%20imports%20reached%20125.5,online%20in%202023%2C%20sources%20said> (accessed December 30, 2023).

Xinjiang's aluminum smelters all produce their own power, operating coal power plants instead of purchasing power from the electricity grid. Most of the smelters and power plants are also located in close proximity to coal mines.⁵⁶ In 2021, an investment report found that Xinjiang's abundant coal reserves and low transportation costs for coal consumed inside the region meant that the average cost of electricity generation in Xinjiang is 0.19 yuan/Kwh, 0.13 yuan/Kwh lower than the average cost of electricity in the aluminum industry more broadly.⁵⁷

However, the reliance of Xinjiang's aluminum industry on coal power means that its greenhouse gas emissions are enormous. Tianshan Aluminum, a Xinjiang smelter that used coal power to produce 1.1 million tons of aluminum in 2020, stated that its power generation that year was 13.5 billion kWh.⁵⁸ This amount of power from coal could generate more than 13.5 million tons of carbon dioxide (CO₂) equivalent.⁵⁹ Another company, Henan Shenhua, that relied on coal power to produce 800,000 tons of aluminum, stated in a 2020 annual report that its Xinjiang operations produced 10.64 billion kWh of power in 2020, equivalent to more than 10.5 million tons of CO₂ equivalent.⁶⁰

⁵⁶ Ibid.

⁵⁷ China Securities Research and Development Center, "Dianxin's dual bases take the lead, aluminum welcomes Carbon Dafeng's profit increase," Shenhua Company In-depth Report, March 12, 2021, http://pdf.dfcfw.com/pdf/H3_AP202103141471886381_1.pdf, archived: https://web.archive.org/save/http://pdf.dfcfw.com/pdf/H3_AP202103141471886381_1.pdf (accessed December 30, 2023), p. 12.

⁵⁸ Tianshan Aluminum Group, "2020 Annual Report," http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESZ_STOCK/2021/2021-4/2021-04-08/7019928.PDF, archived: https://web.archive.org/web/20230922171715/http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESZ_STOCK/2021/2021-4/2021-04-08/7019928.PDF (accessed December 30, 2023).

⁵⁹ According to the US Energy Information Administration (EIA), it takes 1.12 pounds of coal to produce a kWh of electricity. U.S Energy Information Administration "Frequently Asked Questions (FAQS)" webpage, last updated November 8, 2022, <https://www.eia.gov/tools/faqs/faq.php?id=667&t=2#:~:text=Coal%E2%80%931.12%20pounds%2FkWh,Petroleum%20liquids%E2%80%9330.08%20gallons%2FkWh>. Producing 13.5 billion kWh would therefore require 15.12 billion pounds of coal. According to the EPA, 8.93 x 10⁻⁴ (0.000893) metric tons of CO₂ are emitted per pound of coal. US Environmental Protection Agency (EPA) "Greenhouse Gases Equivalencies Calculator – Calculations and References" webpage, last updated May 30, 2023, <https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#lbscoal>. This suggests that burning 15.12 billion pounds of coal would produce 13.5 million metric tons of CO₂ equivalent. For the equivalence between these emissions and other data, including carbon sequestered by US forests for one year, see the EPA's "Greenhouse Gas Equivalencies Calculator" webpage, last updated July 21, 2023, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results>.

⁶⁰ Henan Shenhua Coal and Electricity, "2020 Annual Report," <http://static.cninfo.com.cn/finalpage/2021-04-06/1209638011.PDF>, archived: <https://web.archive.org/web/20221209220524/http://static.cninfo.com.cn/finalpage/2021-04-06/1209638011.PDF> (accessed December 30, 2023). 10.64 billion kWh x 1.12 lbs coal = 11.92 billion tons of coal, equivalent to 10.64 million tons of CO₂ equivalent (11.92 billion x 0.000893). See footnote 59 above for the basis of these calculations.

Fuel for power in the form of coal, gas, and oil for electricity and heat production is the single largest source of global greenhouse gas (GHG) emissions worldwide.⁶¹ Globally, the aluminum industry's reliance on coal means it produces about one billion tons of CO₂ equivalent each year, around 2 percent of global greenhouse gas emissions.⁶² Electricity used during the smelting process accounts for almost 60 percent of the aluminum industry's greenhouse gas emissions.⁶³ China's aluminum producers emitted 20.3 tons of carbon per ton of aluminum produced in 2019, 21 percent more than the global average of 16.8 tons, according to data from the International Aluminum Institute (IAI).⁶⁴ Seventy-five percent of China's aluminum is produced using coal power.⁶⁵

China's Car Industry

Domestic and foreign manufacturers in China make the most cars in the world, producing 27 million cars in 2022, or 34 percent of global supply.⁶⁶ China is also the world's biggest market for car sales, with Chinese consumers buying 23.5 million vehicles in 2022.⁶⁷ The United States was second with 13.6 million sales.⁶⁸

⁶¹ US Environmental Protection Agency (EPA) "Global Greenhouse Gas Emissions Data," webpage, last updated February 15, 2023, <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>.

⁶² International Aluminum Institute, "Aluminum Sector Greenhouse Gas Pathways to 2050," September 2021, <https://international-aluminum.org/resource/aluminum-sector-greenhouse-gas-pathways-to-2050-2021/>, p. 3. Saevardottir, Kvande, and Welch, "Aluminum Production in the Times of Climate Change," p. 298. See also, Renee Van Heusden, Morrison Harry, and Mary Puleo, "Why addressing the aluminum industry's carbon footprint is key to climate action," *GreenBiz*, December 16, 2020, <https://www.greenbiz.com/article/whyaddressing-aluminum-industrys-carbon-footprint-key-climate-action> (accessed June 30, 2021).

⁶³ Human Rights Watch email correspondence with International Aluminum Institute, November 20, 2023.

⁶⁴ International Aluminum Institute, "Life Cycle Inventory Data and Environmental Metrics for the Primary Aluminum Industry," November 2022, (accessed November 21, 2023), p. 37. Human Rights Watch email correspondence with International Aluminum Institute, November 20, 2023.

⁶⁵ Human Rights Watch email correspondence with International Aluminum Institute, November 20, 2023. International Aluminum Institute, "Primary Aluminium Smelting Power Consumption," <https://international-aluminium.org/statistics/primary-aluminium-smelting-power-consumption/> (accessed November 21, 2023).

⁶⁶ China Association of Automobile Manufacturers, "Production of Automobiles in December 2022," webpage, <http://en.caam.org.cn/Index/show/catid/57/id/1866.html>. European Automobile Manufacturer's Association (ACEA), "Passenger car production, by world region," May 1, 2023, [https://www.acea.auto/figure/passenger-car-production-by-world-region/#:~:text=China%20produces%2034%25%20of%20the,and%20North%20America%20\(15%25\)](https://www.acea.auto/figure/passenger-car-production-by-world-region/#:~:text=China%20produces%2034%25%20of%20the,and%20North%20America%20(15%25)) (accessed December 30, 2023).

⁶⁷ F&I Tools, "Car Sales by Country: 2022 Full Year," webpage, <https://www.factorywarrantylist.com/car-sales-by-country.html> (accessed December 30, 2023).

⁶⁸ Ibid.



Cars gathered at Yantai Port, China, for export, on January 10, 2024. © 2024 Photo by Costfoto/NurPhoto via AP

China became the world's biggest exporter of cars in June 2023, according to the China Association of Automobile Manufacturers, exporting 2.34 million vehicles from January to June 2023.⁶⁹ China's automobile exports have grown dramatically in the past decade, from fewer than 800,000 vehicles annually in 2015⁷⁰ to a projected 7.9 million in 2025, according to Canalys, a research consultancy.⁷¹ Chinese carmaker BYD is even building its own fleet of ships to transport its vehicles abroad.⁷²

⁶⁹ Li Fusheng, "China now world's top vehicle exporter," *China Daily*, August 9, 2023, <https://www.chinadaily.com.cn/a/202308/09/WS64d2c35ea31035260b81afc6.html> (December 30, 2023).

⁷⁰ China Association of Automobile Manufacturers, "China Automobile Exports (2008-2021)," <http://en.caam.org.cn/Index/show/catid/40/id/1719.html> (accessed December 20, 2023).

⁷¹ Canalys, "China's auto export set to exceed 5 million in 2023," October 25, 2023, <https://canalys.com/newsroom/china-auto-export-in-2023> (accessed December 21, 2023).

⁷² Riz Akhtar, "BYD is building a new vehicle carrier to ship 7,000 EVs at a time," *The Driven*, November 9, 2023, <https://thedriven.io/2023/11/09/byd-is-building-a-new-vehicle-carrier-to-ship-7000-evs-at-a-time/> (accessed December 21, 2023).

Cars from China are exported to many global markets, including Europe, the United Kingdom, Australia, and Mexico, as well as markets in Southeast Asia and Africa.⁷³ EU countries imported €9.45 billion worth of passenger motor vehicles from China in 2022, up from €344 million in 2012.⁷⁴ The US imported \$2.33 billion worth of passenger motor vehicles from China in 2022, up from \$92 million in 2013.⁷⁵ The US government in 2018 imposed an additional 25 percent tariff on the import of gas-powered and electric cars from China, meaning Chinese cars pay a 27.5 percent import duty.⁷⁶ The EU's duty on car imports was, at writing, 10 percent.⁷⁷

China's car industry includes both major Chinese manufacturers, such as BYD, SAIC Motor Company, and FAW Group, and joint ventures between global brands and Chinese companies. Volkswagen, for example, the world's biggest carmaker by revenue in 2022,⁷⁸ sold more than half its cars in China in 2022,⁷⁹ the vast majority made by China-based joint

⁷³ Keith Bradsher, "China Is Flooding the World with Cars," *New York Times*, September 6, 2023, <https://www.nytimes.com/2023/09/06/business/china-car-exports.html> (accessed December 21, 2023). Dong Yi Chen, "China became the world's largest vehicle exporter in Q1 2023, surpassing Japan," *CarNewsChina*, May 13, 2023, <https://carnewschina.com/2023/05/13/china-became-the-worlds-largest-vehicle-exporter-in-q1-2023-surpassing-japan/#> (accessed December 21, 2023). Matt Oliver, Howard Mustoe and Will Hazell, "The alarming reality of cheap Chinese cars on British roads," *The Telegraph*, August 6, 2023, <https://www.telegraph.co.uk/business/2023/08/06/china-electric-cars-invasion-britain-security-risks/> (accessed December 21, 2023).

⁷⁴ European Commission, "EU Trade Statistics," <https://trade.ec.europa.eu/access-to-markets/en/statistics>, imports under HS Code 8703 (Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 8702), including station wagons and racing cars) (accessed December 30, 2023).

⁷⁵ International Trade Administration, "US Trade by Product," <https://www.trade.gov/data-visualization/tradestats-express-us-trade-product>, imports under HS Code 8703 (Motor Cars and Vehicles for Transporting Persons) (accessed December 30, 2023).

⁷⁶ Clifford Atiyeh and Joey Capparella, "Trump, Trade, and U.S.-China Automotive Tariffs: The Timeline," *Car and Driver*, December 11, 2018, <https://www.caranddriver.com/news/a25382834/china-us-tariffs-automotive-trump/> (accessed December 21, 2023). James Frater and Mark Thompson, "Europe probes China's electric car subsidies as imports soar," *CNN*, September 14, 2023, <https://www.cnn.com/2023/09/13/cars/europe-china-electric-car-subsidies/index.html#> (accessed December 21, 2023).

⁷⁷ David Ferris and Joshua Posaner, "Miles apart: The US and Europe diverge on China car threat," *Politico*, June 23, 2023, <https://www.politico.eu/article/china-us-europe-electric-cars-miles-apart-the-us-and-europe-diverge-on-car-threat/#> (accessed December 21, 2023).

⁷⁸ "The Largest Car Companies in the World (New)," *Car Logos*, updated February 9, 2023, <https://www.carlogos.org/reviews/largest-car-companies.html> (accessed December 30, 2023).

⁷⁹ "Volkswagen's worldwide deliveries of all-electric vehicles grow by almost 24 percent in 2022," *Volkswagen news release*, January 10, 2023, <https://www.volkswagen-newsroom.com/en/press-releases/volkswagens-worldwide-deliveries-of-all-electric-vehicles-grow-by-almost-24-percent-in-2022-15407>. Volkswagen delivered around 4.56 million vehicles across all drive types to customers in 2022. In 2022, Volkswagen Group China delivered over 3.18 million vehicles in Hong Kong and mainland China. Hillary Princewill, "Volkswagen Chairman: China is our most important market," *CarNewsChina.com*, February 2, 2023, <https://carnewschina.com/2023/02/02/volkswagen-chairman-china-is-our-most-important-market/> (accessed December 30, 2023).

ventures.⁸⁰ A subsidiary of one of these joint ventures, SAIC-Volkswagen, operates a plant in Ürümqi, Xinjiang's capital.⁸¹ Volkswagen co-owns SAIC-Volkswagen with SAIC, with SAIC owning 50 percent, Volkswagen Group owning 40 percent, and Volkswagen (China) Investment Company, which is owned entirely by Volkswagen Group, owning 10 percent.⁸² SAIC-Volkswagen produces Volkswagen Group brand models.⁸³

Toyota, Volkswagen's closest competitor as the world's biggest carmaker, also has two major Chinese joint ventures.⁸⁴ General Motors (GM), the biggest US carmaker by volume of sales in 2021, manufactures vehicles in China through joint ventures with SAIC and other Chinese companies.⁸⁵ GM, through its joint ventures, delivered 2.3 million vehicles in China in 2022, with GM selling 2.27 million vehicles in the US the same year.⁸⁶ GM owns between 25 and 50 percent of its joint ventures with SAIC, including 50 percent of the joint

⁸⁰ FAW-VW sold 1.86 million cars in 2021. *Gasgoo*, "FAW-Volkswagen sells 1.86 million vehicles in 2021," January 4, 2022, <https://autonews.gasgoo.com/m/70019480.html> (accessed December 30, 2023). SAIC-VW sold 1.24 million cars in 2021. "SAIC Motor Co., Ltd. December 2021 Production and Sales Report," *SAIC news release*, January 8, 2022, <https://www.saicmotor.com/chinese/images/tzzgx/ggb/lsgg/2022nlsgg/2022/1/7/5336120E8D8746AEAAA4CF3E8A934CD5.pdf> (accessed December 30, 2023). Volkswagen group total sold 3.3 million vehicles in China in 2021, including imports. "Volkswagen Annual Report 2021 – Volkswagen Group China," *Volkswagen*, <https://annualreport2021.volkswagenag.com/divisions/volkswagen-group-china.html> (accessed December 30, 2023).

⁸¹ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

⁸² "Information for the Press Volkswagen Group China," *Volkswagen news release*, November 2019, <https://www.volkswagen-newsroom.com/en/volkswagen-group-china-5897> (accessed December 30, 2023).

⁸³ *Ibid*.

⁸⁴ Satoshi Sugiyama, "Toyota defends title as world's top-selling automaker in 2022," *Reuters*, January 29, 2023, <https://www.reuters.com/business/autos-transportation/toyota-defends-title-worlds-top-selling-automaker-2022-2023-01-30> (accessed December 30, 2023). FAW Group, "FAW Toyota," webpage, http://www.faw.com/fawen/gjyt36/gjhz/faw_toyota/index.html (accessed December 30, 2023). GAC Toyota, webpage, https://www.gac-toyota-com-cn.translate.google/?_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en-US (accessed December 30, 2023).

⁸⁵ F&I Tools, "Worldwide Car Sales by Manufacturer," webpage, <https://www.factorywarrantylist.com/car-sales-by-manufacturer.html> (accessed December 30, 2023). "General Motors in China," GM webpage, <https://news.gm.com.cn/en/home/newsroom.detail.html/Pages/news/cn/en/2018/Nov/About-GMChina.html?id=1631783346622> (accessed December 30, 2023). General Motors, "SAIC-GM: Shanghai Automotive Industry Corporation (SAIC) and GM – Designed for success," 2020, https://www.ge.com/digital/sites/default/files/download_assets/saic-gm-shanghai-automotive-customer-story.pdf (accessed September 11, 2023).

⁸⁶ "GM Delivers 2.3 Million Vehicles to China in 2022," GM news release, January 2023, <https://news.gm.com.cn/en/home/newsroom.detail.html/Pages/news/cn/en/2023/Jan/0106-sales.html> (accessed September 11, 2023). Michael Wayland, "GM reclaims title as America's top automaker after a 2.5% jump in sales last year," *CNBC*, January 4, 2023, <https://www.cnbc.com/2023/01/04/general-motors-gm-sales-q4-2022.html> (accessed December 30, 2023).

venture, SAIC-GM (known as SGM), that manufactures well-known GM brands such as Buick, Chevrolet, and Cadillac.⁸⁷

China is also the world's biggest manufacturer of battery-powered electric cars, producing 5.1 million in 2022.⁸⁸ Electric cars are a large share of China's car exports, representing more than 70 percent of the value of China's passenger motor vehicle exports to the EU in 2022.⁸⁹

Tesla operates a facility in Shanghai, which Tesla calls its Shanghai Gigafactory, where it makes its Model 3 and Model Y vehicles.⁹⁰ Media reports have stated that Tesla's Shanghai Gigafactory produced 710,865 vehicles in 2022, more than half of all the Teslas sold worldwide.⁹¹ Media outlets have also reported that approximately half of the Teslas made in China are exported abroad, including to Europe, Australia, and Canada.⁹² Human

⁸⁷ General Motors, "Annual Report 2022," <https://investor.gm.com/static-files/12adf215-2927-498e-a958-66345e607b98>, p. 71 (accessed September 11, 2023). "General Motors in China," *General Motors news release*, https://media.chevrolet.com/dld/content/media/cn/en/jiefang/company/_jcr_content/rightpar/sectioncontainer_o/par/download_cbbd/file.res/General%20Motors%20China.pdf (accessed December 30, 2023).

⁸⁸ China Association of Automobile Manufacturers, "Production of New Energy Vehicles in December 2022," <http://en.caam.org.cn/Index/show/catid/59/id/1890.html> (accessed December 20, 2023). Barry van Wyk, "China's top 15 electric vehicle companies," *The China Project*, May 18, 2023, <https://thechinaproject.com/2023/05/18/chinas-top-15-electric-vehicle-companies/#:~:text=China%20is%20already%20the%20giant,10.52%20million%20global%20NEV%20sales> (accessed December 30, 2023).

⁸⁹ The EU imported €9,450,199,783 worth of passenger motor vehicles from China in 2022, of which electric vehicles constituted €6,868,694,023 in value. European Commission, "EU Trade Statistics," <https://trade.ec.europa.eu/access-to-markets/en/statistics>, data for imports under HS Code 8703 (Motor cars and other motor vehicles principally designed for the transport of persons (other than those of heading 8702), including station wagons and racing cars) and data for HS 870380 (Other vehicles, with only electric motor for propulsion) (accessed December 30, 2023).

⁹⁰ Tesla, "Manufacturing," webpage, <https://www.tesla.com/manufacturing>, (accessed December 30, 2023). Fred Lambert, "Tesla announces Gigafactory Shanghai produced its 1 millionth electric car," *electrek*, August 14, 2022, <https://electrek.co/2022/08/14/tesla-gigafactory-shanghai-produced-its-1-millionth-electric-car/> (accessed December 30, 2023). Steven Loveday, "Tesla Vehicle Safety Goals At Giga Shanghai Are Impressive," *Inside EVs*, January 7, 2022, <https://insideevs.com/news/559325/tesla-safety-principles-china-factory/> (accessed December 30, 2023).

⁹¹ Ben O'Hare, "Over Half Of All Tesla's Sold In 2022 Were Made In Giga Shanghai," *Inside EVs*, January 8, 2023, <https://insideevs.com/news/630001/giga-shanghai-half-of-sales/> (accessed December 30, 2023). Mark Kane, "Tesla Production Sites By Model Assignment, Capacity: January 2023," *Inside EVs*, January 28, 2023, <https://insideevs.com/news/634391/tesla-production-sites-model-assignment-january2023/> (accessed December 30, 2023).

⁹² Simon Alvarez, "Tesla China wholesale figures reach 88,869 vehicles in March 2023," *Teslarati*, April 4, 2023, <https://www.teslarati.com/tesla-china-wholesale-results-march-2023> (accessed December 30, 2023). Hyunjoon Jin and Zhang Yan, "Tesla offers China-made electric vehicles for sale in Canada," *Reuters*, May 23, 2023, <https://finance.yahoo.com/news/tesla-offers-china-made-electric-063323725.html> (accessed December 30, 2023). Zhang Yan and Brenda Goh, "Exclusive: Tesla has considered exporting EVs from Shanghai to U.S., Canada," *Reuters*, November 12, 2022, <https://www.reuters.com/business/autos-transportation/exclusive-tesla-mulls-exporting-china-made-evs-united-states-sources-2022-11-11/> (accessed December 30, 2023).

Rights Watch asked Tesla to confirm media reports of its production figures in Shanghai, as well as the destination of exports from China, but Tesla said that it “does not publicize specific factory production or our export volumes.”⁹³ BYD, Tesla’s main rival as the world’s biggest electric carmaker, builds the vast majority of its vehicles in China and is reportedly targeting Europe as an export market.⁹⁴

In addition to manufacturing vehicles, factories in China are also an increasingly large player in the global automotive parts industry. The value of China’s exports of car parts reportedly reached \$73.7 billion in 2022, compared to \$32.7 billion in 2011.⁹⁵ China is the world leader in producing and exporting lithium-ion electric batteries, with Chinese companies responsible for three-quarters of global lithium-ion electric battery manufacturing in 2022.⁹⁶

Aluminum and the Car Industry

Aluminum has long been an important material for car manufacturing, with the car industry consuming approximately 18 percent of the aluminum products consumed worldwide in 2021, according to the IAI.⁹⁷ The average aluminum content in passenger cars is projected to increase from 121 kilograms per vehicle in 2006 to 256 kilograms per vehicle in 2030, according to Ducker Carlise, a consulting firm.⁹⁸

The transition to electric vehicles is likely to significantly increase the industry’s aluminum usage, with the metal’s light weight increasing the distance electric cars can travel before

⁹³ Human Rights Watch email correspondence with Tesla, September 29, 2023.

⁹⁴ Lora Kolodny, “Tesla reports 1.31 million deliveries in 2022, growth of 40% over last year,” *CNBC*, January 2, 2023, <https://www.cnbc.com/2023/01/02/tesla-tsla-q4-2022-vehicle-delivery-and-production-numbers.html> (accessed December 30, 2023). Danny Lee and Eduardo Thomson, “Warren Buffett ‘Loves’ China’s BYD Despite Selldown, EV Executive Says,” *Bloomberg*, December 6, 2022, <https://www.bloomberg.com/news/articles/2022-12-07/buffett-still-committed-to-byd-amid-selldown-byd-executive-says?sref=XGCNUIEk&leadSource=uverify%2owall> (accessed December 30, 2023).

⁹⁵ Li Fusheng, “Chinese automakers partner up in Munich to gain global presence,” *China Daily*, September 11, 2023, <https://chinadaily.com.cn/a/202309/11/WS64fe6828a310d2dce4bb503c.html> (accessed October 2023). Boying Ji, “The Globalization of China’s Auto Parts Industry,” *Equal Ocean*, August 3, 2023, <https://equalocean.com/analysis/2023080320014> (accessed October 2023).

⁹⁶ Govind Bhutada, “Visualizing China’s Dominance in Battery Manufacturing (2022-2027),” *Visual Capitalist*, January 19, 2023, <https://www.visualcapitalist.com/chinas-dominance-in-battery-manufacturing/> (accessed December 30, 2023).

⁹⁷ Human Rights Watch email correspondence with International Aluminum Institute, November 20, 2023.

⁹⁸ Ducker Carlisle LLC, “Aluminum Content in Passenger Vehicles (Europe),” *Assessment 2022 and Outlook 2026, 2030*, Public Summary, April 2023, https://european-aluminium.eu/wp-content/uploads/2023/05/2023_04_Aluminum-Content_Ducker-Study_EA-Public-Summary_190423.pdf, p. 14.

being recharged.⁹⁹ The IAI has estimated that the car industry’s demand for aluminum will double by 2050, from almost 17 million tons in 2019 to almost 35 million tons.¹⁰⁰ Aluminum is highly recyclable, but more than half of the aluminum currently used by the car industry is primary aluminum, produced by aluminum smelting.¹⁰¹

Aluminum is different from other commodities, such as the cobalt and lithium used in electric vehicle batteries, because it is used in dozens of automotive parts, from engine blocks and vehicle frames to wheels and battery foils. As a result, carmakers typically source aluminum part by part, working to find the appropriate aluminum alloy necessary to make specific parts of a car.

