



FRACTURED VEINS

*The world's reliance on minerals
from the Uyghur region*

ABOUT C4ADS

C4ADS (www.c4ads.org) is a 501(c)(3) nonprofit organization dedicated to data-driven analysis and evidence-based reporting of conflict and security issues worldwide. Our approach leverages nontraditional investigative techniques and emerging analytical technologies. We recognize the value of working on the ground in the field, capturing local knowledge, and collecting original data to inform our analysis. At the same time, we employ cutting edge technology to manage and analyze that data. The result is an innovative analytical approach to conflict prevention and mitigation.

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In the afternoon of December 24th, 2022, routine sounds of machinery and footfalls at the Yili Western Region Gold Mine in Ghulja, Xinjiang Uyghur Autonomous Region were drowned out by a sudden roar.

Eighteen laborers who had been working the mine moments before were suddenly unaccounted for, trapped underground beneath layers of rubble and earth.

Those waiting to hear details on the accident's cause and the fate of its victims would come up empty-handed. One month later, the XUAR Emergency Management Bureau issued its regularly published accident report, containing the last official words on the accident to date. A single sentence states that the collapse was triggered by a discharge of mining waste, or slag, into an open pit in violation of the mine's design.

Eighteen deceased miners, left unnamed, appear in the report's statistical table.¹²

EXECUTIVE SUMMARY

The world is increasingly exposed to the mining industry in the Xinjiang Uyghur Autonomous Region (XUAR), with gold and other minerals extracted from the region linked to global supply chains and investment. These minerals, as with other products manufactured or processed in XUAR, are at high risk of being produced through forced labor or in conditions of human rights violations.

Using publicly available mining licenses and corporate data, C4ADS mapped the mining industry in XUAR, connecting mines to their ultimate beneficial owners. While a mining license is typically owned by a company registered in the region, these companies are often subsidiaries of large state-owned corporations, many headquartered outside of XUAR. These massive mining corporations are among the People's Republic of China's (PRC's) most valuable, and frequently have one or more of their member companies publicly listed on the PRC or Hong Kong stock exchanges. An examination of the case of gold extraction in the region provides just one example of not only safety infractions and environmental damage caused by the industry, but also considerable evidence of forced labor and other human rights violations taking place in XUAR mines.

Despite this, the mining industry in the Uyghur region remains entangled with global commodity markets and international finance. In investigating the financial linkages and supply chains that enable crimes against Uyghurs and Turkic peoples, C4ADS found the XUAR gold economy touches global systems through the following pathways.

1. Global Supply Chains: U.S. conflict mineral reporting indicates that hundreds of major U.S. companies like Mattel, Macy's, Tesla, Apple, and NVIDIA are directly or indirectly exposed to suppliers that source gold from companies with XUAR-based mines that exhibit risk indicators of forced labor. This may violate the Uyghur Forced Labor Prevention Act (UFLPA) or Organisation of Economic Co-operation and Development (OECD) responsible sourcing guidelines.
1. Investments: Major asset management firms' index fund portfolios include companies that own mines in XUAR associated with forced labor and human rights violations. This exposes their

clients, including major institutional investors and individuals, to human rights violations in the Uyghur region. In addition, companies with mines in XUAR that exhibit risk indicators of forced labor trade on the Shanghai Gold Exchange, including international members like JPMorgan Chase, UBS, and Standard Chartered, are positioned to profit from the gold as it is held as a store of value to guarantee investments.³

2. Responsible Sourcing Certification Schemes: Major Chinese mining companies with a footprint in XUAR have successfully obtained accreditation by the London Bullion Market Association, conformant status from the Responsible Minerals Initiative, or are members of the World Gold Council. This may encourage global buyers and investors, including those acting outside those fora, to trust the provenance of the gold and conduct purchases or investments that facilitate human rights crimes.^{4 5}

While this report focuses on gold, it is but one of the many globally traded minerals produced by the XUAR mining sector that is entangled with the Chinese government's violent campaign of repression against Turkic peoples. The persistence of these pathways inhibits global efforts to address the human rights violations in the region, particularly the forced labor and associated assimilation campaign carried out in large part by PRC corporate actors. Exposure to these corporate actors via trade or investment connections places numerous global companies at risk of profiting from forced labor. For U.S. importers, this may violate the UFLPA.

Armed with C4ADS' comprehensive mapping of the mining industry in XUAR, corporate buyers, sellers, and users of minerals; institutional and individual investors, and U.S. and international industry regulators, policymakers, and law enforcement all have a decisive role in reducing ongoing capital flows to PRC mining companies that perpetrate and support human rights abuses against Turkic peoples in the Uyghur region.

INTRODUCTION

The Chinese government's genocidal campaign against Uyghurs and Turkic peoples in the Xinjiang Uyghur Autonomous Region (XUAR) affects every facet of work and life in the region. Key components

of the government's actions against Uyghurs include forced labor, extrajudicial internment, mass surveillance, and cultural destruction through compulsory assimilation.⁶ The effects of these crimes are not isolated within the Uyghur region but are linked to global actors through supply chains and financial institutions.⁷ The XUAR government has tasked corporations in the region, including its many mining companies, with carrying out its labor transfer and cultural assimilation programs, implicating them in the government's campaign against Uyghurs.⁸ As the mining industry in the XUAR continues to grow, so too does the threat to global supply chains.

For decades, the Chinese government has prioritized resource extraction in XUAR, which has significant mineral resource endowments. Mining and associated industries accounted for 43% of the regional gross domestic product in 2020, and XUAR produces a considerable amount of the PRC's coal, natural gas, gold, copper, iron, and steel alloying elements, which play a key role in automotive and new