Aluminum smelters don’t produce pure aluminum, but rather aluminum mixed with small quantities of other elements such as iron, silicon, and zinc.¹⁰² The aluminum produced by smelters is referred to as “unalloyed” metal, because it has not yet been mixed with the other materials needed to make the specific “alloy” suited for a final product, whether kitchen foil or car parts.¹⁰³

Aluminum alloys are produced by combining the “unalloyed” aluminum produced by a smelter (which is often mixed with recycled aluminum) with other additional elements, such as copper, silicon, magnesium, manganese, or zinc.¹⁰⁴ Aluminum alloys are produced at a casthouse, either at the same location as the smelter, for example using the molten aluminum produced by the smelter, or at another site, which requires remelting unalloyed ingots to combine them with other elements.¹⁰⁵

⁹⁹ Ibid., pp. 10, 15.

¹⁰⁰ Human Rights Watch email correspondence with International Aluminum Institute, May 27, 2021.

¹⁰¹ Ibid.

¹⁰² See, for example, the discussion of the Key Stages for Material Flows in the Aluminum Value Chain, Aluminium Stewardship Initiative, “ASI Chain of Custody (CoC) Standard – Guidance, version 2.1,” April 2023, <https://aluminum-stewardship.org/wp-content/uploads/2023/04/ASI-Chain-of-Custody-Standard-Guidance-V2.1-April-2023.pdf> (accessed December 30, 2023), p. 6. Common forms of “unalloyed” aluminum produced by smelters contain between 0.02 to 0.15% silicon and 0.02 to 0.35% iron (and so more than 99% aluminum in all cases). ASM Handbook, “Volume 2: Properties and Selection: Nonferrous Alloys and Special-Purpose Materials ASM Handbook Committee,” pp. 3-14, 1990, <https://doi.org/10.31399/asm.hb.v02.9781627081627>, p. 3.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Aluminium Stewardship Initiative, “ASI Chain of Custody (CoC) Standard – Guidance, version 2.1,” April 2023. 6-11.

Carmakers use several different types of aluminum inputs, each tailored to a different component of a modern vehicle. First, carmakers source alloyed ingots and some unalloyed aluminum ingots that they then melt down, mix, if necessary, with the materials needed for a specific alloy, and cast into components like engine blocks and sections of a vehicle's structure, such as the underbody.¹⁰⁶ Carmakers have said that, by using a casting to make a section of a vehicle from a single aluminum mold rather than by combining lots of other smaller components, they can make manufacturing more efficient and reduce a vehicle's weight.¹⁰⁷

Carmakers also purchase large quantities of "semi-fabricated" aluminum products, an intermediate product that car manufacturers themselves convert into a more specialized product. Semi-fabricated products include aluminum sheet, which carmakers convert into body panels and other parts, and aluminum extrusions, a rod or tube that is "extruded" into a more complex final product by forcing it through a shaped die.¹⁰⁸ The resulting products, known as extrusion profiles, are used to make parts like crossbeams and vehicle frames components, as well as other parts.¹⁰⁹ Semi-fabricated products are made from aluminum alloys suitable to the end use application. To make aluminum sheet, for example, large aluminum alloy slabs are rolled out at a rolling mill into aluminum sheets, which can then be formed into more complex shapes like car body panels.¹¹⁰

¹⁰⁶ "Aluminum Castings Market to Grow Nearly Double as Demand for Energy-efficient and Lightweight Vehicles Burgeons," *Fact.MR*, October 6, 2022, <https://www.prnewswire.com/news-releases/aluminum-castings-market-to-grow-nearly-double-as-demand-for-energy-efficient-and-lightweight-vehicles-burgeons-301642573.html>. CFS Foundry, "Aluminum Die Casting for Engine Blocks," webpage, <https://www.investmentcastchina.com/aluminum-die-casting-for-engine-blocks/> (accessed December 30, 2023).

¹⁰⁷ "Tesla China gives sneak peek at Giga Shanghai operations with new video series," *Teslarati*, December 15, 2021, <https://www.teslarati.com/tesla-giga-shanghai-cost-control-sneak-peek/> (accessed December 30, 2023). Fred Lambert, "Tesla's Giga casting strategy to be adopted by half a dozen other automakers," *electrek*, November 30, 2021, <https://electrek.co/2021/11/30/tesla-giga-casting-strategy-adopted-dozen-automakers/> (accessed December 30, 2023). Dan Carney, "Why the Auto Industry is Following Tesla's Lead into Large-Scale Castings," *Design News*, August 3, 2022, <https://www.designnews.com/automotive-engineering/why-auto-industry-following-teslas-lead-large-scale-castings> (accessed December 30, 2023).

¹⁰⁸ Aluminum Extruders Council, "Automotive Applications Interactive Guide," webpage, <https://aec.org/auto-industry> (accessed December 30, 2023). Aluminum Extruders Council, "Aluminum Extrusion Process," webpage, <https://aec.org/aluminum-extrusion-process> (accessed September 8, 2023).

¹⁰⁹ *Ibid.*

¹¹⁰ Haomei Aluminum, "The Developing Trend of Automotive Aluminum Sheet," blog page, <https://www.autoaluminumsheet.com/a/the-developing-trend-of-automotive-aluminum-sheet.html> (accessed September 8, 2023).

Finally, aluminum is a key component of many specialized parts that carmakers inside and outside China source from industry suppliers, from aluminum alloy wheels to electric vehicle batteries. Aluminum is used in the foil, casings, and trays used for lithium-ion batteries.¹¹¹

¹¹¹ HRW interview with electric vehicle battery expert, January 12, 2023.

II. Aluminum, Xinjiang, and Labor Transfers

Aluminum Producers' Links to Labor Transfers

The primary evidence of companies' participation in labor transfers from Xinjiang comes from media, company, and government statements that describe instances in which businesses have received transfers of Uyghur or other Turkic laborers. These statements promoted companies' participation in labor transfers, characterizing them as part of the Chinese government's poverty alleviation programs in Xinjiang.

The statements frequently use terms associated with the labor transfer program, such as references to the transfer or resettlement of "surplus labor." They at times also refer to transfers from southern Xinjiang, the part of the region that has the highest Uyghur and other Turkic Muslim populations that are the target of labor transfers. Collating and analyzing these statements provides evidence of the aluminum industry's participation in labor transfers.

For example, company and media reporting describe links between Xinjiang East Hope Nonferrous Metals, a large aluminum smelter, and labor transfers. Xinjiang East Hope Nonferrous Metals, a subsidiary of Shanghai-based East Hope Group, produced approximately 800,000 tons of aluminum in 2021.¹¹² East Hope Group's aluminum smelters are co-located with the group's polysilicon operations and coal power plants in the Wucaiwan Industrial Park of Zhundong Economic and Technological Development Zone.¹¹³

¹¹² Reuters reported that in August 2021 local government authorities required East Hope's Xinjiang smelter, which produced 526,900 tons of aluminum from January to July 2021, to keep production at a maximum of 800,000 tons for 2021. Tom Daly, "Aluminum smelters in China's Xinjiang told to cut output," *Reuters*, August 26, 2021, <https://www.nasdaq.com/articles/aluminium-smelters-in-chinas-xinjiang-told-to-cut-output-2021-08-26> (accessed August 14, 2023). East Hope's website does not state the maximum capacity of its Xinjiang smelters.

¹¹³ Seaver Wang and Juzel Lloyd, "Sins of a Solar Empire: An Industry Imperative to Address Unethical Solar Photovoltaic Manufacturing in Xinjiang," *Breakthrough Institute* report, November 15, 2022, https://thebreakthrough.imgix.net/Sins-of-Solar_Report_v5.pdf, p. 16, Figure 6 (accessed December 30, 2023). Global Energy Monitor, "East Hope Metals Wucaiwan Power Station," https://www.gem.wiki/East_Hope_Metals_Wucaiwan_power_station (accessed August 22, 2023). East Hope, "Recruitment Notice (Undated)," https://www.xbrc.com.cn/upload_dir/fileupload/2/20180614/1528963916444/index.html, archived: https://web.archive.org/web/20240104204756/https://www.xbrc.com.cn/upload_dir/fileupload/2/20180614/1528963916444/index.html (accessed December 30, 2023).



A teacher trains Turkic Muslims in Mandarin Chinese. The photograph is featured in a February 2023 article on government officials' promotion of labor transfers in Xinjiang. © 2019 Weixin

East Hope Group stated on its website in March 2020 that Xinjiang East Hope Nonferrous Metals had “received 235 ethnic minority employees from southern Xinjiang,” including in its electrolytic aluminum department.¹¹⁴ The website also stated that the company has “actively absorbed the surplus labor force from southern Xinjiang to transfer employment, effectively solving the employment and living pressure of ethnic minorities.”¹¹⁵ The article also described the training received by ethnic minority workers, including efforts to teach them Mandarin Chinese and address perceived problems in education levels:

In response to their generally low educational background, weak national common language [Mandarin] ability and insufficient skills, the company had set up national common language training classes, job safety training, and arranged employees with more senior qualifications “one-on-one” and

¹¹⁴ East Hope, “新疆维吾尔自治区准东经济技术开发区党工委李绍海一行调研东方希望准东板块” [Li Shaohai, Secretary of the Party Working Committee of Zhundong Economic and Technological Development Zone, Xinjiang Uygur Autonomous Region, and his entourage investigated the Eastern Hope Zhundong Section], March 31, 2020. Archived: <https://archive.vn/iINLL> (accessed December 30, 2023).

¹¹⁵ Ibid.

“teacher leading apprentices” to solve their difficulties and improve their working ability.¹¹⁶

Local government and media reporting from 2017 and 2018 also provide evidence of labor transfers targeting Uyghurs involving Xinjiang East Hope Nonferrous Metals,¹¹⁷ including its aluminum smelting business.¹¹⁸ A 2018 media report, first cited by Horizon Advisory, stated that:

Five Uyghur youths from southern Xinjiang areas such as Kashgar and Hotan officially signed a contract with Xinjiang East Hope Aluminum and became a member of the company. This is the second time that Xinjiang East Hope Aluminum has absorbed surplus labor from southern Xinjiang and transferred them to employment. Up to now, Xinjiang East Hope Aluminum has absorbed and helped 21 Uyghur youths to take up jobs.... At present, among the more than 8,000 employees of Xinjiang East Hope Aluminum, there are more than 460 employees of 27 ethnic minorities such as Uyghurs, Kazakhs, Gelaos, and Tatars. They share the same breath and destiny, and employees of all ethnic groups are as closely united as pomegranate seeds.¹¹⁹

¹¹⁶ Ibid.

¹¹⁷ See, for example, “策勒县人民政府, “策勒县举办 95 名城乡富余劳动力赴乌鲁木齐、昌吉企业就业欢送仪式,” [Qira County held a farewell ceremony for 95 urban and rural surplus laborers going to Urumqi and Changji for employment in enterprises], The People’s Government of Qira County, June 27, 2017, originally at <http://www.xjcl.gov.cn/info/1071/42636.htm>, archived: <https://archive.ph/4ToaK> (accessed December 30, 2023). See also Yasin Osman, “好日子源于党的好政策” [Good days come from the good policies of the Party], Xinjiang Daily, November 15, 2017, <https://archive.vn/QT6Wh> (accessed December 30, 2023). See also Laura Murphy et al, In Broad Daylight, pp. 33-34.

¹¹⁸ “南疆务工人员准东开启新生活” [Southern Xinjiang migrant workers start a new life in Zhundong], Changji Daily, December 27, 2017. <https://archive.vn/6O4Vp> (accessed December 30, 2023). See also Zhundong Development Zone Up Close, “2017 年准东‘春风行动’暨吉木萨尔镇富余劳动力专场招聘会顺利召开” [The 2017 Zhundong “Spring Breeze Action” and the special job fair for the surplus labour force in Jimsar Town successfully held], Weixin, January 4, 2017, <https://archive.ph/o7LEo> (accessed December 30, 2023).

¹¹⁹ “东方希望集团为民族团结贡献正能量” [East Hope Group contributes positive energy to national unity], Pudong Government Affairs Newspaper, May 22, 2018, <http://pudong-epaper.shmedia.tech/Article/index?aid=2088484>, archived: <https://web.archive.org/web/20231219152401/http://pudong-epaper.shmedia.tech/Article/index?aid=2088484> (accessed December 30, 2023). See also Horizon Advisory, Base Problem, p. 15. See also Zhundong Development Zone Up Close, “开发区五名南疆籍富余劳动力转移就业人员正式成为企业的产业工人” [Five South Xinjiang surplus labour transfer workers in the development zone officially became industrial workers of the enterprise], Weixin, April 28, 2018, <https://archive.ph/rPTPP#selection-227.1-233.218> (accessed December 30, 2023).



Photo of a local government ceremony in June 2017 shared by the People's Government of Qira County to mark the departure of labor transfer workers from Qira County to companies in Urumqi and Changji. The article accompanying the photo includes a description of transfers to Xinjiang East Hope Nonferrous Metals, a Xinjiang-based aluminum producer. © 2019 The People's Government of Qira County

Company and media reports also provide evidence of links between smaller Xinjiang-based aluminum smelters and labor transfers. For example, a 2017 article cited by Horizon Advisory described labor transfers involving Xinjiang Tianlong Mining,¹²⁰ which operates a smelter producing approximately 250,000 tons of aluminum per year.¹²¹ The article stated that surplus laborers from southern Xinjiang have “started their new life” in Fukang, where Xinjiang Tianlong’s smelter is located.¹²² The article then describes efforts by Fukang Xinjiang Tianlong Mining to teach Chinese to newly arrived workers, who all have Uyghur names:

¹²⁰ “新疆电解铝产能的天花板已然形成 中国铝产业“龙头”显现” [The ceiling of Xinjiang's electrolytic aluminum production capacity has formed and the "leader" of China's aluminum industry has emerged], Yangtze River Nonferrous Metals Net, October 27, 2020, https://finance.sina-cn.translate.google/futuremarket/gypzx/2020-10-27/detail-iiznctkc7899814.d.html?from=wap&_x_tr_sl=auto&_x_tr_tl=en&_x_tr_hl=en-US, archived: <https://web.archive.org/web/20240104211004/https://finance.sina.cn/futuremarket/gypzx/2020-10-27/detail-iiznctkc7899814.d.html?from=wap> (accessed December 30, 2023).

¹²¹ Jiang Xuejiao, “南疆富余劳动力转移就业“转”出新天地” [Southern Xinjiang Surplus Labor Force's "Transferred" to a New World], CCTV, June 23, 2017, <https://china.huanqiu.com/article/9CaKrnK3GY9>, archived: <https://web.archive.org/web/20230623144811/https://china.huanqiu.com/article/9CaKrnK3GY9> (accessed December 30, 2023).

¹²² Ibid.

In the training classroom of Fukang Xinjiang Tianlong Mining Co., Ltd., after the group patriotic singing activity before the training, the teachers conducted training on Chinese daily language and labor law. After nearly half a month of training, the students' Chinese ability has been significantly improved.... They will also be trained for different skill positions according to their specialties.

Horizon Advisory stated in its 2022 report that it reviewed a local government document stating that in 2020 Xinjiang Tianlong received subsidies for “absorbing” 63 workers in identified “key employment groups.”¹²³

Another smelter, Xinjiang Zhonghe (Joinworld), which produces 180,000 tons of aluminum annually,¹²⁴ is linked by media and company reporting to labor transfers through both its parent company, TBEA, a Chinese energy conglomerate,¹²⁵ and Tianchi Energy, an energy company. Xinjiang Zhonghe and TBEA jointly own Tianchi Energy, a coal mining and sales company.¹²⁶ Xinjiang Zhonghe’s aluminum smelter is co-located with TBEA coal powerplants and polysilicon operations in the Zhundong Economic and Technological Development Zone.¹²⁷

¹²³ Horizon Advisory, “Base Problem,” p. 30. Human Rights Watch could not access the website containing the local government document referenced in the Horizon Advisory report. The webpage may have been removed from the internet.

¹²⁴ Xinjiang Zhonghe, “Marketing Material,” January 30, 2021, <http://www.joinworld.com/images/shouce-hejin.pdf>, archived: <https://web.archive.org/web/20221210040709/http://www.joinworld.com/images/shouce-hejin.pdf>, p. 2 (accessed December 30, 2023).

¹²⁵ TBEA, “Company Profile,” <https://www.tbea.com/tbea/en/corplnfo.html>, archived: <https://web.archive.org/web/20230410162456/https://www.tbea.com/tbea/en/corplnfo.html> (accessed December 30, 2023). The profile states that TBEA has listed three subsidiaries, including Xinjiang Joinworld and Xinte Energy. It also notes that “TBEA has also developed into a major export base of such new materials as polysilicon and electronic aluminum products.”

¹²⁶ Ibid. See also, TBEA, “Annual Report 2021,” <http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESHTOCK/2022/2022-4/2022-04-12/7973385.PDF>, archived: <https://web.archive.org/web/20230921183751/http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESHTOCK/2022/2022-4/2022-04-12/7973385.PDF> (accessed December 30, 2023), p. 33. See also Xinjiang Zhonghe, “2021 Annual Report,” <https://q.stock.sohu.com/newpdf/202247937183.pdf>, archived: <https://web.archive.org/web/20230921184047/https://q.stock.sohu.com/newpdf/202247937183.pdf> (accessed December 30, 2023), pp. 23, 24, 48.

¹²⁷ Seaver Wang and Juzel Lloyd, “Sins of a Solar Empire,” p. 15, Figure 5. Human Rights Watch also independently verified the location of Xinjiang Zhonghe’s aluminum smelter using its own open-source research.



A photograph posted to the Weibo account of Jimsar County Integrated Media Center in March 2023 shows labor transfer workers (wearing red hats) from Jimsar County, Xinjiang. The article describes the recruitment of labor transfer workers for a coal mine belonging to Tianchi Energy, co-owned by a Xinjiang-based aluminum producer, Xinjiang Zhonghe (Joinworld). © 2023 Weibo

Sheffield Hallam University has described TBEA's participation in poverty alleviation and labor transfers, including involving Tianchi Energy.¹²⁸ For example, a 2019 media article stated that local officials in Jimsar County, Xinjiang organized a "labor transfer coordination team" and visited the Zhundong Economic and Technological Development Zone to discuss transfers with four companies, including "Tianchi Energy [and] TBEA Tianchi Energy."¹²⁹ The article stated that "preliminary employment intentions were reached with four companies for a "transferable labor force" of 139 people.¹³⁰ A March 2023 media article also described labor transfers from Jimsar County to a Tianchi Energy coal mine.¹³¹

¹²⁸ Laura Murphy et al., "In Broad Daylight," pp. 31-32.

¹²⁹ "天山早春图—最美的是你们追梦的模样" [Tianshan early spring picture – The most beautiful thing is the sight of you pursuing your dreams], Weixin, February 26, 2019, https://mp.weixin.qq.com/s?src=11×tamp=1615825900&ver=2948&signature=oSzRLHRnXAl9c757zP-KVnC3nbRh8mF1yeHK4l2Xj4ju66uBz3MYffmEwpp8ce*gG5oAnr8CGCTFVIX2xFv4mEo64tAmy2jIBGsBJ698IrymRCIAG2X7*gmLciUsA4lC&new=1, archived: <https://archive.ph/qm4AI> (accessed December 30, 2023).

¹³⁰ Ibid.

¹³¹ "吉木萨尔县“点对点、一站式”向准东企业精准服务" [Jimsar County provides "point-to-point, one-stop" precise services to enterprises in Zhundong], Weibo, March 26, 2023, <https://weibo.com/6837799539/Mz2Bjq1yF>, archived: <https://archive.is/qhrLj> (accessed December 30, 2023).

In assessing the risk of aluminum companies' participation in labor transfers, aluminum industry experts told Human Rights Watch that aluminum smelting is a highly technical process, relying largely on specialized workers, which could make it harder for companies to absorb labor transfer workers. However, aluminum producers' operation of coal power plants, co-located with smelters, as well as companies' need for other less skilled workers, from security guards to cooks and cleaners, creates additional opportunities for transferred workers.

For example, a 2021 media story on labor transfers at a Xinjiang coal power plant – located in the same Wucaiwan Industrial Park, Zhundong Economic and Technological Development Zone, as several aluminum smelters¹³² – described two Uyghur workers employed as a security guard and cleaner:

Mijit and his wife, Amangul Itti, are both from Janyterek Town, Kargilik County. Before he came to Huadian Xinjiang Zhundong Wucaiwan Power Generation Company to work, he was a local noodle chef with a monthly income of 3,500 yuan [US\$480]. Apart from normal expenses, the rest of the money was basically used for the treatment of his frail wife.... At the end of 2018, benefiting from the southern Xinjiang surplus labor force transfer program, the couple came to Huadian Xinjiang Zhundong Wucaiwan Power Generation Company to work. Mijit works in security, and his wife is a cleaner. The couple's monthly income is about 8,000 yuan [\$1,090].¹³³

The article stated that Mijit is one of “nearly 2,000 workers transferred from surplus labor in southern Xinjiang in the Zhundong Economic and Technological Development Zone,” and noted the ability of transferred laborers to progress into more skilled jobs:

¹³² This includes Xinjiang Shenhua Coal and Electricity and Xinjiang Qiya Aluminum and Power. Zhang Qinfeng, “新疆铝企的崛起” [The rise of Xinjiang aluminum companies], China Securities Journal, August 29, 2019, <https://www.shfe.com.cn/news/news/911334738.html>, archived: <https://web.archive.org/web/20230921191546/https://www.shfe.com.cn/news/news/911334738.html> (accessed December 30, 2023). See also Horizon Advisory, “Base Problem,” pp. 15, 21, 22.

¹³³ 【祖国颂】南疆转移就业人员：“参加升国旗仪式，是我最大的光荣” [Relocated workers from southern Xinjiang: “Participating in the flag-raising ceremony is my greatest honor], Tianshan Net-Xinjiang Daily Original, October 3, 2021, https://www.ts.cn/xwzx/shxw/202110/t20211003_5825584.shtml, archived: <https://archive.is/nrOCz> (accessed August 17, 2023).

In recent years, these surplus laborers in southern Xinjiang have been hard-working. Some have bought private cars, some have won awards for being excellent migrant workers, and some have become skilled workers. They are using hard work and diligence to create their own good life.¹³⁴

Another 2021 article, which discusses the employment of 368 new rural surplus laborers in Barkol County, Xinjiang, including in the coal industry, describes the training of laborers in “forklifts, excavators, Chinese cooking, electric welding and other types of work.”¹³⁵

Aluminum Producers and the XPCC

In addition to media and company statements providing evidence of participation in labor transfers, an additional indicator of links between the aluminum industry and forced labor is the relationship between two of Xinjiang’s largest aluminum smelters, Xinfu Group Xinjiang and Tianshan Aluminum, and the Xinjiang Production and Construction Corps (XPCC).

The XPCC is a military-economic entity that has been identified as an actor that plays a key role in the region’s repression of Uyghurs, including forced labor.¹³⁶ The XPCC has wide powers within Xinjiang, and operates as a regional government, a paramilitary organization, and a state-run corporate enterprise, holding direct stakes in thousands of companies in Xinjiang.¹³⁷ XPCC companies frequently both participate in and facilitate labor transfers.¹³⁸

¹³⁴ Ibid.

¹³⁵ “季度巴里坤县新增富余劳动力转移就业 368 人” [In the first quarter, 368 new surplus laborers were transferred to employment in Barkol County], China News Service Xinjiang, April 26, 2021, <http://www.xj.chinanews.com.cn/dizhou/2021-04-26/detail-ihaktsyzo518203.shtml>, archived: <https://web.archive.org/web/20230622130201/http://www.xj.chinanews.com.cn/dizhou/2021-04-26/detail-ihaktsyzo518203.shtml> (accessed December 30, 2023).

¹³⁶ See, for example, Laura T. Murphy, Nyrola Elimä, and David Tobin, “‘Until nothing is left’: China’s Settler Corporation and its Human Rights Violations in the Uyghur Region,” Sheffield Hallam University and Helena Kennedy Centre for International Justice report, July 2022, <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/until-nothing-is-left> (accessed December 30, 2023). See also, James Millward and Dahlia Peterson, “China’s System of Oppression in Xinjiang: How it Developed and How to Curb It,” Brookings Institute, September 2020, pages https://www.brookings.edu/wp-content/uploads/2020/09/FP_20200914_china_oppression_xinjiang_millward_peterson.pdf (accessed December 30, 2023).

¹³⁷ Ibid.

¹³⁸ For discussion of the XPCC’s role in labor transfers, see for example, “Until nothing is left,” pp. 45-52. See also, Dr. Adrian Zenz, “Coercive Labor in Xinjiang: Labor Transfer and the Mobilization of Ethnic Minorities to Pick Cotton,” New Lines Institute intelligence briefing, December 2020, <https://newlinesinstitute.org/wp-content/uploads/20201214-PB-China-Cotton-NLISAP-MJL.pdf> (accessed December 30, 2023).

The XPCC and its leadership were sanctioned by the US Department of the Treasury in July 2020 for their role in human rights abuses in Xinjiang. In imposing sanctions, the Treasury Department stated: “The XPCC is a paramilitary organization in the XUAR that is subordinate to the Chinese Communist Party (CCP). The XPCC enhances internal control over the region by advancing China’s vision of economic development in XUAR that emphasizes subordination to central planning and resource extraction.”¹³⁹ In June 2021, the XPCC was identified by the US Department of Commerce as linked to forced labor.¹⁴⁰

The XPCC is organized by division, with each division in effect operating as a local government administration for the area it covers.¹⁴¹ Tianshan Aluminum, which has an annual capacity of 1.2 million tons,¹⁴² produces aluminum in the Shihezi Development Zone, controlled by the XPCC’s Eighth Division.¹⁴³ The company’s own materials have referred to the company as part of the XPCC’s Eighth Division (Xinjiang Production and Construction Corps Eighth Division Tianshan Aluminum Co., Ltd., 新疆生产建设兵团农八师天山铝业有限公司).¹⁴⁴ The company’s website states that it is a “Xinjiang-aiding enterprise that responds to the call of the state and supports the Xinjiang Production and Construction Corps.”¹⁴⁵ XPCC-media celebrated Tianshan Aluminum’s 2020 listing on the

¹³⁹ “Treasury Sanctions Chinese Entity and Officials Pursuant to Global Magnitsky Human Rights Executive Order,” US Department of the Treasury press release, July 31, 2020, <https://home.treasury.gov/news/press-releases/sm1073> (accessed December 30, 2023).

¹⁴⁰ Ibid. Bureau of Industry and Security, US Department of Commerce, “Addition of Certain Entities to the Entity List,” June 24, 2021, <https://www.federalregister.gov/documents/2021/06/24/2021-13395/addition-of-certain-entities-to-the-entity-list> (accessed December 30, 2023).

¹⁴¹ Liu Xin and Yu Jincui, “Divisions of XPCC contribute to social stability, promote residents’ income,” *Global Times*, September 23, 2020, <https://www.globaltimes.cn/content/1201866.shtml> (accessed December 30, 2023). See also, Laura Murphy et al., “Until Nothing is Left,” p. 4.

¹⁴² Tianshan Aluminum, “Company Profile,” <http://www.xjtsly.net/node/42>, archived: <https://web.archive.org/web/20220504010602/http://xjtsly.net/node/42> (accessed December 30, 2023).

¹⁴³ Zhu Yi, “石河子经济技术开发区推动产业转型打造兵团科技创新高地” [Shihezi Economic and Technological Development Zone promotes industrial transformation and creates a scientific and technological innovation highland of the Corps], *Bingtuannet.com*, December 30, 2022, http://www.bingtuannet.com/btrb_std/202212/t20221230_144280.html, archived: https://web.archive.org/web/20230510155230/http://www.bingtuannet.com/btrb_std/202212/t20221230_144280.html (accessed December 30, 2023). “石河子经开区致力打造兵团首个“千亿级园区” [Shihezi Economic Development Zone is committed to building the Corps’ first “100-billion-level park”], Sohu, March 23, 2021, https://www.sohu.com/a/456849689_748852, archived: https://web.archive.org/web/20230510155314/https://www.sohu.com/a/456849689_748852 (accessed December 30, 2023).

¹⁴⁴ See, for example, Xinjiang Production and Construction Corps Eighth Division Tianshan Aluminum Co., Ltd., “Corporate Bond Semi-Annual Report (First half of 2018),” August 2018, <http://gu.sina.cn/bd/hq/notice.php?annid=8755881>, archived: <https://web.archive.org/web/20230922160651/http://qccdata.qichacha.com/ReportData/PDF/b7886dd4d4492753f8d3ff05d3dfe18c.pdf> (accessed December 30, 2023).

¹⁴⁵ Tianshan Aluminum, “About Us, Subsidiaries Introduction,” <http://www.xjtsly.net/node/40>. Archived here: <https://web.archive.org/web/20220401091651/http://xjtsly.net/node/40> (accessed December 30, 2023).

Shenzhen Stock Exchange as a “breakthrough in listing of private enterprises in the Corps.”¹⁴⁶

The close links between the XPCC and Tianshan Aluminum create a significant risk that the company is participating in labor transfers. In 2017, China’s Ministry of Human Resources and Social Security chose Tianshan Aluminum as one of 33 companies in Xinjiang named as a “national poverty alleviation base”, stating that such companies were an “important carrier to absorb the employment of poor rural laborers.”¹⁴⁷

Xinfa Group Xinjiang, a subsidiary of Shandong Xinfa,¹⁴⁸ a Shandong-based aluminum producer, is based in an industrial park in Wujiaqu City, Xinjiang controlled by the XPCC’s Sixth Division.¹⁴⁹ Xinfa Group Xinjiang operates an aluminum smelter with 1.9 million tons annual capacity, as well as thermal power plants, coal mines, and a railway.¹⁵⁰ A 2021 recruitment advertisement for the company states that it employs over 4,000 people and refers to Xinfa Group Xinjiang as part of the Sixth Division (Xinjiang Production and Construction Corps Agricultural Sixth Division Aluminum Co., 新疆农六师铝业有限公司).¹⁵¹

¹⁴⁶ “天山铝业挂牌上市！兵团民企上市实现零突破” [Tianshan Aluminum goes public! XPCC private enterprise listing achieves zero breakthrough], Sohu, November 2, 2020, https://www.sohu.com/a/428943863_748852, archived: https://web.archive.org/web/20221216152817/https://www.sohu.com/a/428943863_748852 (accessed December 30, 2023).

¹⁴⁷ Ministry of Human Resources and Social Security, “Notice from the General Office of the Ministry of Human Resources and Social Security and the Comprehensive Department of the State Council Poverty Alleviation Office on the Announcement of the List of National Employment Poverty Alleviation Bases,” June 6, 2021, http://www.mohrss.gov.cn/SYrlzyhshbzb/jiuye/zcwj/nongmingong/201706/t20170623_273041.html, archived: https://web.archive.org/web/20211117012646/http://www.mohrss.gov.cn/SYrlzyhshbzb/jiuye/zcwj/nongmingong/201706/t20170623_273041.html (accessed December 30, 2023).

¹⁴⁸ “信发集团新疆公司：战天斗地闯大漠 行业“领头雁”是这样炼成的” [Xinfa Group Xinjiang Company: This is how the “leading wild goose” in the desert industry was made], Shandong Provincial People’s Government Office in Xinjiang, January 27, 2021, <http://fromshandong.com/portal/article/index/id/100.html>, archived: <https://web.archive.org/web/20221211072925/https://fromshandong.com/portal/article/index/id/100.html> (accessed December 30, 2023).

¹⁴⁹ Lanzhou Vocational and Technical University of Resources and Environment, Recruitment Advertisement, “Xinjiang Nongliushi Aluminum Co., Ltd,” April 3, 2020, <https://yix.lzre.edu.cn/info/1093/1440.htm>, archived: <https://web.archive.org/web/20230510152448/https://yix.lzre.edu.cn/info/1093/1440.htm> (accessed December 30, 2023).

¹⁵⁰ Ibid. “信发集团新疆公司：战天斗地闯大漠 行业“领头雁”是这样炼成的” [Xinfa Group Xinjiang Company: This is how the “leading wild goose” in the desert industry was made], Shandong Provincial People’s Government Office in Xinjiang, January 27, 2021, <http://fromshandong.com/portal/article/index/id/100.html>, archived: <https://web.archive.org/web/20221211072925/https://fromshandong.com/portal/article/index/id/100.html> (accessed December 30, 2023).

¹⁵¹ Gansu Nonferrous Metallurgy Vocational and Technical College, “Xinfa Group Xinjiang, Announcement on Joint Recruitment of Enterprise Employees,” June 2, 2021, https://www.sohu.com/a/470117436_121106869, archived: https://web.archive.org/save/https://www.sohu.com/a/470117436_121106869 (accessed December 30, 2023).

Xinfa Group Xinjiang is described as an XPCC company in XPCC-media materials.¹⁵² The links between the Xinfa Group Xinjiang and the XPCC date back to 2009, when Shandong Xinfa and the XPCC signed a cooperation agreement to build a Xinjiang aluminum project and “make due contributions to the economic development of the XPCC and even the autonomous region, and contribute to the friendship established by Shandong, Xinjiang, and the XPCC for decades.”¹⁵³

A December 2022 document issued by the XPCC’s leadership, setting a three-year action plan for “cultivation of high-quality enterprises in the XPCC,” referred to both Tianshan Aluminum Group and Xinjiang Group Xinfa as XPCC companies, with the latter referred to by its XPCC-name, Xinjiang Agricultural Sixth Aluminum Co., Ltd.¹⁵⁴ The document identified aluminum as a focus industry for the XPCC.¹⁵⁵

Human Rights Watch wrote to Tianshan Aluminum in December 2023 to ask whether the XPCC Eighth Division held shares in Tianshan Aluminum and what role the XPCC Eighth Division played in management and oversight of the company. Tianshan Aluminum did not reply. Human Rights Watch also wrote to Xinfa Group in December 2023 to ask whether the XPCC Sixth Division held shares in Xinfa Group Xinjiang and what role the Sixth Division played in the management and oversight of the company. Xinfa Group did not reply.

Coal, Labor Transfers, and Aluminum

The reliance of Xinjiang’s aluminum sector on coal power creates additional forced labor risks. Xinjiang-based coal mines that supply the aluminum industry are participating in

¹⁵² “兵团两铝企入选全国符合行业规范企业名单” [Two aluminum companies in Bingtuan were selected into the national list of enterprises that comply with industry standards], Bingtuan Daily, January 21, 2021, http://www.bingtuanet.com/szyw/202101/t20210121_96295.html, archived: https://web.archive.org/save/http://www.bingtuanet.com/szyw/202101/t20210121_96295.html (accessed December 30, 2023).

¹⁵³ “农六师与山东信发集团签订项目建设合作协议” [The Sixth Agricultural Division signed a project construction cooperation agreement with Shandong Xinfa Group], Nongjitong-com, May 13, 2009, <https://www.nongjitong.com/blog/2009/25359.html>, archived: <https://web.archive.org/web/20230208190703/https://www.nongjitong.com/blog/2009/25359.html> (accessed December 30, 2023).

¹⁵⁴ Xinjiang Production and Construction Corps, General Office, “Three-year Action Plan for Gradient Cultivation of High-Quality Enterprises in Xinjiang Production and Construction Corps (2023-2025),” December 17, 2022, <http://www.xjbt.gov.cn/c/2023-01-19/8260419.shtml>, archived: <https://web.archive.org/web/20230510001053/http://www.xjbt.gov.cn/c/2023-01-19/8260419.shtml> (accessed December 30, 2023).

¹⁵⁵ Ibid.

labor transfer programs. China's central government in 2014 identified Xinjiang's coal industry as a target for labor transfers, stating that, "in the face of more and more young and working-age farmers who have left the agriculture of the three [southern Xinjiang] prefectures, we will actively promote the transfer of surplus agricultural labor to key industries such as oil and gas, coal, electricity, and coal chemicals."¹⁵⁶

Human Rights Watch found evidence of coal mining companies participating in labor transfers, including companies with close links to the aluminum industry. Xinjiang Energy (Group), for example, which had an annual coal production capacity in 2022 of 5.75 million tons,¹⁵⁷ stated in a March 2020 briefing that it had accepted 295 people through the southern Xinjiang surplus labor force transfer program:

For us, political security is about job stability and poverty alleviation. Recently, the [Xinjiang Uyghur] Autonomous Region has intensively arranged the transfer of employment personnel in southern Xinjiang, and various enterprises have received a large number of them. The company has accepted 295 people through the coordination of the [Xinjiang Uyghur] Autonomous Region and arranged them in eight units. The company management will issue safety management guidance for these personnel as soon as possible, and these eight units will develop control measures focused on ensuring safety. This work is the responsibility of the party committee secretary and party branch secretary and any problems will be strictly investigated.¹⁵⁸

¹⁵⁶ “加快南疆三地州劳动密集型产业发展促进就业问题研究” [Research on the issue of accelerating the development of labor-intensive industries and promoting employment in the three prefectures of southern Xinjiang], National Bureau of Statistics press release, December 4, 2014, http://xjzd.stats.gov.cn/xwfb/xxfx/201412/t20141204_4220.html, archived: https://web.archive.org/web/20201222062622/http://xjzd.stats.gov.cn/xwfb/xxfx/201412/t20141204_4220.html (accessed December 30, 2023).

¹⁵⁷ China Lianhe Credit Rating Company, “Long-Term Credit Status of the Main Body of Xinjiang Energy (Group) Co.,” January 17, 2023, <https://www.lhratings.com/reports/Bo21227-P66961-2022.pdf>, archived: <https://web.archive.org/web/20230803150828/https://www.lhratings.com/reports/Bo21227-P66961-2022.pdf> (accessed December 30, 2023).

¹⁵⁸ “新疆能源（新疆公司）公司召开安委会（扩大）会议” [Xinjiang Energy Company held a Safety Committee (Enlarged) meeting], Xinjiang Energy Voice, April 2, 2020, https://mp.weixin.qq.com/s?src=11×tamp=1689976454&ver=4665&signature=TMERhs*IZ*nYjAe8W3XCe8PCSjODK6Q44xnINsVI*gZW*MReP3Dlr*WKL4z8-T1vlopDMdVaMzxAcjMF1tPH7uaRoCS6m8BzHdhuDjOjleMRLZVBxHDktuFsoUchcbp&new=1, archived: <https://archive.ph/nYimq> (accessed December 30, 2023).

Xinjiang Energy (Group) sells coal to aluminum smelters, including Tianshan Aluminum, and also buys and trades aluminum ingots.¹⁵⁹ Xinjiang Energy (Group) also co-owns Xinjiang Tianlong Hope Energy, which operates a coal mine in Xinjiang's massive Zhundong coal field, with Xinjiang East Hope Nonferrous Metals.¹⁶⁰

An August 2020 Xinjiang Energy (Group) report describes the experience of a Uyghur worker at one of the company's coal mines, calling the 22-year-old Ahmetjan Mehmetimin a "southern transfer worker."¹⁶¹ The report said he arrived at work at the company's Zhundong coal mine in 2017.¹⁶² Since then, Mehmetimin has made "great progress in Mandarin" and has obtained a welding license.¹⁶³ Furthermore, the report said the outbreak of the Covid-19 pandemic in 2020 meant that Mehmetimin was unable to visit his family for the Eid al-Adha holiday, with Mehmetimin stating that he felt homesick as he hadn't celebrated the holiday with his family for three years.¹⁶⁴

Xinjiang Energy (Group)'s efforts to paint a positive image of Mehmetimin's experience, reflects the way that other government, company, and Chinese state media documents portray the government's labor transfer program as benefitting Uyghurs. For example, an April 2021 media article describing labor transfers at Heiyanquan Coal Mine recounts the experience of Karemu Kuketi, a villager from Hami prefecture in eastern Xinjiang:

¹⁵⁹ "国家能源集团新疆公司：保供拓域笃行不怠" [Xinjiang Company of National Energy Group: Guaranteeing supply and expanding the territory will not slack off], Xinhua Finance, March 3, 2022, https://m.mysteel.com/22/0303/08/AB1FD49EA2AD426F_abc.html, archived: https://web.archive.org/web/20230803150015/https://m.mysteel.com/22/0303/08/AB1FD49EA2AD426F_abc.html (accessed December 30, 2023). China Lianhe Credit Rating Company, "Long-Term Credit Status of the Main Body of Xinjiang Energy (Group) Co.," January 17, 2023, <https://www.lhratings.com/reports/Bo21227-P66961-2022.pdf>, archived: <https://web.archive.org/web/20230803150828/https://www.lhratings.com/reports/Bo21227-P66961-2022.pdf> (accessed December 30, 2023).

¹⁶⁰ "新疆天隆希望能源有限公司 2017 年度第一次股东大会胜利闭幕," [The first shareholders meeting of Xinjiang Tianlong Hope Energy Co., Ltd. In 2017 concluded successfully], Shandong Tianlong press release, November 17, 2017, <http://www.tianlonggroup.com.cn/index.php/news/info/id/5323>, archived: <https://archive.ph/qOhk8> (accessed December 30, 2023). Xinjiang Tianlong Hope Energy Co. Recruitment Positions, 2022, <http://www.zgmt.net/company/company-show.php?id=46442>, archived: <https://archive.ph/oAtv7> (accessed December 30, 2023).

¹⁶¹ "准东露天煤矿：平凡而又坚硬的他们" [Zhundong Open-pit Coal Mine – Ordinary but tough people], Xinjiang Energy Voice, August 3, 2020, https://mp.weixin.qq.com/s?src=11×tamp=1690833419&ver=4684&signature=4*bWzHqCR33bl-bYxcYtBNLzCKBUTr3LyXoD3Al2l4*WHMO03xPlpMDTOhy9F9UqYt1MurgwFPmP4OGZwfgPa9AFKEks2Gb8GNDH6IsAWRp4mXlGn05bqhAh11r2omMq&new=1, archived: <https://archive.is/KC9Yu> (accessed December 30, 2023).

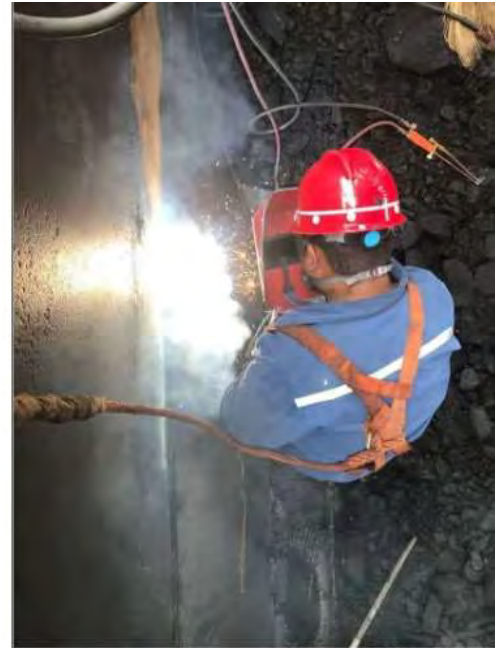
¹⁶² Ibid.

¹⁶³ Ibid.

¹⁶⁴ Ibid.

There are four people in the family of Karim Kuketi, a villager in Haiziyan Village, Haiziyan Township. Karim's family's income mainly depends on raising livestock at home and doing odd jobs by himself. The income is not high. This time he applied for Longmay Group Yinxin Mining Investment Co., Ltd. Heiyanquan Coal Mine and became a mine truck driver. Karim Kuketi told the reporter that he has a B2 driver's license and is very happy to work in the coal mine for 7,000 yuan a month.¹⁶⁵

The positive portrayal of Uyghur workers in company, government, and media reports downplays the Chinese government's abusive treatment of Uyghurs in Xinjiang, as well as evidence of coercion in the labor transfer program itself. The government's restrictions on access to Xinjiang, as well as the risk of reprisals against workers that speak to independent auditors, make it impossible to investigate further the circumstances of the hiring and continued employment of workers like Mehmetimin and Kuketi.



A photograph in a Xinjiang Energy (Group) publication from August 2020 shows what it says is a labor transfer worker welding at a company coal mine. Xinjiang Energy (Group) supplies coal to Xinjiang's aluminum industry. © 2020 Xinjiang Energy Voice

Aluminum Flows from Xinjiang into the Wider Supply Chain

Aluminum produced in Xinjiang exits the region and then enters China's wider aluminum supply chain, creating a risk that aluminum products made elsewhere in China, including cars and car parts, contain aluminum linked to forced labor.

Xinjiang's aluminum industry possesses relatively little capacity either to process aluminum into alloyed products or to produce the "semi-fabricated" products, like aluminum sheet or foil, that are subsequently converted and used to make other more

¹⁶⁵ "一季度巴里坤县新增富余劳动力转移就业 368 人" [In the first quarter, 368 new surplus laborers were transferred to employment in Barkol County], China News Service Xinjiang, April 26, 2021, <http://www.xj.chinanews.com.cn/dizhou/2021-04-26/detail-ihaktsyzo518203.shtml>, archived: <https://web.archive.org/web/20230622130201/http://www.xj.chinanews.com.cn/dizhou/2021-04-26/detail-ihaktsyzo518203.shtml> (accessed December 30, 2023).

specialized goods.¹⁶⁶ As a result, much of Xinjiang’s aluminum is shipped out of the region as “unalloyed” aluminum ingots, traveling thousands of kilometers to reach companies in other parts of China for further processing.¹⁶⁷ Once an unalloyed aluminum ingot has been melted and mixed with other materials to make an alloyed product, it is impossible to physically distinguish aluminum produced in one country or region with aluminum from anywhere else.

In some cases, downstream manufacturers outside Xinjiang, including car industry suppliers, source aluminum directly from XUAR-based companies. For example, Xinjiang Zhonghe, a Xinjiang-based smelter, stated in January 2021 marketing material¹⁶⁸ that it supplies aluminum products to three subsidiaries of Chinalco, China’s state-backed

¹⁶⁶ China Nonferrous Metals Industry Association, “新疆火电铝仍存诸多挑战” [Xinjiang Thermal Power Aluminum Still Faces Many Challenges], February 14, 2023, <https://www.chinania.org.cn/html/hangyetongji/tongji/2023/0214/52548.html>, archived: <https://web.archive.org/web/20230508151801/https://www.chinania.org.cn/html/hangyetongji/tongji/2023/0214/52548.html> (accessed December 30, 2023). The article states: “The electrolytic aluminum enterprises in Xinjiang are basically facing the embarrassing situation of ‘both ends are outside.’.... On the consumer side, the electrolytic aluminum market in Xinjiang has little demand, and most of the electrolytic aluminum needs to be shipped to East China, South China, and Central China for sales, which increases transportation costs.” Some Xinjiang-based smelters have begun to cast their own alloys and produce their own semi-fabricated products. For example, Xinjiang Agricultural Sixth Division Aluminum produces aluminum rods for welding as but also exports ingots from the region to the rest of China.

“二十大精神在基层 | 新疆农六师铝业有限公司投资 400 余亿元建成绿色循环经济产业集群” [The spirit of the 20th National Congress is at the grassroots level - Xinjiang Agricultural Sixth Aluminum Co., Ltd. invested more than 40 billion yuan to build a green circular economy industrial cluster], Corps Daily-Tuanju, November 11, 2022, http://www.huyangnet.cn/content/2022-11/11/content_1696896.html, archived: <https://archive.is/ZYdms> (accessed December 30, 2023). Xinjiang Zhonghe’s marketing material states that it produces aluminum alloy, including alloyed bars and wire, as well as aluminum ingots. Xinjiang Zhonghe, “Marketing Material,” January 30, 2021, <http://www.joinworld.com/images/shouce-hejin.pdf>, archived: <https://web.archive.org/web/20221210040709/http://www.joinworld.com/images/shouce-hejin.pdf>, (accessed December 30, 2023).

¹⁶⁷ “SMM Analysis: Xinjiang accounted for 15.3% of China Aluminum Production from January to November, Ranking Second,” *SMM*, December 15, 2022, <https://news.metal.com/newscontent/102036646/SMM-Analysis-Xinjiang-Accounted-for-153-of-China-Aluminum-Production-from-January-to-November-Ranking-Second/> (accessed December 30, 2023). Tianshan Aluminum Group’s 2020 Annual Report states that the company’s main product is “standard aluminum ingots.” Tianshan Aluminum Group, “2020 Annual Report.” See also Henan Shenhua 2020 Annual report, stating that the company’s Xinjiang-based smelter is responsible for more than 80 percent of the company’s aluminum production and that aluminum ingot sales represent more than 64 percent of Henan Shenhua Group’s operating income. Henan Shenhua, “2020 Annual report.” The report states that Henan Shenhua’s products are sold across China, including to Huadong Region (36 percent), Central China (33 percent), and other areas (South China, North China, etc.) (31 percent).

¹⁶⁸ Xinjiang Zhonghe, “Marketing Material,” January 30, 2021, <http://www.joinworld.com/images/shouce-hejin.pdf>, archived: <https://web.archive.org/web/20221210040709/http://www.joinworld.com/images/shouce-hejin.pdf> (accessed December 30, 2023).

aluminum producer: Chalco Ruimin,¹⁶⁹ Chalco Southwest Aluminum,¹⁷⁰ and Chalco Henan Luoyang Aluminum.¹⁷¹ Xinjiang Zhonghe's 2022 mid-year report, published in September 2022, also referenced Chalco Ruimin as a downstream customer.¹⁷² The report stated that, "through long-term inspection and cooperation, the company has cooperated with many international, well-known domestic manufacturers such as ... Chinalco Ruimin."¹⁷³ Xinjiang Zhonghe's 2022 annual report, published in April 2023, used almost identical language but excluded reference to the company's downstream customers.¹⁷⁴ Chalco Ruimin, Chalco Southwest Aluminum, and Chalco Henan Luoyang Aluminum produce aluminum sheet and other products for car manufacturers. A Chalco website lists Tesla as a cooperative partner for its aluminum products, as well as Chinese carmaker SAIC, which has joint ventures with

¹⁶⁹ Chalco Ruimin's ASI member page states that the company operates a casting house, and that the company's processes include remelting and casting, hot rolling, cold rolling, and finishing. The ASI entry also states that the company produces aluminum materials for the transportation industry. Aluminium Stewardship Initiative, "ASI Member: Chalco Ruimin Co., Ltd.," webpage, <https://aluminum-stewardship.org/about-asi/asi-members/chalco-ruimin-co-ltd> (accessed September 8, 2023). In 2021, media reported that Chinalco Ruimin is building a new plant focused on "projects such as lightweight transportation, automobile plate and electronic aluminum." "New development of aluminum foil for lithium-ion battery," *SMM*, November 15, 2014, <https://news.metal.com/newscontent/101665499/new-development-of-aluminum-foil-for-lithium-ion-battery>.

¹⁷⁰ Chalco SWA's member page states that the company operates, "advanced high precision production lines for aluminum sheets, strips and foils, equipped with more than 80 sets equipments such as hot tandem tolling and cold tandem rolling facilities," including for the transportation sector. "ASI Member: Chinalco-SWA Co. Ltd.," webpage, <https://aluminum-stewardship.org/about-asi/members/CHINALCO-SWA-CO--Ltd-> (accessed September 8, 2023).

¹⁷¹ Chalco Henan Luoyang Aluminum operates a casting, rolling, and cold rolling production line. Chalco Aluminum, "About Chalco," webpage, <https://www.chalcoaluminum.com/about/> (accessed September 8, 2023). This includes products, such as aluminum plate/sheet, targeting the automotive sector. Chalco Aluminum, "Aluminum Sheet and Plate," webpage, <https://www.chalcoaluminum.com/product/aluminum-plate/> (accessed September 8, 2023).

¹⁷² Xinjiang Zhonghe, "2022 Semi-Annual Report," September 30, 2022, <http://www.joinworld.com/index.aspx?c=download&from=annex&id=2878&name=%E6%96%B0%E7%96%86%E4%BC%97%E5%92%8C%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B82022%E5%B9%B4%E5%8D%8A%E5%B9%B4%E5%BA%A6%E6%8A%A5%E5%91%8A.pdf>, archived: <https://web.archive.org/web/20240105171908/http://www.joinworld.com/index.aspx?c=download&from=annex&id=2878&name=%E6%96%B0%E7%96%86%E4%BC%97%E5%92%8C%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B82022%E5%B9%B4%E5%8D%8A%E5%B9%B4%E5%BA%A6%E6%8A%A5%E5%91%8A.pdf> (accessed December 19, 2023).

¹⁷³ *Ibid.*

¹⁷⁴ Xinjiang Zhonghe, "2022 Annual Report," April 4, 2023, <http://www.joinworld.com/index.aspx?c=download&from=annex&id=3085&name=%E6%96%B0%E7%96%86%E4%BC%97%E5%92%8C%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B82022%E5%B9%B4%E5%8D%8A%E5%B9%B4%E5%BA%A6%E6%8A%A5%E5%91%8A.pdf>, archived: <https://web.archive.org/web/20240105195145/http://www.joinworld.com/index.aspx?c=download&from=annex&id=3085&name=%E6%96%B0%E7%96%86%E4%BC%97%E5%92%8C%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B82022%E5%B9%B4%E5%8D%8A%E5%B9%B4%E5%BA%A6%E6%8A%A5%E5%91%8A.pdf> (accessed December 19, 2023).

several global brands, including Volkswagen and GM.¹⁷⁵ Chalco Southwest has also said that it supplies SAIC.¹⁷⁶

Aluminum ingots produced in Xinjiang are also bought by commodities traders, companies that buy commodities to sell on to another company. Aluminum ingots are potentially traded between multiple companies before finally being melted down and used to make a product.

Chalco, for example, both smelts its own aluminum outside Xinjiang and operates an expansive trading business that purchases large quantities of aluminum from other producers. Chalco stated in an August 2022 report that, “since late 2009, we have been actively engaged in the trading of alumina and primary aluminum sourced from third-party suppliers,” acknowledging that fluctuations in prices, “may cause the value of the outsourced products in transit or in inventory to decline.”¹⁷⁷ The company said it sold “approximately 5.8 million tons of outsourced primary aluminum in 2021.”¹⁷⁸ Chalco’s own smelters produced 3.86 million tons of aluminum in 2021.¹⁷⁹ Global commodity traders such as Glencore and Trafigura also trade aluminum globally and in China.

Evidence suggests that Chinalco has purchased aluminum from smelters in Xinjiang. In 2020, for example, advisors to Tianshan Aluminum, in a response to the China Securities

¹⁷⁵ Chalco Aluminum, “Top Automotive Aluminum Supplier,” <https://www.chalcoaluminum.com/application/aluminum-automotive/>, archived: <https://archive.is/wip/xRmzu> (accessed November 2023).

¹⁷⁶ “The automobile plate of Southwest Aluminum has been certified by SAIC,” *SMM*, December 24, 2020, <https://news.metal.com/newscontent/101354834/the-automobile-plate-of-southwest-aluminum-has-been-certified-by-saic>, (accessed September 8, 2023).

¹⁷⁷ Aluminum Corporation of China, “Annual Report for Fiscal Year Ended December 31, 2021,” August 31, 2022, https://pdf.dcfw.com/pdf/H2_AN202209011577950500_1.html (accessed December 30, 2023, copy on file with Human Rights Watch), pp. 3, 49. Chalco is a subsidiary of Chinalco, a 100% state-owned company. Chinalco owns 32% of Chalco and is its controlling shareholder. Aluminum Corporation of China, “About Chalco,” <http://www.chalco.com.cn/en/>, archived: <https://web.archive.org/web/20231011104035/https://www.chalco.com.cn/en/> (accessed December 30, 2023).

¹⁷⁸ *Ibid.*

¹⁷⁹ Aluminum Corporation of China, “Annual Report for Fiscal Year Ended December 31, 2021,” p. 31. “In 2021, we produced approximately 16.23 million tons of alumina (excluding chemical alumina products), 4.12 million tons of chemical alumina products and 3.86 million tons of primary aluminum.” See also, “Aluminum Corporation of China’s 2021 net profit increased by 564.60% year-on-year, alumina and electrolytic aluminum production and sales increased year-on-year,” *SMM*, March 23, 2022, <https://news.metal.com/newscontent/101785882/aluminum-corporation-of-chinas-2021-net-profit-increased-by-56460-year-on-year-alumina-and-electrolytic-aluminum-production-and-sales-increased-year-on-year> (accessed December 30, 2023).

Regulatory Commission, stated “Tianshan Aluminum ... sells electrolytic aluminum to Chinalco.”¹⁸⁰ The response to the commission also stated that:

Tianshan Aluminum has signed long-order contracts with large customers in the industry.... [which] lock in the supply of aluminum ingots from Tianshan Aluminum by making advance payment.... Those who sign long-order contracts with Tianshan Aluminum are large customers in the industry, such as Aluminum Corporation of China [Chinalco] [and] Trafigura Investment.... They lock in stable supply of aluminum ingots by making advance payment to Tianshan Aluminum to sign long-order contracts and get certain commercial discounts at the same time.¹⁸¹

In 2019, Shime Pump Industry Group, which merged with Tianshan Aluminum during the company’s July 2020 stock listing, stated in a response to the Shenzhen Stock Exchange that Chalco, a Chinalco subsidiary, as well as Trafigura and Glencore, were “the main customers of Tianshan Aluminum’s own aluminum ingots.”¹⁸² The response also stated that Chalco, Trafigura, and Glencore are “important traders in the industry, to whom Tianshan Aluminum also sells aluminum ingots.”¹⁸³

A May 2019 document prepared by independent financial advisors ahead of Tianshan Aluminum’s merger also named Trafigura and Glencore as among the top five customers of Tianshan Aluminum’s ingots for the years 2016-2018, with Chalco listed in the top five in

¹⁸⁰ Huatai United Securities, “Major Asset Swap and Share Purchase and Connected Transaction of Shime Pump Industry Group Co.,” January 2020, https://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESZ_STOCK/2020/2020-1/2020-01-16/5864827.PDF, archived: https://web.archive.org/save/https://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESZ_STOCK/2020/2020-1/2020-01-16/5864827.PDF (accessed December 30, 2023). Human Rights Watch’s research suggests that Tianshan Aluminum’s only aluminum production is in Xinjiang. Tianshan’s 2020 annual report lists only its Xinjiang operations (Shihezi Development Zone) in describing the company’s aluminum production capacity. Tianshan Aluminum Group, “2020 Annual Report.”

¹⁸¹ Ibid.

¹⁸² Shime Pump Industry Group Co., “Reply to the Shenzhen Stock Exchange’s Letter of Inquiry on the Restructuring of Shime Pump Industry Group,” January 2020, <http://static.cninfo.com.cn/finalpage/2019-05-22/1206288655.PDF>, archived: <https://web.archive.org/web/20230922231846/http://static.cninfo.com.cn/finalpage/2019-05-22/1206288655.PDF> (accessed December 30, 2023). Zhou Meilin, Luo Guoping and Lu Yutong, “Chinese Aluminum Smelter Completes Backdoor Listing in Shenzhen,” *Caixin*, July 14, 2020, <https://www.caixinglobal.com/2020-07-14/chinese-aluminum-smelter-completes-backdoor-listing-in-shenzhen-101579756.html> (accessed December 30, 2023).

¹⁸³ Ibid.

2016.¹⁸⁴ Tianshan Aluminum anonymized the names of its top five customers in its 2020, 2021, and 2022 annual reports.¹⁸⁵

Trafigura, in a December 5, 2022 response to Sheffield Hallam University, stated that, “Trafigura does not purchase products from the Xinjiang region to deliver to international customers, including for the automotive industry.”¹⁸⁶ Human Rights Watch asked Trafigura whether it purchases aluminum or aluminum products from the Xinjiang region to deliver to customers inside China, including to suppliers to the automotive sector. Trafigura did not respond to this question.

Glencore, in a written response to Human Rights Watch, said that it was “unable to disclose the volumes that we purchase of aluminum products from Xinjiang” because, “it is commercially sensitive information.”¹⁸⁷ The company confirmed, however, that, “we purchase aluminum from the Tianshan smelter in the Xinjiang province, which is sold to Chinese domestic customers.”¹⁸⁸ The company further said:

We recognize the risks of forced labor associated with Xinjiang. Our contract has clauses that require Tianshan to comply with our expectations and requirements of our suppliers. We have also conducted due diligence through requesting documents and interviewing employees. This initial due diligence on the Tianshan smelter confirmed the presence of work contracts for all employees, the quality of safety systems in place, and contextual

¹⁸⁴ Huatai United Securities, “Shimge Pump Industry Group Co. Reply to the Shenzhen Stock Exchange's Letter of Inquiry on the Restructuring of Shimge Pump Industry Group,” May 2019, <https://www.shimge.com/out/upload/2019/05/31/15592657834775g7uiy.pdf>, archived: <https://web.archive.org/web/20231220203213/https://www.shimge.com/out/upload/2019/05/31/15592657834775g7uiy.pdf> (accessed December 30, 2023).

¹⁸⁵ Tianshan Aluminum Group, “2020 Annual Report.” Tianshan Aluminum Group, “2021 Annual Report,” April 2022, http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESZ_STOCK/2022/2022-4/2022-04-08/7961755.PDF, archived: https://web.archive.org/web/20231222161303/http://file.finance.sina.com.cn/211.154.219.97:9494/MRGG/CNSESZ_STOCK/2022/2022-4/2022-04-08/7961755.PDF (accessed December 30, 2023). Tianshan Aluminum Group, “2022 Annual Report,” March 2023, https://vip.stock.finance.sina.com.cn/corp/view/vCB_AllBulletinDetail.php?id=8893237, archived: https://web.archive.org/web/20231222155252/https://vip.stock.finance.sina.com.cn/corp/view/vCB_AllBulletinDetail.php?id=8893237 (accessed December 30, 2023).

¹⁸⁶ Laura Murphy et al., “Driving Force,” Annex B, Corporate Responses, <https://www.shu.ac.uk/-/media/home/research/helena-kennedy-centre/projects/driving-force/annex-b----corporate-responses----dec-12.pdf> (accessed December 30, 2023).

¹⁸⁷ Glencore, Written Correspondence with Human Rights Watch, January 8, 2024.

¹⁸⁸ Ibid.

factors such as the high level of skills required to operate the smelter.

Further enhanced due diligence will be conducted in 2024.¹⁸⁹

Glencore also described in detail its responsible sourcing policies, which prohibit suppliers from utilizing forced labor, and acknowledged the challenges associated with risk assessments and auditing in Xinjiang:

The political sensitivities associated with Xinjiang affects our ability to conduct full risk assessments, including third-party audits. We are continuing to assess opportunities for collaboration with other participants in the aluminum supply chain to address the challenges associated with labor practices in the province. However, to date, political sensitivities around this topic continue to make this difficult.¹⁹⁰

The flow of aluminum from Xinjiang into China's wider supply chain, including through commodities traders, creates several pathways through which car manufacturers inside and outside China could be sourcing aluminum from the region, directly or indirectly.

First, carmakers sourcing alloyed or unalloyed ingots for their own casting processes should consider the risk that these ingots contain aluminum produced in Xinjiang. China exports very small amounts of aluminum ingots, the vast majority of which are consumed inside the country, and so the risk of exposure to ingots containing material from Xinjiang is greatest for manufacturers sourcing ingots inside the country.¹⁹¹

Second, carmakers sourcing semi-fabricated products in China, or that originated in China, should address the risk that the products were made using aluminum shipped out of Xinjiang and alloyed or reprocessed at facilities in other parts of China. The majority of

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

¹⁹¹ The US imported only \$8 million of unwrought (both unalloyed and alloyed) aluminum from China in 2022, according to data from the International Trade Administration. International Trade Administration, "US Trade by Product," <https://www.trade.gov/data-visualization/tradestats-express-us-trade-product>, imports under HS Code 7601 (Unwrought aluminum) (accessed December 30, 2023). The EU imported only €22 million worth of unwrought aluminum from China. European Commission, "EU Trade Statistics," <https://trade.ec.europa.eu/access-to-markets/en/statistics>, imports under HS Code 7601 (Unwrought aluminum) (accessed December 30, 2023). See also Andy Home, "Column: China draws in aluminum as domestic output shrinks," *Reuters*, December 22, 2022, <https://www.reuters.com/markets/commodities/china-draws-aluminum-domestic-output-shrinks-2022-12-22/> (accessed December 30, 2023).

semi-fabricated products produced in China are used for manufacturing inside the country, but China also exports millions of tons of semi-fabricated products each year.¹⁹² The US, for example, imported aluminum plate and sheet from China worth \$834 million in 2022.¹⁹³ The EU in 2022 imported aluminum plate and sheet from China worth \$1.28 billion.¹⁹⁴ The relatively few manufacturing steps between aluminum smelting and the production of many semi-fabricated products could reduce the difficulty of identifying the origin of the aluminum in the products, although layers of traders and other intermediaries conceals the origin of aluminum in many semi-fabricated products.¹⁹⁵

Finally, aluminum is also a key component of many specialized parts that carmakers inside and outside China source from industry suppliers, from aluminum alloy wheels to electric vehicle batteries. Sheffield Hallam University, in its 2022 report, documented links between aluminum smelters in Xinjiang and parts manufacturers outside the region that supply the global car industry, both inside and outside China.¹⁹⁶ Car companies inside and outside China sourcing parts containing aluminum should address the risk that the aluminum originated in Xinjiang.

¹⁹² “China’s unwrought aluminum and semis exports fall 15.4% Y-o-Y in 1Q2023; downtrend likely to continue,” *AlCircle*, April 17, 2023, <https://www.alcircle.com/news/chinas-unwrought-aluminum-and-semis-exports-fall-15-4-y-o-y-in-1q2023-downtrend-likely-to-continue-93626> (accessed December 30, 2023).

¹⁹³ International Trade Administration, “US Trade by Product,” <https://www.trade.gov/data-visualization/tradestats-express-us-trade-product>, imports under HS Code 7606 (Aluminum plates, sheets and strip, of a thickness exceeding 0,2 mm) (accessed December 30, 2023).

¹⁹⁴ European Commission, “EU Trade Statistics,” <https://trade.ec.europa.eu/access-to-markets/en/statistics>, imports under HS Code 7606 (Aluminum plates, sheets, and strip, of a thickness exceeding 0,2 mm), (accessed December 30, 2023).

¹⁹⁵ Human Rights Watch correspondence with car company executive, December 19, 2023.

¹⁹⁶ Laura T. Murphy et al., “Driving Force: Automotive Supply Chains and Forced Labor in the Uyghur Region,” pp. 21-28.

III. Car Companies' Human Rights Responsibilities

Car companies have a responsibility under the United Nations Guiding Principles on Business and Human Rights to prevent or mitigate the risk of forced labor and other human rights abuses directly linked to their operations by their business relationships, including through their supply chains.¹⁹⁷ The enactment of human rights due diligence laws, such as Germany's supply chain law and the proposed EU Corporate Sustainability Due Diligence Directive, is fast turning this responsibility into a legal requirement.¹⁹⁸

The UN Guiding Principles require car companies to consider ending their relationships with suppliers or sub-suppliers where they cannot use their leverage to address the supplier's links to human rights abuses.¹⁹⁹ The current level of repression and surveillance in Xinjiang, including threats to workers and auditors, makes it impossible for car companies to work with suppliers in the region to assess working conditions and consider potential remediation.²⁰⁰ At least five international audit firms have said they will no longer conduct audits in Xinjiang.²⁰¹ To avoid the risk of exposure to forced labor, car companies should immediately disengage from any direct supplier in Xinjiang and ensure their

¹⁹⁷ Under the United Nations Guiding Principles on Business and Human Rights, companies have a responsibility to avoid causing or contributing to human rights abuses through their own activities and to prevent or mitigate human rights impacts directly linked to their operations by their business relationships, including through their supply chains. Office of the UN High Commissioner for Human Rights, "UN Guiding Principles on Business and Human Rights, Implementing the United Nations 'Protect, Respect, and Remedy' Framework," 2011, http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf (accessed September 8, 2023), Principle 13(a) and (b), and commentary.

¹⁹⁸ "Germany: New Supply Chain Law a Step in the Right Direction," Human Rights Watch news release, June 11, 2021, <https://www.hrw.org/news/2021/06/11/germany-new-supply-chain-law-step-right-direction>. European Commission, Proposal for a Directive of the European Council and Parliament on Corporate Sustainability Due Diligence, amending Directive (EU) 2019/1937, https://commission.europa.eu/publications/proposal-directive-corporate-sustainability-due-diligence-and-annex_en.

¹⁹⁹ Where a company identifies a supplier linked to human rights abuses, and cannot use its leverage over the supplier to address it, the company should consider ending the relationship with the supplier, taking into account any potentially negative human rights impacts caused by disengagement. UN Guiding Principles on Business and Human Rights, Principle 19.

²⁰⁰ Aruna Kashyap (Human Rights Watch), "Social Audit Reforms and the Labor Rights Ruse," commentary, *Inter Press Service News Agency*, October 7, 2020, <https://www.hrw.org/news/2020/10/07/social-audit-reforms-and-labor-rights-ruse>. "How Mass Surveillance Works in Xinjiang, China: 'Reverse Engineering' Police App Reveals Profiling and Monitoring Strategies," Human Rights Watch interactive report, May 2, 2019, <https://www.hrw.org/video-photos/interactive/2019/05/02/china-how-mass-surveillance-works-xinjiang>. Eva Xiao, "Auditors to Stop Inspecting Factories in China's Xinjiang Despite Forced-Labor Concerns," *Wall Street Journal*, September 21, 2020, <https://www.wsj.com/articles/auditors-say-they-no-longer-will-inspect-labor-conditions-at-xinjiang-factories-11600697706> (accessed December 30, 2023).

²⁰¹ *Ibid.*

suppliers outside the region disengage from any company producing or sourcing parts or materials from the region.²⁰²

The Coalition to End Forced Labor in the Uyghur Region, a coalition of Uyghur groups, trade unions, and nongovernmental organizations, including Human Rights Watch, has said that companies should give suppliers a maximum of a year to end their relationships with companies that produce or source goods from Xinjiang.²⁰³ The Coalition also recommends that companies assist suppliers to identify alternative sources of the product or input linked to Xinjiang.²⁰⁴ Companies should disengage from suppliers that do not agree to take these steps.²⁰⁵

Responsibilities in Joint Ventures

Three of the car companies covered in this report – General Motors, Toyota, and Volkswagen – manufacture their cars in China through joint ventures with Chinese car manufacturers. Companies have a human rights responsibility to use their leverage over a joint venture to ensure it prevents and mitigates the risk of forced labor and other human rights abuses in their supply chains.²⁰⁶ Companies must exercise adequate oversight over their joint ventures to fulfill their responsibilities under the UN Guiding Principles.²⁰⁷

Volkswagen and General Motors, in public statements or in correspondence or meetings with Human Rights Watch, have sought to minimize their responsibility for oversight of

²⁰² The Coalition to End Forced Labor in the Uyghur Region has stated that the pervasive scope of forced labor and other abuses in Xinjiang, as well as the impossibility of doing due diligence, means that “fully extricating” supply chains from Xinjiang is necessary to meet “the corporate responsibility to respect human rights as defined by the UN Guiding Principles on Business and Human Rights and the Organisation for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises. Both the UN Guiding Principles and OECD note businesses should end or disengage from business relationships where prevention or mitigation of harm is not possible by other means.” Coalition to End Forced Labor in the Uyghur Region, “Call to Action: Call to action on human rights abuses in the Xinjiang Uyghur Autonomous Region,” webpage, <https://enduyghurforcedlabour.org/call-to-action/> (accessed September 8, 2023).

²⁰³ Ibid., para. 3(D).

²⁰⁴ Ibid.

²⁰⁵ Ibid., para. 3(E).

²⁰⁶ The Guiding Principles give companies a responsibility to use their leverage to address abuses linked to their operations by business relationships, which includes joint ventures. UN OHCHR, “The Corporate Responsibility to Respect Human Rights: An Interpretive Guide,” 2012, https://www.ohchr.org/sites/default/files/Documents/publications/hr.puB.12.2_en.pdf, p. 5.

²⁰⁷ The UN Office of the High Commissioner for Human Rights underscored in a 2012 report that for “joint ventures with significant human rights risks, it is particularly important to ensure that the legal and other agreements underpinning the ventures provide the necessary basis to ensure that human rights are respected in their operations.” UN OHCHR, “The Corporate Responsibility to Respect Human Rights: An Interpretive Guide,” 2012, p. 22.

their joint ventures' supply chains. Volkswagen told Human Rights Watch that "the company is not legally responsible under Germany's supply chain law for human rights impacts in the joint ventures' supply chain because the law only covers subsidiaries in which companies have 'decisive influence.'"²⁰⁸ GM, in its 2022 annual report, highlighted both the limitations of its oversight of its global joint ventures and related risks:

In joint ventures we share ownership and management of a company with one or more parties who may not have the same goals, strategies, priorities, or resources as we do and may compete with us outside the joint venture.... In addition, because we share ownership and management with one or more parties, we may have limited control over the actions of a joint venture, particularly when we own a minority interest. As a result, we may be unable to prevent violations of applicable laws or other misconduct by a joint venture or the failure to satisfy contractual obligations by one or more parties.²⁰⁹

Volkswagen, in an October 12, 2023 meeting with Human Rights Watch, provided more details on the company's relationship with Chinese joint ventures. General Motors and Toyota did not provide more detailed information to Human Rights Watch about the corporate structure of their Chinese joint ventures.

Volkswagen, which holds 50 percent of the equity of its joint venture with SAIC, told Human Rights Watch that the corporate structure in its original agreement with SAIC gave operational control over the joint venture to SAIC.²¹⁰ Volkswagen stated that, at the time of the agreement, the Chinese government did not allow foreign companies to control joint ventures.²¹¹

Volkswagen said that SAIC's operational control of the joint venture meant that Volkswagen does not have "decisive influence" over the joint venture within the meaning of the German supply chain law. The law requires companies to identify and address risks

²⁰⁸ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

²⁰⁹ General Motors, "2022 Annual Report," <https://investor.gm.com/static-files/12adf215-2927-498e-a958-66345e607b98>, p. 17.

²¹⁰ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

²¹¹ Ibid.

in its “own business area,” which includes any subsidiary in which they have “decisive influence.”²¹² If a company holds “decisive influence” over a subsidiary, it is required to conduct oversight over both the subsidiary’s own business and its direct and indirect suppliers.²¹³

Guidance from Germany’s Federal Ministry of Labor and Social Affairs states that, to determine whether there is decisive influence over a subsidiary, “all relevant aspects are to be considered in an overall view,” and that, “all business, staff, organizational and legal ties between the subsidiary and the parent company must be considered and weighted in context.”²¹⁴ The guidance sets out a range of possible indicators of decisive influence, including a large majority stake in the subsidiary; exerting influence via shareholders’ meetings; a decisive influence on the subsidiary’s supply chain management; and overlapping business areas, such as where the “subsidiary manufactures and exploits the same products or provides the same services as the parent company.”²¹⁵ The guidance also states that the parent company’s influence over the subsidiary must “be possible under the respective applicable laws.”²¹⁶

Notwithstanding Volkswagen’s alleged lack of operational control over SAIC-Volkswagen, Volkswagen’s involvement in the joint venture seems to meet other Federal Ministry of Labor and Social Affairs indicators of decisive influence. There is, for example, significant overlap between the business activities of Volkswagen Group and its Chinese joint venture, with SAIC-Volkswagen manufacturing cars for the Chinese market under the Volkswagen brand.²¹⁷ Volkswagen Group’s website refers to the joint venture as part of the Group’s activities, stating that, “Volkswagen Group China has established 33 plants,” and “has more than 100,000 employees in China, including those of joint ventures.”²¹⁸

²¹² German Act on Corporate Due Diligence Obligations for the Prevention of Human Rights Violations in Supply Chains, Section 2(6), available here: <https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/supply-chain-act.html>.

²¹³ German Federal Ministry of Labor and Social Affairs, “Supply Chain Act – Frequently Asked Questions,” July 24, 2023, <https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/FAQ/faq.html>, accessed December 30, 2023. IV. Affiliated Enterprises, Question 8, part c.

²¹⁴ *Ibid.* IV. Affiliated Enterprises, Question 9,

²¹⁵ *Ibid.*

²¹⁶ *Ibid.*

²¹⁷ Volkswagen Group China, “SAIC VOLKSWAGEN Automotive Co., Ltd.,” Webpage, <https://volkswagengroupchina.com.cn/en/partner/saicvolkswagen> (accessed November 27, 2023).

²¹⁸ Volkswagen, “Volkswagen Group China – Information for the Press,” <https://www.volkswagen-newsroom.com/en/volkswagen-group-china-5897>, accessed October 22, 2023.

Volkswagen reports sales from its Chinese joint venture as part of its annual passenger car deliveries.²¹⁹

SAIC-Volkswagen could also fall within the scope of Volkswagen's obligations under the German supply chain law as a "direct supplier" of Volkswagen's products within the meaning of the law. The law defines a direct supplier as "a partner to a contract for the supply of goods or the provision of services whose supplies are necessary for the production of the enterprise's product or for the provision and use of the relevant service."²²⁰ If SAIC-Volkswagen, by manufacturing cars for Volkswagen in China, meets this definition, companies in the joint venture's supply chain would be Volkswagen's indirect suppliers under the German law.²²¹ The law requires companies to respond to human rights risks involving indirect suppliers where they have "substantiated knowledge" that a supplier may have violated human rights.²²²

Furthermore, even without operational control of joint ventures, carmakers still have a responsibility under the UN Guiding Principles to use the leverage they do have to ensure joint ventures address the risk of forced labor and other human rights abuses in their supply chains.²²³ The German government should clarify that exercising influence over a joint venture, commensurate to the company's leverage and the severity of the rights issues at stake, is part of a company's due diligence obligations under Germany's supply chain. Exercising oversight over a joint venture should be part of a company's actions "in its own business area" within the meaning of the law.²²⁴

²¹⁹ Volkswagen Group, "Group Management Report, Volkswagen Group Deliveries 2022," <https://annualreport2022.volkswagenag.com/group-management-report/business-development/deliveries.html>, accessed October 22, 2023.

²²⁰ German Act on Corporate Due Diligence Obligations for the Prevention of Human Rights Violations in Supply Chains, Section 2(7), available here: <https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/supply-chain-act.html>.

²²¹ Ibid., Section 2(8).

²²² Ibid., Section 9.

²²³ UN OHCHR, "The Corporate Responsibility to Respect Human Rights: An Interpretive Guide," 2012, https://www.ohchr.org/sites/default/files/Documents/publications/hr.puB.12.2_en.pdf, pp. 5, 22.

²²⁴ German Act on Corporate Due Diligence Obligations for the Prevention of Human Rights Violations in Supply Chains, Sections 2(5) and 2(6), available here: <https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/supply-chain-act.html>.

Volkswagen told Human Rights Watch that it “assumes responsibility under the UN Guiding Principles to use its leverage over its Chinese joint ventures to address the risk of human rights abuses.”²²⁵ The company said that it exercises this influence with SAIC.²²⁶

Human Rights Watch asked Volkswagen for more information about how it uses its influence to provide oversight of SAIC-Volkswagen’s sourcing, including the steps Volkswagen is taking to help SAIC-Volkswagen eliminate the risk of forced labor in its aluminum supply chain. Volkswagen declined to answer these questions. Indeed, when asked about its own aluminum sourcing practices, Volkswagen explained that “these measures do not cover Volkswagen’s non-controlled Chinese joint ventures, including the SAIC-Volkswagen joint venture, which is operated by SAIC and so implements its own sourcing strategies.”²²⁷ When asked about SAIC-Volkswagen’s links to a supplier that has sourced aluminum from Xinjiang, Volkswagen stated:

We have no transparency about the supplier relationships of the non-controlled shareholding SAIC-Volkswagen. We therefore ask for your understanding that we do not make any statements about this question.²²⁸

Human Rights Watch also asked Volkswagen whether it had sought to renegotiate its agreement SAIC to require the joint venture to respect Volkswagen’s Group-wide responsible sourcing standards. Volkswagen did not respond to this question. On its website, Volkswagen states that the company and its joint venture partners, “agree that basic values and legal rights must be respected and protected ... Our joint ventures have [their] own Code of Conduct, a whistleblower and an external ombudsmen system to prevent or detect possible wrong doings or violations.”²²⁹

Neither General Motors nor Toyota responded to questions from Human Rights Watch about the control they exercise over their Chinese joint ventures. Human Rights Watch wrote directly to SAIC but did not receive a reply.

²²⁵ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

²²⁶ Ibid.

²²⁷ Ibid.

²²⁸ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

²²⁹ Volkswagen, “ESG Controversies,” <https://www.volkswagen-group.com/en/esg-controversies-15846>, accessed October 22, 2023.

IV. Car Companies Failing to Take Adequate Steps to Eliminate Links to Forced Labor

Most carmakers have responsible sourcing policies that require their companies and their suppliers to eliminate links to forced labor. However, the lack of traceability in the aluminum industry, inadequate efforts by carmakers to map their aluminum supply chains, and the threat of Chinese government reprisals against companies that do investigate links to the XUAR, combine to limit car manufacturers' efforts to tackle forced labor. Carmakers continue to source large quantities of aluminum products without knowing their origin, creating a high risk of exposure to aluminum linked to labor transfers in Xinjiang.

Commitments to Eliminate Forced Labor

Most carmakers have policies in place that both affirm their commitment to eliminating forced labor and that require their suppliers to address forced labor risks in their supply chains. Suppliers are in turn expected to make that requirement applicable to their suppliers and sub-suppliers.

Tesla, for example, has a Global Human Rights Policy, Responsible Sourcing Policy, and Supplier Code of Conduct, which require suppliers to eliminate forced labor from their own operations and to establish their own responsible sourcing policies that meet Tesla's own standards.²³⁰ Tesla told Human Rights Watch that it is "committed to ensuring that our supply chain – from raw materials to final products – is free of such abuses and we will not knowingly accept products or services from suppliers that include forced labor or human trafficking in any form."²³¹

General Motors, Toyota, and Volkswagen similarly have policies prohibiting suppliers from utilizing forced labor and establishing an expectation that suppliers pass on this

²³⁰ Tesla, "Global Human Rights Policy," updated April 2023, https://www.tesla.com/en_eu/legal/additional-resources#global-human-rights-policy (accessed December 30, 2023). Tesla, "Responsible Sourcing Policies," updated April 2023, https://www.tesla.com/en_eu/legal/additional-resources#responsible-sourcing-policies (accessed December 30, 2023). Tesla, "Supplier Code of Conduct," updated July 2021, <https://www.tesla.com/sites/default/files/about/legal/tesla-supplier-code-of-conduct.pdf> (accessed December 30, 2023).

²³¹ Human Rights Watch email correspondence with Tesla, September 29, 2023.

obligation down the supply chain.²³² General Motors told Human Rights Watch that it has “a robust Supplier Code of Conduct that sets clear expectations for our suppliers and contractors to uphold human rights, including the elimination of forced labor.”²³³

Volkswagen has stated that its Code of Conduct for Business Partners requires suppliers to “reject all conscious use of forced and compulsory labor as well as all forms of modern slavery and human trafficking” and that “direct suppliers are expected to pass on these sustainability requirements to their business partners throughout the supply chain.”²³⁴ Neither BYD nor Toyota responded to questions from Human Rights Watch about their responsible sourcing policies.

Limited Supply Chain Mapping and Traceability

Despite commitments to tackling forced labor, car companies lack the necessary knowledge of their aluminum supply chains to eliminate the risk of links to Xinjiang.

Human Rights Watch, in a July 2023 letter, asked BYD, General Motors, Tesla, Toyota, and Volkswagen about their efforts to map their aluminum supply chains to identify potential links to forced labor in Xinjiang. The letter also asked the companies to disclose information on the origin of the aluminum in their vehicles, including the countries where the aluminum was smelted and the company and location of the smelters. For companies with joint venture operations in China, the letter also asked specifically about efforts to map supply chains at Chinese joint ventures.

Tesla provided the most detailed information about its supply chain mapping. In a September 29, 2023 email to Human Rights Watch, Tesla stated that it “has for years taken efforts to understand our role in the aluminum supply chain, including the origin of

²³² General Motors, “Supplier Code of Conduct,” https://www.gmsustainability.com/_pdf/policies/GM_Supplier_Code_of_Conduct.pdf (accessed December 30, 2023). General Motors, “Human Rights Policy,” https://www.gmsustainability.com/_pdf/policies/GM_Global_Human_Rights_Policy.pdf (accessed December 30, 2023). Volkswagen, “Code of Conduct for Business Partners,” <https://www.volkswagen-group.com/en/publications/more/code-of-conduct-for-business-partner-1885>, January 1, 2023 (accessed December 30, 2023). Toyota Supplier Sustainability Guidelines, https://global.toyota/pages/global_toyota/sustainability/esg/supplier_csr_en.pdf, November 2021 (accessed November 2021).

²³³ Human Rights Watch email correspondence with General Motors, September 26, 2023.

²³⁴ Laura Murphy et al., “Driving Force,” Annex B, Corporate Responses, <https://www.shu.ac.uk/-/media/home/research/helena-kennedy-centre/projects/driving-force/annex-b----corporate-responses----dec-12.pdf>.

aluminum materials.”²³⁵ Tesla said that in 2017 it “began to analyze its upstream aluminum supply chain in response to the changing US trade landscape,” and that more recently it “has increased our efforts to include in-depth mapping the upstream tiers of our aluminum supply chain to understand origins of materials, driven in part by global trade regulations to combat forced labor.”²³⁶ The email further said that Tesla’s work on its aluminum supply chain had intensified in 2022, when it said the company “began building a more robust understanding of the companies and locations upstream in our supply chain, to understand their practices and enhance our due diligence of relevant risks.”²³⁷ Tesla said that, “In several cases, Tesla has been able to map its entire supply chain, back to the bauxite mines. In those supply chains, Tesla has not found evidence of forced labor. These efforts continue for both new and existing suppliers.”²³⁸ Tesla’s response to Human Rights Watch suggests that, while it has mapped a proportion of its aluminum supply chain, it has not mapped its full aluminum supply chain for all products.

Human Rights Watch asked Tesla for details of the results of its supply chain mapping, including the origin of the aluminum in its products, but the company said that information on findings, including smelter and primary input suppliers, “cannot be shared.”²³⁹ For some commodities, including cobalt, lithium, and nickel (but not aluminum), Tesla discloses in an annual impact report whether it has mapped its supply chain to the raw material level.²⁴⁰ Human Rights Watch asked Tesla what percentage of its aluminum supply chain the company has mapped to the smelter level, but Tesla did not respond to this question.

Human Rights Watch also discussed supply chain mapping in an October 12 meeting with Volkswagen. Volkswagen described the responsible sourcing measures it has implemented for aluminum for companies in Volkswagen Group but made clear the measures did not cover its non-controlled Chinese joint ventures.²⁴¹

²³⁵ Human Rights Watch email correspondence with Tesla, September 29, 2023.

²³⁶ Ibid.

²³⁷ Ibid.

²³⁸ Ibid.

²³⁹ Tesla Letter to Human Rights Watch, August 24, 2023 (Copy on file with Human Rights Watch).

²⁴⁰ See, for example, Tesla, “Impact Report 2022,” April 2023, <https://www.tesla.com/impact> (accessed December 30, 2023), pp. 167, 171, 174.

²⁴¹ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

For companies in the Volkswagen Group, Volkswagen said that it has prioritized supply chain mapping for certain aluminum parts. The company said that supply chain mapping for aluminum is a challenge because of the sheer number of aluminum suppliers, the number of intermediaries in the supply chain, and the presence of both primary and secondary (recycled) aluminum in many parts. The company also underscored that Volkswagen Group has tens of thousands of suppliers, and many more indirect suppliers beyond that, which it said made it a huge challenge to get transparency over the supply chain.

Volkswagen did not say what percentage of its aluminum supply chain it has successfully mapped to the raw material level but acknowledged that it still has “blind spots” over the origin of the aluminum in its cars. The company also said it is identifying links to forced labor and other potential human rights risks using external software programs that analyze publicly available data to find links between suppliers and uncover more information about the origin of aluminum and other commodities.

General Motors, Toyota, and BYD did not respond to questions about their supply chain mapping or the origin of their aluminum. General Motors instead told Human Rights Watch that “GM is committed to conducting due diligence and working collaboratively with industry partners, stakeholders, and organizations to address any potential risks related to forced labor in our supply chain. We continuously evaluate and enhance our processes to identify and mitigate any adverse human rights impacts.” General Motors’ response did not discuss how it provides oversight of sourcing by its Chinese joint ventures.

Carmakers that fail to adequately map their aluminum supply chains risk masking links to forced labor in Xinjiang and drawing scrutiny from regulators. The US government has said that supply chain mapping is essential to ensure that a company is complying with the import restrictions in the UFLPA.²⁴² US customs officials in 2023 began providing written instructions to companies that have goods containing aluminum detained under the UFLPA, requiring them to provide detailed information on their aluminum supply chain to

²⁴² In June 2022 Guidance to Importers on the UFLPA, the US government stated: “Effective supply-chain tracing is a critical first step of due diligence. Importers must know their suppliers and labor sources at all levels of the supply chain.... The more comprehensively an importer can map its supply chains, the more accurately it can identify those places along the chain with the greatest risks of forced labor.” US Department of Homeland Security, Office of Strategy, Policy, and Plans, “Strategy to Prevent the Implementation of Goods Mined, Produced, or Manufactured with Forced Labor in the People’s Republic of China,” June 17, 2022, https://www.dhs.gov/sites/default/files/2022-06/22_0617_fletf_uflpa-strategy.pdf (accessed September 11, 2023).

demonstrate the goods do not contain aluminum from Xinjiang and are eligible for release.²⁴³

In anonymous interviews with Human Rights Watch, car industry staff and aluminum industry experts underscored that there are significant obstacles to mapping aluminum supply chains, especially in China. They underscored that aluminum has no region-specific physical characteristics that enable ingots to be traced back to the location where raw materials were mined, refined, or smelted. Additionally, aluminum can be traded or sold by multiple companies before arriving at an end user, further obscuring the source of the metal. In some cases where car companies asked their direct suppliers for information about where they source their aluminum, they received incomplete or no information from them. Volkswagen, for example, said that in some cases suppliers refuse to provide information about their supply chains, labeling it “business confidential” and arguing disclosure could compromise the supplier’s competitive advantage.²⁴⁴ An aluminum expert at another car company summarized the challenges in tracing aluminum:

Traceability in the aluminum sector is not straightforward, especially because of intertwined supply chains. With direct relationships it is possible, but through an extended supply chain with multiple market participants and supply chain levels it quickly becomes difficult. Frequently suppliers cannot or do not disclose their entire supply chain or are reluctant to do so. Moreover, suppliers often use multiple sources for aluminum to ensure supply security or compensate for quality differences. In addition, the exact origin is often unknown or intentionally concealed when obtaining material through traders.²⁴⁵

²⁴³ US Customs and Border Protection Agency, “UFLPA Attachment to the Notice of Detention, Addendum: Commodity Specific Supplemental Supply Chain Tracing Information,” July 27, 2023 (Copy on file with Human Rights Watch). The guidance to importers for aluminum products states: “Provide flowchart(s) of all manufacturing steps and distinguish what company performs each step (if more than one company is involved in the production of the aluminum product and finishing coats). Provide certificate(s) of origin or manufacturer’s affidavit attesting to the origin of each material used to produce the aluminum product. Manufacturer’s affidavits should provide the name of the entity and specific location where each material is mined, smelted, and manufactured. Provide raw materials invoices; purchase orders and proof of payment; production records; and export documents and information. Provide details on the manufacturing process where the aluminum was produced into ingots and billets. Provide the location where the aluminum was further manufactured into extrusions, coils, wire, or other aluminum products.”

²⁴⁴ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

²⁴⁵ Note/comment to Human Rights Watch from a staff member at a car company, December 19, 2023.

Aluminum industry leaders said that the industry has begun to acknowledge the importance of strengthening traceability to better track the origin of aluminum. The International Aluminum Institute (IAI) told Human Rights Watch that, “the IAI sees traceability as an area of increasing interest for both producers and users of aluminum (and end-consumers and the public),” which the IAI described as a “positive development.”²⁴⁶

Current aluminum traceability efforts focus on creating a “chain-of-custody” between the raw materials used to produce the metal and the final product, with paper or electronic records documenting the different entities involved at each step of the supply chain.²⁴⁷ These type of traceability schemes, however, currently only cover a portion of the industry and the majority of aluminum products lack the paper trail necessary for tracing or identifying the origin of the aluminum. The IAI said in November 2023 that it could not currently estimate what percentage of global primary aluminum could be traced to the smelter, refinery, and mine of origin, but that it is “likely that a much higher percentage of aluminum supply *could* [IAI’s emphasis] be traced back to the smelter, refinery, and mine than currently is.”²⁴⁸ The IAI said that “a key obstacle [to increased traceability] is the lack of resources or finances to justify/fund the systems and data collection and data transfer that is required to provide full traceability.”²⁴⁹ Aluminum industry experts also told Human Rights Watch that any traceability initiative needs to address the risk of manipulation if records are falsified, for example the risk that companies label aluminum smelted in one location as having been produced elsewhere.

Even as the aluminum industry works to improve traceability, there are immediate steps that carmakers can take to increase their knowledge of their aluminum sourcing. Carmakers should map the aluminum supply chains for as many parts as possible, prioritizing the highest volume and highest risk parts. In assessing whether to prioritize parts for mapping, carmakers should consider factors such as: the mass of aluminum the part contains; the likely country of origin of the aluminum; and the likely length of the

²⁴⁶ Human Rights Watch email correspondence with International Aluminium Institute, November 20, 2023.

²⁴⁷ See, for example, the Chain of Custody Standard developed by the Aluminium Stewardship Initiative. Aluminium Stewardship Initiative, “ASI Chain of Custody Standard,” Version 2.1, April 2023, <https://aluminum-stewardship.org/asi-standards/chain-of-custody-standard> (accessed December 30, 2023).

²⁴⁸ Human Rights Watch email correspondence with International Aluminium Institute, November 20, 2023.

²⁴⁹ *Ibid.*

supply chain, with parts with potentially shorter supply chains, like alloyed ingots for casting and semi-fabricated products like aluminum sheet, a priority for initial mapping. Carmakers should both request information about the origin of aluminum directly from suppliers and then conduct their own research to complement and verify suppliers' data.

Direct Sourcing

Carmakers are increasingly turning to the direct sourcing of raw materials both to secure access to critical supply chain inputs and to gain more insight and control over how mines and refineries are operated. Tesla, in its 2022 Impact Report, notes that, “Direct sourcing from mining and refining companies allows us to engage in environmental and social issues in local contexts – instead of having to rely on companies that typically sit between [electric vehicle] manufacturers and mining. This enables more transparent and traceable supply chain data.”²⁵⁰ Tesla’s Impact Report states that it sources 95 percent of its lithium hydroxide directly, 45 percent of its nickel, and 55 percent of its cobalt.²⁵¹ If necessary, Tesla and other car companies redirect the minerals they source directly to suppliers further down the supply chain (for example, by redirecting lithium hydroxide to cathode manufacturers), which then use the mineral to make components for Tesla.²⁵² Human Rights Watch asked Tesla how much aluminum the company sources directly from aluminum smelters but did not receive a response.

The sheer volume of aluminum parts sourced by automakers and the number of suppliers producing them make the direct sourcing of aluminum more complicated than for battery materials. Some car companies, however, have begun to develop direct relationships with aluminum producers, or to work with their first-tier suppliers to jointly develop direct sourcing relationships with aluminum producers.

Mercedes announced in December 2022 that Norwegian aluminum producer Norsk Hydro would supply “low carbon” aluminum for its vehicles, including its electric vehicle fleet, from 2023.²⁵³ Mercedes also announced in October 2023 that the carmaker, including its

²⁵⁰ Tesla, “Impact Report 2022,” pp. 153.

²⁵¹ Ibid.

²⁵² Human Rights Watch interview with battery metal expert, July 27, 2022.

²⁵³ “Hydro partners with Mercedes-Benz on road to CO₂ neutrality,” Norsk Hydro press release, December 15, 2022, <https://www.hydro.com/en/media/news/2022/hydro-partners-with-mercedes-benz-on-road-to-co2-neutrality/> (accessed

Chinese joint ventures, would source low carbon aluminum directly from Yunnan Aluminum, a Chinalco subsidiary that produces aluminum through hydropower electricity in Yunnan province.²⁵⁴ Mercedes told Human Rights Watch that the agreement with Yunnan was agreed “for reasons of carbon neutrality” and aims to “jointly build a low-carbon aluminum supply chain in China.”²⁵⁵ The company also said that Yunnan Aluminum had “declared to comply with Mercedes-Benz Group’s Responsible Sourcing Standards (RSS),” and that based on these standards, “the supplier will be obliged to particularly identify critical ‘nodes’ (such as mines, smelters, and refineries) and provide information about them.”²⁵⁶ Mercedes also said that the “MoU has been signed and now teams are at the preliminary phase of understanding the implications and further steps needed to implement it operationally in the supply chain.”²⁵⁷

BMW announced in February 2022 that Rio Tinto would supply the company’s South Carolina production plant with aluminum produced by hydroelectric power.²⁵⁸ BMW Brilliance, BMW’s Chinese joint venture announced on December 4, 2023 that it had signed agreements with Henan Shenhua Group to obtain “green electrolytic aluminum that meets BMW’s quality standards and is manufactured using low-carbon renewable energy.”²⁵⁹ Henan Shenhua, in addition to operating hydro powered aluminum smelters in Yunnan, produces a large percentage of its aluminum in Xinjiang through coal power.²⁶⁰ Human Rights Watch asked BMW how they would ensure that the aluminum supplied by

December 30, 2023). Norsk Hydro has faced criticism for the human rights and environmental impacts of its alumina refining and bauxite mining operations in Brazil’s Amazon rainforest. Sheridan Prasso, “Ford’s Electric Pickup Is Built From Metal That’s Damaging the Amazon,” *Bloomberg*, February 26, 2023, <https://www.bloomberg.com/graphics/2023-ford-f150-electric-car-rainforest-damage/> (accessed December 30, 2023).

²⁵⁴ “云铝头条】云南铝业股份有限公司与梅赛德斯-奔驰（中国）投资有限公司签署“中国低...” [Yunnan Aluminum Headlines] Yunnan Aluminum Co., Ltd. and Mercedes-Benz (China) Investment Co., Ltd. signed the “China Low...”, Sohu, October 19, 2023, https://www.sohu.com/a/729653149_121613636, archived: https://web.archive.org/save/https://www.sohu.com/a/729653149_121613636 (accessed November 2023).

²⁵⁵ Mercedes emails to Human Rights Watch, December 8 and 13, 2023.

²⁵⁶ Ibid.

²⁵⁷ Ibid.

²⁵⁸ Stephen Culp, “Rio Tinto enters agreement with BMW to provide hydro-produced aluminum,” *Reuters*, February 2021, 2023, <https://www.reuters.com/markets/commodities/rio-tinto-enters-agreement-with-bmw-provide-hydro-produced-aluminum-2023-02-21/> (accessed December 30, 2023).

²⁵⁹ “Brilliance BMW inks MoU with Henan Shenhua and Shuaiyichi Group for green aluminium feedstock,” *ALCircle*, December 4, 2023, <https://www.alcircle.com/news/brilliance-bmw-inks-mou-with-henan-shenhua-and-shuaiyichi-group-for-green-aluminium-feedstock-103162> (accessed December 2023).

²⁶⁰ Henan Shenhua’s 2020 Annual Report stated, “As of December 31, 2020, the company’s electrolytic aluminum production capacity is 1.7 million tons/year (Xinjiang coal power is 800,000 tons/year, currently in normal production; Yunnan Shenhua is 900,000 tons/year. Currently 750,000 tons have been put into production).” Henan Shenhua, “2020 Annual report.”

Henan Shenhua Group would be free from forced labor. BMW, which owns 75 percent of BMW Brilliance,²⁶¹ told Human Rights Watch that, “the MOU between BMW Brilliance, CSMET (first tier supplier), and Henan Shenhua (second tier supplier) has the aim to reserve capacity for green aluminum and aluminum alloy with a certain secondary quota for the BBA supply chain.”²⁶² BMW said that the company “had not yet had any reason to comply with our corporate due diligence obligation with our second-tier supplier Henan Shenhua in Yunnan.”²⁶³

For indirect suppliers like Henan Shenhua, Germany’s supply chain law requires companies to respond to human rights risks where they have “substantiated knowledge” that a supplier may have violated human rights.²⁶⁴ Guidance from Germany’s Federal Ministry of Labor and Social Affairs states that “substantiated knowledge” of human rights violations at an indirect supplier could come from “media reports, reports by NGOs and notifications on the internet if they are common knowledge because they are known industry-wide or are passed on to the enterprise.”²⁶⁵ Sheffield Hallam University and NomoGaia, in their 2022 report, described Henan Shenhua Group’s links to labor transfers in Xinjiang.²⁶⁶

Concerns about Government Retaliation

In interviews with Human Rights Watch, car company staff and responsible sourcing experts, who did not want to be identified, said that a key obstacle to working with suppliers in China to map supply chains and eliminate links to Xinjiang was a fear that it could result in retaliation from the Chinese government against the car company, the supplier, or its staff.

²⁶¹ BMW, “BMW AG acquires majority stake in BMW Brilliance Automotive Ltd. leading to full consolidation effective 11 February 2022,” Press Release, February 2, 2022, <https://www.press.bmwgroup.com/global/article/detail/To367989EN/ad-hoc:-bmw-ag-acquires-majority-stake-in-bmw-brilliance-automotive-ltd-leading-to-full-consolidation-effective-11-february-2022?language=en/> (accessed October 2023).

²⁶² Human Rights Watch correspondence with BMW Group, December 21, 2023.

²⁶³ Ibid.

²⁶⁴ German Act on Corporate Due Diligence Obligations for the Prevention of Human Rights Violations in Supply Chains, Section 2(7), available here: <https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/supply-chain-act.html>, Section 9.

²⁶⁵ German Federal Ministry of Labor and Social Affairs, “Supply Chain Act – Frequently Asked Questions,” July 24, 2023, <https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/FAQ/faq.html>, accessed December 30, 2023. VI. The basics of complying with due diligence obligations, Question 14.

²⁶⁶ Laura T. Murphy et al., “Driving Force: Automotive Supply Chains and Forced Labor in the Uyghur Region,” p. 24.

The Chinese government has initiated criminal investigations targeting companies or individuals that assist businesses to investigate their potential links to human rights abuses in China, including forced labor in Xinjiang.²⁶⁷ In March 2023, for example, Chinese police closed the office of the consulting firm Mintz and detained five of its Chinese staff for questioning.²⁶⁸ Media reported that Mintz had conducted corporate due diligence work related to forced labor and supply chains in Xinjiang.²⁶⁹ In April 2023, a state news report stated that national security officials had penalized a Chinese national under counter-espionage laws for assisting a nongovernmental organization in labor rights investigations related to Xinjiang.²⁷⁰ Executives at other consulting firms told reporters in May 2023 that the government has warned them against conducting due diligence work related to Xinjiang.²⁷¹

The Chinese government in April 2023 also passed an expanded counter-espionage law that experts have warned could increase the government's power to investigate and prosecute foreign firms conducting research on local markets and business partners. In 2021, the Chinese government also passed several anti-sanctions laws that could put companies with assets and personnel inside China at risk of sanction from Chinese regulators – or subject to civil liability – for taking actions to implement foreign laws such as the UFLPA.²⁷²

²⁶⁷ Akin Gump, Coalition to End Forced Labor in the Uyghur Region, "The New PRC Anti-Foreign Sanctions Law," July 2, 2021, <https://www.akingump.com/en/insights/alerts/the-new-prc-anti-foreign-sanctions-law> (accessed December 30, 2023).

²⁶⁸ Michael Martina and Yew Lun Tian, "China detains staff, raids office of US due diligence firm Mintz Group," *Reuters*, March 24, 2023, <https://www.reuters.com/world/us-due-diligence-firm-mintz-groups-beijing-office-raided-five-staff-detained-2023-03-24/> (accessed December 30, 2023).

²⁶⁹ James Pomfret and Engen Tham, "Exclusive: US consultancy Mintz's executives leave Hong Kong after China raid," May 19, 2023 (accessed September 11, 2023), <https://www.reuters.com/world/china/us-consultancy-mintzs-executives-leave-hong-kong-after-china-raid-sources-2023-05-19/>.

²⁷⁰ "国家安全机关公布一批危害国家安全典型案例" [The national security agency announced a number of typical cases endangering national security], April 15, 2023, <https://hb.ifeng.com/c/8OyyfTTmZlt>, archived here: <https://archive.ph/YbUsG> (accessed September 11, 2023). See also, Daisuke Wakabayashi, Chris Buckley and Keith Bradsher, "Even as China Reopens, Security Visits Spook Foreign Businesses," *New York Times*, May 4, 2023 (accessed September 11, 2023), <https://www.nytimes.com/2023/05/04/business/china-foreign-business-security.html?action=click&module=Well&pgtype=Homepage§ion=Business>.

²⁷¹ James Pomfret and Engen Tham, "Exclusive: US consultancy Mintz's executives leave Hong Kong after China raid," May 19, 2023, <https://www.reuters.com/world/china/us-consultancy-mintzs-executives-leave-hong-kong-after-china-raid-sources-2023-05-19/> (accessed September 11, 2023).

²⁷² Chun Han Wong, "China Spy Law Adds to Chilling Effect of Detentions," *Wall Street Journal*, updated April 27, 2023 (accessed September 11, 2023), https://www.wsj.com/articles/chinas-expanded-spy-law-adds-to-chilling-effect-of-detentions-ce8cea1a?mod=article_inline. Morgan Lewis, "China's New 'Anti-Espionage Law' Raises Complex Compliance Issues for Multinational Corporations," report, May 2023, <https://www.lexology.com/library/detail.aspx?g=3f260996-2546-411f-8f2a-ae96a6f9e8c5> (accessed September 11, 2023).

Car industry staff and responsible sourcing experts said that companies were worried that staff and suppliers could face sanctions, including criminal prosecution under the new laws, were they to discuss or take actions related to forced labor in Xinjiang. They also flagged the risk that, were their efforts related to Xinjiang to become public, their business might be boycotted by Chinese consumers. In 2021, the decision by clothing company H&M to stop using cotton from Xinjiang led to its removal from Chinese online retail platforms as well as attacks on social media.²⁷³

The risk of retaliation by the Chinese government, however, does not mean carmakers can ignore the risk that they are sourcing aluminum linked to forced labor. Several experts said there were ways to work with Chinese suppliers to increase supply chain transparency and tackle links to Xinjiang while minimizing the risk of government retaliation. Experts said, for example, that car companies can ask business partners to disclose their supply chains without referencing Xinjiang explicitly, such as by requesting information on suppliers for commercial reasons or by using neutral terms such as the need to comply with international regulations. Car companies' contracts with suppliers should include pre-agreed supply chain transparency requirements, eliminating the need for ad hoc requests for data on suppliers and sub-suppliers. Another expert noted that the need to tackle smelter-level greenhouse gas emissions provides ample justification for car companies to request information from suppliers on the origin of aluminum. The reliance of Xinjiang's smelters on coal means that requiring suppliers to supply products made with low-carbon aluminum is a potential method for excluding material from Xinjiang.

SAIC-Volkswagen Xinjiang Plant

A SAIC-Volkswagen subsidiary, SAIC Volkswagen (Xinjiang) Automotive, operates a plant in Ürümqi, Xinjiang's capital. The plant was established in 2012 and began operations in 2013.²⁷⁴ A German media article in 2013, titled "The riskiest location in the VW empire,"

²⁷³ "H&M: Fashion giant sees China sales slump after Xinjiang boycott," *BBC*, July 2, 2021 (accessed September 11, 2023), <https://www.bbc.com/news/business-57691415>. "China Canceled H&M. Every Other Brand Needs to Understand Why," *Bloomberg News*, March 14, 2022 (accessed September 11, 2023), <https://www.bloomberg.com/graphics/2022-china-canceled-hm/>.

²⁷⁴ Volkswagen, "SAIC Volkswagen Joint Venture vehicle plant in Urumqi Facts, figures & data (status as of Nov 2023)," December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/saic-volkswagen-joint-venture-vehicle-plant-in-urumqi-facts-figures-data-status-as-of-nov-2023-2571> (accessed December 30, 2023). Volkswagen Group China, "SAIC Volkswagen and Plants," <https://volkswagengroupchina.com.cn/en/volkswagengroupchina/plant1> (accessed October 22, 2023).

argued that construction of the plant in Xinjiang was a concession to the Chinese government that helped SAIC-Volkswagen open larger plants elsewhere in China.²⁷⁵ Volkswagen told Human Rights Watch in October 2023 that the establishment of the plant in 2022 was a “business decision” that reflected the conditions in Xinjiang at the time.²⁷⁶

Human Rights Watch’s 2013 World Report, which covered the events of 2012 in Xinjiang, stated that, “Under the guise of counterterrorism and ‘anti-separatism’ efforts, the government maintains a pervasive system of ethnic discrimination against Uyghurs and other ethnic minorities,” and that, “a pervasive atmosphere of fear among the Uyghur population contributes to growing ethnic polarization. Factors contributing to this bleak atmosphere include the omnipresence of the secret police, the recent history of disappearances, and an overtly politicized judiciary.”²⁷⁷ Human Rights Watch asked Volkswagen whether it undertook any form of human rights assessment prior to opening the Xinjiang plant. Volkswagen did not respond to this question.

SAIC-Volkswagen originally intended the Xinjiang plant as a “completely knocked down assembly (CKD)” factory, a car industry term that refers to the assembly of vehicles from parts produced elsewhere.²⁷⁸ CKD factories are used by the car industry where it is not economically viable to build a factory in a given location or to avoid import duties or benefit from government financial incentives intended to promote manufacturing in a given region.²⁷⁹ Volkswagen told Human Rights Watch that the CKD model didn’t prove viable at the Xinjiang plant, and that SAIC-Volkswagen cars were now transported fully assembled to Xinjiang, where they are road tested at the Xinjiang plant before being sold in the region.²⁸⁰ A Volkswagen board member who visited the factory in February 2023

²⁷⁵ Philipp Mattheis, “Der riskanteste Standort im VW-Imperium [The riskiest location in the VW empire],” *WirtschaftsWoche*, November 22, 2013, <https://www.wiwo.de/unternehmen/auto/werk-in-xinjiang-der-riskanteste-standort-im-vw-imperium/9079890.html> (accessed October 2023).

²⁷⁶ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

²⁷⁷ Human Rights Watch, “World Report 2013,” https://www.hrw.org/sites/default/files/wr2013_web.pdf, p. 310.

²⁷⁸ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023. Christoph Giesen, “Nichts ist gut [Nothing is good],” *Süddeutsche Zeitung*, October 27, 2017, <https://www.sueddeutsche.de/wirtschaft/report-nichts-ist-gut-1.3727046> (accessed October 2023).

²⁷⁹ BMT, “CKD (Cars Knocked Down),” *Cargo Handbook*, [https://www.cargohandbook.com/CKD_\(Cars_Knocked_Down\)](https://www.cargohandbook.com/CKD_(Cars_Knocked_Down)) (accessed October 2023). CarBikeTech, “CBU, CKD, SKD: What are these Manufacturing Processes?,” CarBikeTech, September 26, 2018, <https://carbiketech.com/automotive-manufacturing-cbu-ckd-skd/> (accessed October 2023). See also Volkswagen Group, “Beetles in boxes: 70 years of CKD car exports by Volkswagen,” December 17, 2020, <https://www.volkswagen-newsroom.com/en/press-releases/beetles-in-boxes-70-years-of-ckd-car-exports-by-volkswagen-6726> (accessed October 2020).

²⁸⁰ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

stated that “up to 10,000 vehicles” are “technically commissioned” there, before being delivered to dealers in the region.²⁸¹ Volkswagen confirmed in December 2023 that “the plant now merely functions as a distribution hub. Vehicles are being delivered complete, and merely undergo a quality check and the initial start-up at the plant before being delivered for sale. All production and assembly facilities as well as the paint shop are shut down.”²⁸²

Volkswagen said that it gave its consent to SAIC to operate a Xinjiang-based subsidiary for a fixed period of 18 years and that “it is legally impossible to rescind its consent to SAIC to establish the Xinjiang operation.”²⁸³ Volkswagen said in December 2023 that the “contract term” for the plant with SAIC runs until 2029.²⁸⁴

Uyghur human rights groups have expressed concern that the SAIC-Volkswagen plant in Xinjiang could both be a site for forced labor itself and could be sourcing parts or materials produced with forced labor.²⁸⁵ Volkswagen has said, however, that the plant’s reliance on production outside Xinjiang means it is not directly sourcing parts from the region. The board member that visited the site in February 2023 stated that “the SAIC Volkswagen plant doesn’t source from suppliers in the region [and] there are currently no plans to resume vehicle production.”²⁸⁶ Uyghur rights groups have also underscored that SAIC-

²⁸¹ Volkswagen Group, “Statement on visit to SAIC Volkswagen (Xinjiang) Automotive,” March 8, 2023, <https://www.volkswagen-group.com/en/publications/more/statement-on-visit-to-saic-volkswagen-xinjiang-automotive-statement-08-03-2023-1681/download?disposition=attachment> (accessed November 27, 2023). See also Volkswagen, “SAIC Volkswagen Joint Venture vehicle plant in Urumqi Facts, figures & data (status as of Nov 2023),” December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/saic-volkswagen-joint-venture-vehicle-plant-in-urumqi-facts-figures-data-status-as-of-nov-2023-2571> (accessed December 30, 2023).

²⁸² Volkswagen, “Management Summary on the ESG-Audit of SAIC-Volkswagen (Xinjiang) Automotive Company Limited,” December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/management-summary-on-the-esg-audit-of-saic-volkswagen-xinjiang-automotive-company-limited-2573> (accessed December 30, 2023).

²⁸³ Ibid.

²⁸⁴ Volkswagen, “SAIC Volkswagen Joint Venture vehicle plant in Urumqi Facts, figures & data (status as of Nov 2023),” December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/saic-volkswagen-joint-venture-vehicle-plant-in-urumqi-facts-figures-data-status-as-of-nov-2023-2571> (accessed December 30, 2023).

²⁸⁵ World Uyghur Congress, “VW Board Member in East Turkistan, WUC and GFBV Strongly Criticize Circumstances of Visit,” Press Release, February 28, 2023, <https://www.uyghurcongress.org/en/vw-board-member-in-xinjiang-east-turkistan/> (accessed October 2023).

²⁸⁶ Volkswagen Group, “Statement on visit to SAIC Volkswagen (Xinjiang) Automotive,” March 8, 2023, <https://www.volkswagen-group.com/en/publications/more/statement-on-visit-to-saic-volkswagen-xinjiang-automotive-statement-08-03-2023-1681/download?disposition=attachment> (accessed November 27, 2023).

Volkswagen's factories outside Xinjiang might still be sourcing raw materials, including aluminum, from the region.²⁸⁷

As regards the risk of forced labor at the factory itself, Volkswagen stated in a December 2023 press release that the plant has 197 employees, with 23.9 percent belonging to ethnic minorities, including Uyghurs.²⁸⁸ Volkswagen also stated that, "All employees have an employment contract with the joint venture (no agency contracts) and have been employed at the plant for more than 4 years; 76% thereof between 8-10 years."

In response to scrutiny over the risk of forced labor at the Xinjiang plant, Volkswagen announced on June 21, 2023, that it would conduct an audit of labor conditions at the Urumqi plant.²⁸⁹ On July 11, 2023, Kritische Aktionäre, a responsible investor group, wrote to Volkswagen to ask questions about the audit and to express "reasonable doubts as to whether an external audit can now be an effective and sufficient measure in this specific case."²⁹⁰ The letter expressed concern that: "No worker can speak openly to factory investigators about forced labor or other human rights issues without putting him/herself and his/her family at risk of brutal retaliation."²⁹¹ Volkswagen, in responding to Kritische Aktionäre's letter, stated that it is "convinced that an audit by an independent auditing company can provide important information on the human rights situation at the Urumqi plant."²⁹²

²⁸⁷ Kritische Aktionäre, World Uyghur Congress, "Questions to Volkswagen following Publication of Audit Results," December 19, 2023, <https://www.uyghurcongress.org/en/questions-to-volkswagen-following-publication-of-audit-results/> (accessed December 30, 2023).

²⁸⁸ Volkswagen, "SAIC Volkswagen Joint Venture vehicle plant in Urumqi Facts, figures & data (status as of Nov 2023)," December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/saic-volkswagen-joint-venture-vehicle-plant-in-urumqi-facts-figures-data-status-as-of-nov-2023-2571> (accessed December 30, 2023).

²⁸⁹ Victoria Waldersee, "VW investors question how Xinjiang plant audit will be run," *Reuters*, June 22, 2023, <https://www.reuters.com/business/autos-transportation/vw-investors-question-how-xinjiang-plant-audit-will-be-run-2023-06-22/> (accessed December 30, 2023).

²⁹⁰ Association of Ethical Shareholders, Germany, "Open letter to Volkswagen with questions about the announced audit of the Volkswagen SAIC plant in Urumchi, China," July 11, 2023, <https://www.kritischeaktionaeere.de/en/volkswagen-en/open-letter-to-volkswagen-with-questions-about-the-announced-audit-of-the-volkswagen-saic-plant-in-urumchi-china/> (accessed December 30, 2023).

²⁹¹ Ibid.

²⁹² "Antwort von Volkswagen zu Audit-Plänen in China," [Response from Volkswagen on audit plans in China], Business and Human Rights Resource Centre, July 18, 2023, <https://www.business-humanrights.org/de/neuste-meldungen/antwort-von-volkswagen-zu-audit-pl%C3%A4nen-in-china/> (accessed September 11, 2023, translation on file with Human Rights Watch).



A plant operated by a subsidiary of SAIC-Volkswagen on the outskirts of Urumqi, the capital of China's Xinjiang Uyghur Autonomous Region, on April 22, 2021. © 2021 AP Photo/Mark Schiefelbein

Volkswagen released a summary of the results of the audit, but not the audit report, on December 5, 2023.²⁹³ The audit found “no indications of any use of forced labor or forced laborers among the employees at the plant of the audited legal entity.”²⁹⁴ The audit was overseen by Markus Löning, Germany's former Commissioner for Human Rights, with the actual audit conducted by a Shenzhen law firm.²⁹⁵

In describing the audit’s methodology, Volkswagen stated that it “encompassed document checks on site in Urumqi as well as interviews with staff and management employees of the audited legal entity. Several site inspections, including walkabouts of the outdoor premises of the plant, were also part of the auditing process.”²⁹⁶ Löning himself said that the auditors “checked the employment contracts and salary payments of all 197

²⁹³ Volkswagen, “Management Summary on the ESG-Audit of SAIC-Volkswagen (Xinjiang) Automotive Company Limited,” December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/management-summary-on-the-esg-audit-of-saic-volkswagen-xinjiang-automotive-company-limited-2573> (accessed December 30, 2023).

²⁹⁴ Ibid.

²⁹⁵ Ibid.

²⁹⁶ Ibid.

employees over the last three years, conducted 40 interviews and were able to freely inspect the factory. The data collected was compared for consistency and plausibility ('triangulated')."²⁹⁷

After the audit was released, Kritische Aktionäre, the responsible investor group, the World Uyghur Congress, and other nongovernmental organizations wrote to Volkswagen to express concerns about the credibility of audits in Xinjiang, including the risks to interviewees.²⁹⁸ Löning's consulting firm also released a statement that media reports described as distancing the firm's senior staff, other than Löning, from the Xinjiang audit.²⁹⁹ The firm's statement said that "The human rights situation in China and Xinjiang and the challenges in collecting meaningful data for audits are well known and are also present in this project."³⁰⁰ The statement continued: "No other team member from Löning participated in, supported or backed this project. Our team has diligently worked to establish ourselves as reputable and knowledgeable experts in business and human rights. We remain committed to being guided by international human rights standards in our work."³⁰¹

At the time of the audit release, Löning had stated that "audits in China, due to recent legislative changes, are subject to challenges with regards to data retention and data transfer" but that "adequate documentation has been obtained for this Audit."³⁰² Löning subsequently told the Financial Times that the main basis for the audit had been a review

²⁹⁷ Markus Löning, "Written Statement on Release of Audit Report," December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/quotes-markus-loning-founder-and-managing-director-of-loning-human-rights-responsible-business-gmbh-2574> (accessed December 30, 2023).

²⁹⁸ Kritische Aktionäre, World Uyghur Congress, "Questions to Volkswagen following Publication of Audit Results," December 19, 2023, <https://www.uyghurcongress.org/en/questions-to-volkswagen-following-publication-of-audit-results/> (accessed December 30, 2023).

²⁹⁹ Victoria Waldersee, "Senior staff at auditing firm distance themselves from audit of VW's China plant," *Reuters*, December 13, 2023, <https://www.reuters.com/business/autos-transportation/auditing-firm-distances-itself-duos-work-vws-china-plant-2023-12-13/> (accessed January 19, 2023). Patricia Nilsson, "Staff rebel at consultancy behind VW review of Xinjiang rights abuse," *Financial Times*, December 13, 2023, <https://www.ft.com/content/46b37a15-054e-4d40-b42b-f31a0e3a07c3> (accessed December 16, 2023).

³⁰⁰ Löning – Human Rights & Responsible Business GmbH, "Statement on the Volkswagen Audit at the Xinjiang Site," December 2023, https://www.linkedin.com/posts/loening_statement-on-the-volkswagen-audit-at-the-activity-7138492238422073344-2wDZ/ (accessed December 30, 2023).

³⁰¹ Ibid.

³⁰² Volkswagen, "Management Summary on the ESG-Audit of SAIC-Volkswagen (Xinjiang) Automotive Company Limited," December 5, 2023, <https://www.volkswagen-group.com/en/publications/more/management-summary-on-the-esg-audit-of-saic-volkswagen-xinjiang-automotive-company-limited-2573> (accessed December 30, 2023).

of documentation rather than interviews, which he said could be “dangerous.”³⁰³ The article quoted Löning as saying, “even if they [workers] would be aware of something, they cannot say that in an interview.”³⁰⁴

Human Rights Watch asked Volkswagen about the concern that independent and safe audits in Xinjiang are not possible due to government surveillance and threats to workers and auditors. Volkswagen did not respond to this question. Volkswagen told Human Rights Watch that the Xinjiang factory is outside the scope of the German supply chain law as, “SAIC Volkswagen (Xinjiang) Automotive Co. is neither a supplier nor does the German Supply Chain Due Diligence Act apply to it for other reasons.”³⁰⁵

Use of Flawed Certification Schemes

Two of the car companies examined in this report, Volkswagen and Tesla, use an aluminum-specific certification scheme, the Aluminium Stewardship Initiative (ASI), as a tool to assess their suppliers’ respect for human rights and environmental standards, including suppliers’ efforts to address forced labor risks.³⁰⁶ Mercedes and BMW are also members of ASI.

ASI is one example of the numerous voluntary certification and audits initiatives that have emerged in response to the increased focus on human rights and environmental risks in mineral supply chains.³⁰⁷ Initiatives like ASI rely on third-party auditors to assess companies or facilities against a standard developed by the initiative.³⁰⁸ Mines, refineries, and smelters frequently refer to certifications as evidence of their responsible business conduct.³⁰⁹ Research by Human Rights Watch and others, however, has shown that third-party audits have inherent limitations and that voluntary initiatives frequently lack the

³⁰³ Patricia Nilsson, “Staff rebel at consultancy behind VW review of Xinjiang rights abuse,” *Financial Times*, December 13, 2023, <https://www.ft.com/content/46b37a15-054e-4d40-b42b-f31a0e3a07c3> (accessed December 30, 2023).

³⁰⁴ *Ibid.*

³⁰⁵ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

³⁰⁶ Aluminium Stewardship Initiative, “Vision, Mission and Values,” webpage, last accessed December 30, 2023, <https://aluminum-stewardship.org/about-asi/vision-mission-values>.

³⁰⁷ Human Rights Watch, “EU’s Flawed Reliance on Audits, Certifications for Raw Materials Rules: Questions and Answers,” May 24, 2023, <https://www.hrw.org/news/2023/05/24/eus-flawed-reliance-audits-certifications-raw-materials-rules>.

³⁰⁸ *Ibid.*

³⁰⁹ *Ibid.*

detailed criteria and rigorous methodology needed to evaluate companies' compliance with human rights or environmental standards.³¹⁰

ASI has developed a Performance Standard, which includes social, human rights, and environmental criteria, against which any actor in the aluminum supply chain can seek certification through a third-party audit.³¹¹ ASI also has a "Chain of Custody" standard that companies can use to create a paper trail showing that an end-use aluminum product has been produced by mines, refineries, smelters, and manufacturers that all respect ASI's Performance Standard.³¹² Chain-of-Custody-certified aluminum is designated "ASI Aluminum."³¹³

Car companies are using ASI's standards in two different ways. First, some carmakers are requiring direct suppliers to provide "ASI Aluminum" that has been made by mines, refineries, smelters, and other facilities all certified against ASI's standards. Volkswagen's 2022 Raw Materials Report, for example, which lists "modern slavery" as a risk area for aluminum, stated that Volkswagen will "continue to promote ASI certification in our supply chain, and work to increase demand for ASI-certified material."³¹⁴ The report stated that "delivery of ASI-certified material will become a mandatory sourcing requirement for all automotive body sheets in the Volkswagen Group in 2023" and that, to comply with this requirement, "suppliers ... will be required to obtain ASI certification and deliver ASI-certified material."³¹⁵ In an October 2023 meeting with Human Rights Watch, Volkswagen told Human Rights Watch that it was using ASI's standards to address forced labor and other risks in its supply chain and was working towards sourcing only "ASI Aluminum."³¹⁶

³¹⁰ Ibid. Human Rights Watch, "'Obsessed with Audit Tools, Missing the Goal' Why Social Audits Can't Fix Labor Rights Abuses in Global Supply Chains," November 15, 2022, <https://www.hrw.org/report/2022/11/15/obsessed-audit-tools-missing-goal/why-social-audits-cant-fix-labor-rights-abuses> (accessed September 12, 2023). See also GermanWatch, "An Examination of Industry Standards in the Raw Materials Sector," September 5, 2022, https://www.germanwatch.org/sites/default/files/germanwatch_an_examination_of_industry_standards_in_the_raw_materials_sector_2022-09.pdf (accessed September 12, 2023).

³¹¹ Aluminium Stewardship Initiative, "ASI Performance Standard," Version 3.1, April 2023, <https://aluminum-stewardship.org/asi-standards/performance-standard> (accessed December 30, 2023).

³¹² Aluminium Stewardship Initiative, "ASI Chain of Custody Standard," Version 2.1, April 2023, <https://aluminum-stewardship.org/asi-standards/chain-of-custody-standard> (accessed December 30, 2023).

³¹³ Aluminium Stewardship Initiative, "What is ASI Aluminum?," webpage, last accessed December 30, 2023, <https://aluminum-stewardship.org/knowledge-hub/asi-aluminum>.

³¹⁴ Volkswagen Group, "Responsible Raw Materials Report 2022," July 2023, <https://www.volkswagen-group.com/en/publications/more/raw-materials-report-2022-2461>, p. 29.

³¹⁵ Ibid.

³¹⁶ Human Rights Watch meeting with Volkswagen Group, October 12, 2023, and email correspondence November 27, 2023.

Volkswagen said, however, that these measures did not apply to sourcing from its China-based non-controlled joint ventures.³¹⁷

Were car companies able to exclusively source ASI Aluminum, it would provide protection against sourcing from Xinjiang as ASI has so far not certified any Xinjiang-based aluminum smelters. ASI told Human Rights Watch that it does not currently have a policy on whether audits against its standards can be conducted in Xinjiang but that “we conduct due diligence of prospective members and this is the type of issue that would be flagged.”³¹⁸ ASI also noted that “aluminum smelting in Xinjiang is coal-powered and the GHG [greenhouse gas] intensity of aluminum production is above ASI’s threshold for smelters ... a de facto exclusion of such operations from conformance and thus ASI Certification.”³¹⁹ As a result, ASI stated that, “We do not anticipate that Entities with facilities located in Xinjiang will seek to be audited against ASI Standards because of the forced labor and GHG emissions intensity requirements noted above, and the fact that ASI publishes audit findings of all certifications. In the unlikely event that such a facility did seek ASI Certification, it would be subject to rigorous oversight on these matters.”³²⁰

At writing, however, there is too little ASI Aluminum on the market to meet carmakers’ demand for the metal. Although ASI has grown rapidly since its standards were launched in 2017, ASI Aluminum was still only in 2 percent of the aluminum in finished goods by the end of 2022.³²¹ Further up the supply chain, 10 percent of the primary aluminum produced by smelters worldwide in 2022 derived from mines, refineries, and smelters all certified against ASI’s Chain of Custody and Performance Standard.³²²

There is also the additional risk that material described as “ASI Aluminum” contains aluminum from non-certified sources, which could include material from Xinjiang. ASI employs a “mass balance approach” to its Chain of Custody standard, which foresees the mixing of aluminum from certified and non-certified sources but permits companies to

³¹⁷ Ibid.

³¹⁸ Aluminium Stewardship Initiative, Written Response to Questions from Human Rights Watch, December 20, 2023.

³¹⁹ Ibid.

³²⁰ Ibid.

³²¹ Aluminium Stewardship Initiative, “ASI CoC Material Flows: 2022 update,” August 25, 2023, <https://aluminium-stewardship.org/asi-coc-material-flows-2022-update> (accessed January 5, 2023).

³²² Ibid.

designate a proportion of their aluminum as having been sourced from certified sites.³²³ As a result, it is highly likely that a batch of aluminum designated “ASI Aluminum” in fact includes material from non-certified sources. ASI told Human Rights Watch that facilities sourcing from non-certified sources must conduct due diligence over non-certified material.³²⁴ The effectiveness of ASI’s analysis of companies’ supply chain due diligence processes is discussed in more detail below.

The current lack of availability of ASI Aluminum means that car companies cannot require all their aluminum suppliers to provide only ASI-certified aluminum. Some carmakers are instead requiring their direct suppliers to certify their factories to ASI’s Performance Standard. Tesla, for example, told Human Rights Watch that it has required its Tier 1 aluminum suppliers to certify to ASI’s Performance Standard and said that “a majority of those asked have already begun the certification process.”³²⁵ It noted that ASI’s Performance Standard includes criteria related to labor rights, “including prohibitions on the use of forced labor.”³²⁶ Audits under the Performance Standard include an assessment of whether a company uses forced labor at its own facilities, whether it sources responsibly, and whether it conducts due diligence over its aluminum supply chain to avoid involvement in armed conflict or human rights abuses.³²⁷

Carmakers should, however, be extremely cautious in using certifications against ASI’s Performance Standards as an indicator of direct suppliers’ responsible sourcing and human rights due diligence practices. Analysis of ASI audit reports suggest that auditors are not adequately assessing companies’ efforts to prevent and mitigate links to Uyghur forced labor in their supply chain.

Human Rights Watch analyzed audit reports for Chinalco subsidiary Chalco Ruimin, which makes aluminum alloys and sheets for the automotive industry.³²⁸ Chalco Ruimin is

³²³ Aluminium Stewardship Initiative, “ASI Chain of Custody (CoC) Standard – Guidance, version 2.1,” April 2023, pp. 17, 18.

³²⁴ Aluminium Stewardship Initiative, Written Response to Questions from Human Rights Watch, December 20, 2023.

³²⁵ Human Rights Watch email correspondence with Tesla, September 29, 2023.

³²⁶ Ibid.

³²⁷ Aluminium Stewardship Initiative, “Performance Standard,” Version 3.1, April 2023, Criterion 2.4, Criterion 9.8, Criterion 10.3.

³²⁸ Chalco Ruimin’s ASI entry states that it produces aluminum materials for the transportation industry. Aluminium Stewardship Initiative, “ASI Member: Chalco Ruimin Co., Ltd.,” webpage, last accessed December 30, 2023, <https://aluminum-stewardship.org/about-asi/asi-members/chalco-ruimin-co-ltd>. In 2021, media reported that Chinalco

certified against the ASI Performance Standard and Chain of Custody Standard.³²⁹ Xinjiang Zhonghe, a Xinjiang-based smelter, stated in 2021 and 2022 that it supplies aluminum products to Chalco Ruimin.³³⁰ Xinjiang Zhonghe stopped disclosing its downstream customers in 2023. As a member of the Chinalco group, Chalco Ruimin may also source aluminum from other Chinalco entities. Chinalco's trading arm has purchased aluminum from Xinjiang. Another Chalco entity linked to the car industry, Southwest Aluminum, is an ASI member but at writing had not yet conducted an audit against the Performance Standard.³³¹

Notwithstanding Chalco Ruimin's potential links to forced labor in Xinjiang, an August 2023 audit against ASI's Performance Standard gave Chalco Ruimin a "Conformance" grade both for its responsible sourcing and for the measures it takes to identify, assess, and respond to risks related to sourcing from conflict-affected and high-risk areas.³³² The audit report stated that, "The Entity has implemented a Supply Chain Policy and Management Systems with established responsibilities and resources, information gathering, and supplier engagement requirements."³³³ It further stated that "The Entity has identified and assessed the risks in its supply chain through periodical risk assessments. No conflict minerals are used, and no materials are from the Conflict-Affected and High-Risk Areas (CAHRAs). There are no identified critical Human Rights issues such as Child Labor and Forced Labor."³³⁴ The audit did, however, flag a minor non-conformance as

Ruimin is building a new plant focused on "projects such as lightweight transportation, automobile plate and electronic aluminum." "New development of aluminum foil for lithium-ion battery," *SMM*, November 15, 2014, <https://news.metal.com/newscontent/101665499/new-development-of-aluminum-foil-for-lithium-ion-battery>.

³²⁹ Ibid.

³³⁰ Xinjiang Zhonghe, "Marketing Material," January 30, 2021, <http://www.joinworld.com/images/shouce-hejin.pdf>, archived: <https://web.archive.org/web/20221210040709/http://www.joinworld.com/images/shouce-hejin.pdf>, p. 3 (accessed December 30, 2023). Xinjiang Zhonghe, "2022 Semo-Annua Report," September 30, 2022, <http://www.joinworld.com/index.aspx?c=download&from=annex&id=2878&name=%E6%96%Bo%E7%96%86%E4%BC%97%E5%92%8C%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B82022%E5%B9%B4%E5%8D%8A%E5%B9%B4%E5%BA%A6%E6%8A%A5%E5%91%8A.pdf>, archived: <https://web.archive.org/web/20240105171908/http://www.joinworld.com/index.aspx?c=download&from=annex&id=2878&name=%E6%96%Bo%E7%96%86%E4%BC%97%E5%92%8C%E8%82%A1%E4%BB%BD%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B82022%E5%B9%B4%E5%8D%8A%E5%B9%B4%E5%BA%A6%E6%8A%A5%E5%91%8A.pdf> (accessed December 19, 2023).

³³¹ Aluminium Stewardship Initiative, "ASI Member: CHINALCO-SWA CO., Ltd.," webpage, last accessed December 30, 2023, <https://aluminium-stewardship.org/about-asi/asi-members/chinalco-swa-co-ltd>.

³³² Aluminium Stewardship Initiative, "ASI Summary Audit Report: Performance Standard, Chalco Ruimin, Co. Ltd.," December 30, 2023, https://aluminium-stewardship.org/wp-content/uploads/2023/09/ASI-Audit-Report-Chalco-Ruimin-Co.Ltd_-Certificate-g2-PS-Rev-2.pdf (accessed September 13, 2023).

³³³ Ibid., p. 14.

³³⁴ Ibid.

regards Chalco Ruimin’s reporting on its supply chain due diligence procedures, noting that “relevant information and practice performance on supply chain Due Diligence, especially the practices on managing conflict materials are not publicly disclosed.”³³⁵

The Chalco Ruimin audit also gave the company a “Conformance” grade for “Human Rights Impact Assessment,” linking to the company’s Human Rights Impact Assessment report.³³⁶ The four-page Human Rights Impact Assessment, which is intended to cover risks both in the company’s own operations and in its supply chain, contained no reference to the risk of forced labor in Xinjiang.³³⁷

Human Rights Watch asked ASI why the audit of Chalco Ruimin did not identify Uyghur forced labor as a “critical human rights issue.” ASI stated that it had in 2022 “conducted outreach to all ASI members regarding the [Sheffield Hallam report on forced labor in automotive supply chains]. Our understanding is that supply chains were adjusted to meet the UFLPA, which came into effect from mid-2022, and international customer expectations.”³³⁸ ASI then repeated the auditor’s finding that “no critical human rights issues regarding child labor or forced labor were found” and stated that “Specific reference to ‘Uyghur forced labor’ was likely not incorporated in the audit report due to political sensitivities in China on this specific issue.”³³⁹

Human Rights Watch asked ASI what evidence the auditors relied on to determine that Chalco Ruimin was adequately addressing links to human rights abuses. ASI said that the evidence reviewed by the audit team included Chalco Ruimin’s management procedure for conflict-affected and high-risk areas; responsible sourcing policy;³⁴⁰ commitment letter not to use conflict minerals signed by suppliers; supply chain social responsibility audit reports; and the annual sustainability report.³⁴¹

³³⁵ Ibid.

³³⁶ Ibid. p. 6.

³³⁷ Chalco Ruimin, “Human Rights Impact Assessment,”

<http://www.ruimin.cn/plugin/apop/zlrm/viewResponsibility.pw?id=245>, (Copy on file with Human Rights Watch, accessed November 14, 2023).

³³⁸ Aluminium Stewardship Initiative, Written Response to Questions from Human Rights Watch, December 20, 2023.

³³⁹ Ibid.

³⁴⁰ Chalco Ruimin, “中铝瑞闽股份有限公司 负责任采购方针” [Chinalco Ruimin Co., Ltd. Responsible Procurement Policy], 2022, <http://ruimin.cn/plugin-in/login/ruimin-website/doc/中铝瑞闽股份有限公司 ASI 负责任采购方针.pdf>. (Accessed November 14, 2023. Copy on file with Human Rights Watch, as this document could not be archived).

³⁴¹ Aluminium Stewardship Initiative, Written Response to Questions from Human Rights Watch, December 20, 2023.

Closer analysis of these materials, however, raises serious questions about how the auditors could have known whether Chalco Ruimin was effectively managing its supply chains to avoid links to forced labor in Xinjiang. Although the company's five-page responsible sourcing policy commits Chalco Ruimin to cease doing business with suppliers that participate in forced labor, it provides very little detail on what oversight Chalco Ruimin actually conducts over suppliers, including how it maps its aluminum supply chain to identify potential links to Xinjiang.

Chalco Ruimin's 2022 Sustainability Report stated that the company's policies require "the company's Responsible Purchasing Policy be communicated to suppliers, and that suppliers be assessed, selected, and regularly evaluated and sorted out for high quality," including "labor" and "human rights."³⁴² It also stated that, "Every year, the company selects some suppliers from the list of qualified suppliers for on-site auditing to ensure that they can meet the company's requirements in terms of quality control, service level, fulfillment ability, labor and human rights, occupational health and safety, environmental protection, bank credit rating and so on."³⁴³ The Sustainability Report provided no detail on how many audits were conducted in 2022, which suppliers were audited, and how audits assess whether suppliers are adequately addressing the risk of links to forced labor. Chalco Ruimin, when asked by Human Rights Watch where it purchases its aluminum and whether that includes material from Xinjiang, did not respond.

An audit against ASI's Performance and Chain of Custody standards also gave a "Conformance" grade for responsible sourcing and human rights due diligence to an aluminum foil manufacturer, Shanghai Sunho Aluminum Foil, co-owned³⁴⁴ by a company, Henan Shenhua Group, that sources a significant amount of its aluminum from a Xinjiang subsidiary.³⁴⁵ A February 2022 summary audit report gave Shanghai Sunho Aluminum Foil a "Conformance" grade for responsible sourcing and referred to the company's

³⁴² Chalco Ruimin, "Sustainability Report 2022," (Copy on file with Human Rights Watch, accessed November 14, 2023).

³⁴³ Ibid.

³⁴⁴ Aluminium Stewardship Initiative, "ASI Member: Shanghai Sunho Aluminum Foil Co., Ltd.," webpage, last accessed December 30, 2023, <https://aluminum-stewardship.org/about-asi/asi-members/shanghai-shenhua-aluminum-foil-co-ltd>.

³⁴⁵ Ibid. Aluminium Stewardship Initiative, "ASI Summary Audit Report: Performance Standard, Shanghai Sunho Aluminum Foil Co., Ltd.," February 28, 2022 (accessed December 30, 2023). Aluminium Stewardship Initiative, "ASI Certification: Chain of Custody Standard, Presented to Shanghai Sunho Aluminum Foil Co., LTD.," January 10, 2023, <https://aluminum-stewardship.org/wp-content/uploads/2023/02/ASI-Summary-Audit-Report-Shanghai-Sunho-Aluminum-Foil-Certificate-65-CoC-Rev-3.pdf>. Henan Shenhua, "2020 Annual report".

responsible purchasing policy.³⁴⁶ The two-page responsible sourcing policy referenced, however, provides very little detail of how the company provides any oversight of its suppliers.³⁴⁷ It does prohibit suppliers from practicing forced labor but provides no information on how Shanghai Sunho Aluminum Foil assesses and addresses risks that suppliers are participating in forced labor.³⁴⁸ It also does not discuss the risk that Shanghai Sunho Aluminum Foil might be sourcing aluminum from its parent company, Henan Shenhua Group, which produces aluminum in Xinjiang.

When asked what evidence, beyond the responsible sourcing policy, the auditors reviewed to award Shanghai Sunho Aluminum Foil a conformance grade for responsible sourcing, ASI stated: “The ASI-Accredited Audit Team noted that the Entity has developed and implemented a procedure for the implementation of the ASI Performance Standard in its Supply Chain. Suppliers sign a commitment letter to promise to not use minerals/metals from high-risk areas. The Entity conducts due diligence investigations to confirm the metals are not from the high-risk areas. ‘Next-tier’ suppliers can be disqualified if high-risks have been identified. During the audit, the Audit Team reviewed Compliance letters signed by suppliers, a Supplier Audit plan; Supplier audit reports and interviewed Entity management representatives.”³⁴⁹

Shanghai Sunho Aluminum Foil, when asked by Human Rights Watch where it purchases its aluminum from and whether that includes material from Xinjiang, did not respond.

Kendyl Salcito, an aluminum industry expert whose nongovernmental organization, NomoGaia, co-authored the Sheffield Hallam University report on Uyghur forced labor in automotive supply chains, also sits on ASI’s Standards Committee. The Standards Committee develops ASI’s standards and the audit protocols used to assess companies’ compliance with the standards.³⁵⁰ Salcito told Human Rights Watch that ASI is in a

³⁴⁶ Aluminium Stewardship Initiative, “ASI Summary Audit Report: Performance Standard, Shanghai Sunho Aluminum Foil Co., Ltd.,” February 28, 2022 (accessed December 30, 2023).

³⁴⁷ Shanghai Sunho Aluminum Foil, “负责任的铝采购/尽职调查方针” [Shanghai Sunho Aluminum Foil Co. Responsible Aluminum Sourcing/Due Diligence Policy], October 11, 2018, <http://www.shalfoil.com/NewsDetail.aspx?ID=2816>, (accessed November 14, 2023. Copy on file with Human Rights Watch, as this document could not be archived).

³⁴⁸ Ibid.

³⁴⁹ Aluminium Stewardship Initiative, Written Response to Questions from Human Rights Watch, December 20, 2023.

³⁵⁰ Aluminium Stewardship Initiative, “ASI Standards Committee,” undated, <https://aluminium-stewardship.org/about-asi/standards->

“difficult position,” because China’s dominant role in primary aluminum production means that, “in order to be globally relevant, ASI needs to engage with Chinese operators.”³⁵¹ At the same time, Salcito expressed concern that the challenges of auditing in China, especially the Chinese government’s hostility to auditors or auditees discussing Uyghur forced labor, made it very difficult for ASI to credibly assess whether Chinese companies are taking adequate steps to eliminate links to Xinjiang. Salcito said that using the political sensitivity of China’s abuses in Xinjiang as a reason not to discuss forced labor in audit reports “gives the Chinese government carte blanche to quash discussion of abuses in the Uyghur region. If auditors can’t document links between aluminum producers and forced labor, how can ASI credibly claim to be auditing forced labor risks?”³⁵²

Auditors’ limited analysis of companies’ efforts to eliminate links to forced labor means that carmakers should not rely on audits under ASI’s Performance Standard to assess whether a supplier is sourcing responsibly. Tesla, in its response to Human Rights Watch, said that it “does not consider certification to ASI standards as a replacement for our own due diligence but as a signal that these companies will uphold Tesla’s values. All aluminum suppliers are subject to the same due diligence efforts regardless of their ASI certification status.”³⁵³

committee#:~:text=The%20Standards%20Committee%20is%20focussed,%2F%20Indigenous%20peoples%20(half) (accessed January 8, 2024).

³⁵¹ Human Rights Watch written correspondence with Kendyl Salcito, January 7, 2024.

³⁵² Ibid.

³⁵³ Ibid.

V. Government Regulation of Supply Chains

The Chinese government's continued use of forced labor in Xinjiang, and the failure of car companies to adequately address forced labor risks, underscore the need for governments to require companies to map their supply chains and eliminate links to forced labor and other human rights abuses.

United States

In the United States, both the administration of President Joe Biden and Congress have implemented measures focused on tackling business links to forced labor in Xinjiang. The December 2021 passage of the Uyghur Forced Labor Prevention Act (UFLPA), which entered into force in June 2022, strengthened a pre-existing ban on imports produced by forced labor.³⁵⁴ The law established a presumption that goods made in whole or in part in Xinjiang, or produced by entities in China linked to forced labor, are not eligible to be imported into the United States.³⁵⁵

Since the passage of the UFLPA, customs officials had, as of December 22, 2023, targeted for inspection 6,315 goods shipments, worth \$2.2 billion, due to suspected links to Xinjiang or forced labor elsewhere in China.³⁵⁶ Officials had denied entry to 2,547 shipments, worth \$514 million.³⁵⁷ The US government has not yet officially designated aluminum as a “high-priority sector” for enforcement under the UFLPA, but several law firms that advise companies on UFLPA compliance have publicly warned clients that aluminum shipments are at risk of detention.³⁵⁸

³⁵⁴ “China: US Law Against Uyghur Forced Labor Takes Effect,” Human Rights Watch news release, June 20, 2022, <https://www.hrw.org/news/2022/06/20/china-us-law-against-uyghur-forced-labor-takes-effect>.

³⁵⁵ *Ibid.*

³⁵⁶ US Customs and Border Protection, “Uyghur Forced Labor Prevention Act Statistics,” webpage, December 22, 2023, <https://www.cbp.gov/newsroom/stats/trade/uyghur-forced-labor-prevention-act-statistics>.

³⁵⁷ *Ibid.*

³⁵⁸ Jasmine Martel and Jeffrey Neeley, “Possible Forced Labor Enforcement Remedies on Aluminum Products,” *JDSupra*, February 14, 2023, <https://www.jdsupra.com/legalnews/possible-forced-labor-enforcement-1265228> (accessed December 30, 2023). Miller & Chevalier, “Trade Compliance Flash: Prepare for CBP’s UFLPA Enforcement Against Aluminum Products,” January 13, 2023, <https://www.millerchevalier.com/publication/trade-compliance-flash-prepare-cbps-uflpa-enforcement-against-aluminum-products> (accessed December 30, 2023). The UFLPA requires the Forced Labor Enforcement Task Force (FLETF), a multiagency taskforce chaired by the Department of Homeland Security, to create a list of “high-priority sectors” for enforcement of the UFLPA, including “cotton, tomatoes, and polysilicon,” and to develop an enforcement plan for each high-

The available data, however, suggests that detentions of aluminum or car industry products under the UFLPA have been relatively limited. Since June 2022, US Customs and Border Protection (CBP) has targeted for closer inspection 59 shipments of automotive and aerospace parts, totaling \$4 million in value.³⁵⁹ Forty-two shipments, of \$3 million value, were denied entry.³⁶⁰ CBP has also examined 261 shipments of base metals, which could include aluminum, totaling \$109 million, with 37 shipments, worth \$6 million, denied entry.³⁶¹

Customs officials' ability to detain goods under the law is currently limited by the difficulty that officials have in accessing the supply chain data necessary to identify whether a product was produced in whole or in part from Xinjiang. To push for increased corporate disclosure of potential supply chain links to the XUAR, two US senators from the major parties in May 2023 proposed legislation that would have required companies listed on US stock exchanges to disclose to the Securities and Exchange Commission (SEC) the name, address, and sourcing quantities of any smelter, refinery, or manufacturing facility with which the company has a business relationship and which operates in Xinjiang or participates in XUAR labor transfer programs.³⁶² A separate set of SEC disclosure rules related to conflict minerals in the Democratic Republic of Congo, which came into force in 2012, has led companies, including Ford, General Motors, and Tesla, to disclose lengthy lists of the refineries and smelters where they source gold, tantalum, tin, and tungsten.³⁶³

priority sector. US Department of Homeland Security, "UFLPA Frequently Asked Questions," webpage, updated August 1, 2023, <https://www.dhs.gov/uflpa-frequently-asked-questions>.

³⁵⁹ US Customs and Border Protection, "Uyghur Forced Labor Prevention Act Statistics," webpage, current as of December 4, 2023, <https://www.cbp.gov/newsroom/stats/trade/uyghur-forced-labor-prevention-act-statistics>.

³⁶⁰ Ibid.

³⁶¹ Ibid.

³⁶² Uyghur Genocide Accountability and Sanctions Act (UGASA), Section 11, Disclosure to Securities and Exchange Commission of Certain Activities Related to Xinjiang Uyghur Autonomous Region, https://www.rubio.senate.gov/wp-content/uploads/_cache/files/f82e1f4a-4d3d-431b-bf02-93900e97ca5b/46ED859781D9055FD9FBoE8CD734DDoD.ugasa.pdf. See "Rubio, Merkley Introduce Landmark Legislation to Hold the CCP Accountable for Crimes in Xinjiang," Press Release, May 31, 2023, <https://www.merkley.senate.gov/rubio-merkley-introduce-landmark-legislation-to-hold-the-ccp-accountable-for-crimes-in-xinjiang/>. See also Marti Flacks, "What's Next for the Uyghur Forced Labor Prevention Act?" Center for Strategic and International Studies (CSIS), June 21, 2023, <https://www.csis.org/analysis/whats-next-uyghur-forced-labor-prevention-act> (accessed September 28).

³⁶³ US Securities and Exchange Commission, "Fact Sheet: Disclosing the Use of Conflict Minerals," webpage (accessed September 11, 2023). Ford Motor Company, "Specialized Disclosure Report: Ford Motor Company, Conflict Minerals Report for the Year Ended December 31, 2021," May 31, 2022, <https://corporate.ford.com/content/dam/corporate/us/en-us/documents/legal/Form-SD-and-CMR-for-Year-Ended-December-31-2021.pdf> (accessed September 11, 2023). General Motors, "Specialized Disclosure Report: General Motors Company, Conflict Minerals Report," June 1, 2021, <https://investor.gm.com/static-files/d4ab597b-78fd-48c1-bbe7-e3f3b735b734> (accessed September 11, 2023). Tesla, "Tesla Conflict Minerals Report for the Year Ended 2021," <https://www.tesla.com/sites/default/files/about/legal/2021-conflict-minerals-report.pdf?redirect=no> (accessed September 11, 2023). See also Mike Loch, Gregory Mthembu-Salter, Famke

The criticism that the rules have faced, including that they threatened the livelihoods of Congolese miners by discouraging sourcing from Congo entirely, are less relevant to forced labor in Xinjiang.³⁶⁴ Indeed, in light of the pervasiveness of forced labor in Xinjiang and the impossibility of due diligence, stopping XUAR sourcing and the risk of exposure to forced labor would be a positive impact.

Car industry links to forced labor in Xinjiang have also received scrutiny from US legislators. In December 2022, Senator Ron Wyden, the chair of the Senate Finance Committee, which has scrutinized the US government's implementation of the UFLPA, sent letters to eight major carmakers, including General Motors, Tesla, Toyota, and Volkswagen, to ask about "reports that their supply chains may include materials sourced from the Xinjiang region of China, where forced labor is rampant."³⁶⁵

The letter, which followed Sheffield Hallam University and NomoGaia's reporting on car industry links to Xinjiang, stated that it was part of the "Senate Finance Committee's investigation of the effectiveness of trade-based efforts by the United States to combat forced labor and other serious human rights abuses in China."³⁶⁶ The letter requested answers to questions about the car companies' efforts to map their supply chains to determine links to Xinjiang and any examples of disengagement from Xinjiang-linked suppliers.³⁶⁷

Senator Wyden sent a follow-up letter to the same companies in March 2023 requesting additional information, including a request that the companies disclose their "five largest tier 1 suppliers that have any direct or indirect sub-suppliers in China, including mines, mineral

Schaap and Kyle Loch, "Conflict Minerals, Over a Decade of Effort and Impacts," (Potsdam: Friedrich Naumann Foundation for Freedom, January 2023), <https://shop.freiheit.org/#!/Publikation/1435> (accessed September 11, 2023), pp. 15-16.

³⁶⁴ Laura E. Seay, "What's Wrong with Dodd-Frank 1502? Conflict Minerals, Civilian Livelihoods, and the Unintended Consequences of Western Advocacy," Center for Global Development working paper 284, January 2012, https://www.cgdev.org/sites/default/files/1425843_file_Seay_Dodd_Frank_FINAL.pdf (accessed September 11, 2023).

³⁶⁵ "Senate Finance Committee Chair Wyden Questions Major Automakers About Supply Chain Links to Forced Labor in Xinjiang, China," US Senate Committee on Finance news release, December 22, 2022, <https://www.finance.senate.gov/chairmans-news/senate-finance-committee-chair-wyden-questions-major-automakers-about-supply-chain-links-to-forced-labor-in-xinjiang-china> (accessed December 30, 2023).

³⁶⁶ Ibid.

³⁶⁷ Ibid.

processors, and any affiliated entities.”³⁶⁸ At writing, General Motors, Tesla, Toyota, and Volkswagen had not publicly disclosed their responses to the Senate Finance Committee.

European Union

In the European Union, national-level responsible sourcing laws, including in France and Germany, have not had a Xinjiang-specific focus and have instead required companies to tackle human rights abuses in their global supply chains.³⁶⁹

EU institutions are at writing preparing a law, the Corporate Sustainability Due Diligence Directive, that would impose obligations on companies that fall within its scope to address human rights abuses in their supply chains.³⁷⁰ The European Council and Parliament agreed on a draft text for the law on December 14, 2023.³⁷¹ The European Commission, in explaining the need for the law, stated that it “will play an essential role in tackling the use of forced labor [in] global value chains.”³⁷² The EU law is not China specific but applies globally, and to a wide range of human rights abuses, not just forced labor. The law also sets out the circumstances in which a company is expected to disengage from relationships with suppliers where they cannot prevent, adequately mitigate, or end human rights impacts.³⁷³

³⁶⁸ “Senate Finance Committee Chair Wyden Expands Investigation of Auto Supply Chain Links to Forced Labor in Xinjiang, China,” US Senate Committee on Finance news release, March 28, 2023, <https://www.finance.senate.gov/chairmans-news/senate-finance-committee-chair-wyden-expands-investigation-of-auto-supply-chain-links-to-forced-labor-in-xinjiang-china> (accessed December 30, 2023). Letter from Ron Wyden, Chairman of the US Senate Committee on Finance, to James D. Farley, Jr., President and CEO of Ford Motor Company, March 28, 2023, <https://www.finance.senate.gov/imo/media/doc/3.28.23%20Letter%20from%20Chairman%20Wyden%20to%20Ford%20Motor%20Company.pdf> (accessed September 11, 2023).

³⁶⁹ “France’s Due Diligence Law – Loi sur le devoir de vigilance,” *iPoint*, <https://go.ipoint-systems.com/blog/loi-sur-le-devoir-de-vigilance-due-diligence-law-in-france> (accessed December 30, 2023). “Germany: New Supply Chain Law a Step in the Right Direction,” Human Rights Watch news release, June 11, 2021, <https://www.hrw.org/news/2021/06/11/germany-new-supply-chain-law-step-right-direction>.

³⁷⁰ European Commission, Proposal for a Directive of the European Council and Parliament on Corporate Sustainability Due Diligence, amending Directive (EU) 2019/1937, https://commission.europa.eu/publications/proposal-directive-corporate-sustainability-due-diligence-and-annex_en.

³⁷¹ European Council, “Corporate sustainability due diligence: Council and Parliament strike deal to protect environment and human rights,” Press Release, December 14, 2023, <https://www.consilium.europa.eu/en/press/press-releases/2023/12/14/corporate-sustainability-due-diligence-council-and-parliament-strike-deal-to-protect-environment-and-human-rights/> (accessed January 9, 2024).

³⁷² European Commission, Proposal for a Directive of the European Council and Parliament on Corporate Sustainability Due Diligence, p. 7.

³⁷³ *Ibid.*, articles 7(5) and 8(6).

The European Union is also negotiating its own law prohibiting the import or export of any products linked to forced labor globally.³⁷⁴ The European Commission's proposal for the law, however, failed to provide a mechanism for restricting the imports of products from an entire region where, as in Xinjiang, there is both state-imposed forced labor and levels of surveillance and threats to workers that make verifying workers' conditions impossible. This would limit the law's effectiveness in stopping imports from the XUAR.³⁷⁵ In contrast, the European Parliament, which adopted its own proposal for the law in October 2023, introduced amendments that would empower the European Commission to identify geographic areas and economic sectors where there is high risk of state-imposed forced labor, which would then shift the burden of proof to companies to prove they are not importing or exporting products made with forced labor.³⁷⁶ Nongovernmental organizations, including Human Rights Watch, have called on European institutions to adopt the parliament's language during the negotiations over the final law.³⁷⁷

Laws requiring companies to conduct oversight over their supply chains can provide tools to regulators and nongovernmental organizations seeking to hold companies accountable if they fail to eliminate forced labor from their supply chains. In Germany, the European Center for Constitutional and Human Rights (ECCHR), a nongovernmental organization, on June 21, 2023, filed complaints with a German regulator arguing that Volkswagen, BMW, and Mercedes-Benz were violating their obligations under the country's supply chain law by failing to tackle supply chain links to forced labor in Xinjiang, both for aluminum and other materials.³⁷⁸ The complaints, submitted to the Federal Office for Economic Affairs and Export Control (BAFA), the administrative authority tasked with monitoring and enforcing

³⁷⁴ European Commission, "Proposal for a regulation on prohibiting products made with forced labour on the Union market," September 14, 2022, https://single-market-economy.ec.europa.eu/document/785da6ff-abe3-43f7-a693-1185c96e930e_en (accessed December 30, 2023). See also European Parliament, Briefing, "Proposal for a ban on goods made using forced labor, February 2023, [https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/739356/EPRS_BRI\(2023\)739356_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/739356/EPRS_BRI(2023)739356_EN.pdf) (accessed December 30, 2023).

³⁷⁵ Worker Rights Consortium, "EU Forced Labour Proposal Falls Short on Uyghur Forced Labor," commentary, September 15, 2022, <https://www.workersrights.org/commentary/eu-forced-labour-proposal-falls-short-on-uyghur-forced-labour/> (accessed December 30, 2023).

³⁷⁶ European Parliament, "Amendments to proposal for a regulation on prohibiting products made with forced labor on the Union market," https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/CJ33/DV/2023/10-16/FinalCAS1-6ArticlesEN.pdf, Article 11(1b), Article 11, Article 5(2)(da), Article 6(2a).

³⁷⁷ Anti-Slavery International, Human Rights Watch et al, "Securing a General Approach on the Forced Labor Regulation," November 27, 2023, https://www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/CJ33/DV/2023/10-16/FinalCAS1-6ArticlesEN.pdf (accessed January 9, 2023).

³⁷⁸ European Center for Constitutional and Human Rights, "Questions and Answers: German economic engine roars thanks to forced labor: Complaint filed against VW, BMW and Mercedes Benz," https://www.ecchr.eu/fileadmin/user_upload/Q_A_BAFA_FINAL_website.pdf (accessed December 30, 2023).

the supply chain law, referenced Sheffield Hallam University and NomoGaia's reporting. BAFA can initiate administrative action and impose fines on companies that fail to carry out their obligations under the law.³⁷⁹ At writing, ECCHR said that BAFA had so far not responded publicly to the complaint.

Other Governments

In addition to the United States and European Union, several other governments have passed or are considering laws to restrict imports linked to forced labor. The laws are vital to ensure that cars and other products with forced labor risks, which cannot be imported into countries with strong forced labor laws, are not simply exported elsewhere.

In Canada and Mexico, for example, both countries are required by the 2019 United States-Mexico-Canada free trade agreement to implement bans on imports linked to forced labor.³⁸⁰ Canada introduced a ban on forced labor on July 1, 2020, but has not adequately enforced it and has not adopted laws, such as a presumption against imports from Xinjiang, to address Chinese government-sponsored forced labor.³⁸¹ Canada in 2023 did adopt a law requiring companies to report on what steps, if any, they have taken to prevent and reduce the risk of forced or child labor in their supply chains.³⁸² The law does not, however, actually require companies to take action to address forced labor or child labor risks.³⁸³ Mexico adopted provisions banning the import of goods linked to forced labor in February 2023, but has also not implemented specific measures to tackle goods linked to

³⁷⁹ German Act on Corporate Due Diligence Obligations for the Prevention of Human Rights Violations in Supply Chains, <https://www.csr-in-deutschland.de/EN/Business-Human-Rights/Supply-Chain-Act/supply-chain-act.html>, Sections 23 and 24.

³⁸⁰ United States Department of Labor, "Labor Rights and the United States-Mexico-Canada Agreement (USMCA)," undated, <https://www.dol.gov/agencies/ilab/our-work/trade/labor-rights-usmca> (accessed December 30, 2023).

³⁸¹ Aristeo Lopez and Sally Alghazali, "North American countries finally align on forced labor regulations," *Reuters*, April 28, 2023, <https://www.reuters.com/legal/legalindustry/north-american-countries-finally-align-forced-labor-regulations-2023-04-28/> (accessed December 30, 2023). Robert Fife and Steven Chase, "Uyghur Canadians call for tougher law against Chinese goods produced by forced labor," *Globe and Mail*, November 20, 2022, <https://www.theglobeandmail.com/politics/article-uyghurs-china-forced-labor-canada/> (accessed December 30, 2023).

³⁸² "MPs pass law meant to curb forced labour, as critics decry its lack of teeth," *CTV News*, May 3, 2023, <https://www.ctvnews.ca/politics/mps-pass-law-meant-to-curb-forced-labour-as-critics-decry-its-lack-of-teeth-1.6382930> (accessed December 30, 2023). Canadian Network for Corporate Accountability, "Canada's new law on forced and child labour in supply chains won't work," May 3, 2023, <https://cnca-rcrce.ca/2023/05/03/canadas-new-law-on-forced-and-child-labour-in-supply-chains-wont-work/> (accessed December 30, 2023).

³⁸³ *Ibid.*

state-sponsored forced labor, including in Xinjiang.³⁸⁴ Neither the United Kingdom nor Australia, both major export destinations for Chinese-made cars, have adopted laws banning imports linked to forced labor.³⁸⁵

Lessons for Effective Government Action

As governments move towards stronger oversight of global supply chains, both for forced labor specifically and human rights more broadly, the links between Xinjiang's aluminum industry and the global car industry point to several key elements of effective government action.

First, and most importantly, governments should **remain steadfast in their efforts to pass and enforce laws requiring companies to prevent and mitigate links to forced labor** and other forms of human rights abuses. This should include "due diligence" laws requiring companies to address human rights impacts in their operations and supply chains and laws prohibiting the import of goods linked to forced labor. **Forced labor bans should include specific measures to target imports linked to state-sponsored forced labor, including a presumption against any import from Xinjiang and measures to target specific product groups, including aluminum, with high risks of state-imposed forced labor.** The Chinese government's continued repression in Xinjiang, and its efforts to constrain business actions to identify and address links to forced labor in the region, underscore the importance for governments to make clear that respect for human rights is a condition of access to their markets.

Second, the flow of aluminum from Xinjiang-based smelters to carmakers, often via a network of intermediaries and traders, underscores the need for governments to require companies to adopt a **sophisticated, comprehensive approach to due diligence that reflects the complexity of modern supply chains.** Regulators should not allow companies

³⁸⁴ "North American countries finally align on forced labor regulations," *Reuters*, April 28, 2023, <https://www.reuters.com/legal/legalindustry/north-american-countries-finally-align-forced-labor-regulations-2023-04-28/> (accessed December 30, 2023). Mark R. Ludwikowski, "Mexico Bans Importation of Goods Produced with Forced Labor," *Clark Hill*, April 3, 2023, <https://www.clarkhill.com/news-events/news/mexico-bans-importation-of-goods-produced-with-forced-labor/> (accessed December 30, 2023).

³⁸⁵ Yasmine Ahmed, "UK Lags Behind Tackling Forced Labor in Xinjiang New Measures to Address Abuses in Chinese Region Insufficient," *Human Rights Watch*, January 16, 2021, <https://www.hrw.org/news/2021/01/16/uk-lags-behind-tackling-forced-labor-xinjiang> (accessed December 30, 2023). Human Rights Watch, "Australia: Act on China's Abuses in Xinjiang," Press Release, September 13, 2022, <https://www.hrw.org/news/2022/09/13/australia-act-chinas-abuses-xinjiang> (accessed December 30, 2023).

to focus only on addressing human rights risks at first-tier suppliers, or to limit their engagement to indirect suppliers with whom they have longer-lasting, more established relationships. Laws should instead require companies to adopt a risk-based approach to due diligence, assessing risks across their whole supply chain and prioritizing action to tackle the most serious and most immediate risks, wherever in the supply chain they occur.

Third, and relatedly, the failure of the aluminum industry to identify and tackle the links between the aluminum smelting and labor transfers in Xinjiang demonstrates that governments should not allow carmakers and other companies to **overly rely on the contractual obligations they impose on their suppliers**. Contractual obligations are difficult to enforce and shift responsibility from the company to its suppliers. Governments should instead impose legal obligations on companies to take their own measures, beyond contractual assurances, to identify and address forced labor and other human rights abuses throughout their supply chains.

Fourth, the opacity of aluminum supply chains, which enables carmakers to both obscure and claim lack of knowledge of their links to aluminum smelting in Xinjiang, makes it vital for **governments to require companies to both map and disclose their supply chains, to the raw material level**. Requiring companies to disclose supply chains is vital to ensure that regulators and nongovernmental organizations can scrutinize where carmakers and other businesses are sourcing from and take action to enforce import bans and other laws designed to tackle forced labor and other human rights abuses.

Fifth, car companies' failure to ensure that their joint ventures in China uphold the same due diligence standards as their own operations, including with respect to forced labor, underscores the need for **due diligence laws to specifically require companies to address human rights risks in their joint ventures' supply chains**. Laws should make clear that any company with significant influence over a joint venture is required to use its influence to tackle that business' human rights and environmental impacts. Any analysis of a company's influence over a joint venture should reflect not only how ownership is structured, but also whether the joint venture sells vehicles in the company's own brand, whether the company accounts for sales by the joint venture in its own sales figures, and the level of profit and revenue generated by the company from the joint venture.

Finally, the failure of the Aluminium Stewardship Initiative to meaningfully investigate whether China-based manufacturers are addressing the risks of links to forced labor in Xinjiang provides further evidence that **regulators cannot allow car companies to rely on certification and audits initiatives to verify where their suppliers are linked to forced labor.** Responsible sourcing laws should make clear that companies should only ever use certifications and audits as one tool with which to assess a company's or facility's sourcing practices, to be crosschecked with other sources and evidence, including the company's own supply chain mapping and broader due diligence.

Car companies' belated and still inconsistent efforts to identify links to forced labor has in large part been driven by the threat of regulatory scrutiny and import restrictions. Accelerating government efforts to require companies to map and disclose their supply chains, and tackle the abuses within them, can push companies to develop strong human rights due diligence practices and apply the same standards in China that they apply across all their operations. Doing business in China should not mean compromising on human rights.

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Asleep at the Wheel

Car Companies' Complicity in Forced Labor in China

China is increasingly central to the global car industry, with domestic and foreign manufacturers producing and exporting more cars in China than in any other country in 2023. But millions of tons of aluminum, a key material for car manufacturing, are produced in the Xinjiang Uyghur Autonomous Region (Xinjiang), where the Chinese government has subjected Uyghurs and other Turkic Muslim communities to forced labor and other abuses.

Asleep at the Wheel uses Chinese state media articles, company reports, and government statements to document the links between global carmakers, the aluminum industry, and Chinese government-backed labor transfer programs, which coerce Uyghurs and other Turkic Muslims into jobs in Xinjiang and other regions.

The report assesses how car companies, including BYD, General Motors, Tesla, Toyota, and Volkswagen, have responded to forced labor risks. Some carmakers have succumbed to Chinese government pressure to apply weaker human rights and responsible sourcing standards in China than in their global operations, increasing the risk of exposure to forced labor in Xinjiang in their supply chains. Most have done too little to map their aluminum supply chains and identify possible links to forced labor.

The report calls on governments to pass laws prohibiting the import of products linked to forced labor and requiring companies to disclose their supply chains. Doing business in China should not mean putting human rights protections in reverse.

(above) A guard stands in a tower on the perimeter of the Number 3 Detention Center in Dabancheng in Xinjiang Uyghur Autonomous Region on April 23, 2021.

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(front cover) Cars are delivered on a production line at SAIC General Motors Dongyue Automobile Co. Ltd. in Yantai, Shandong province, China, November 17, 2022.

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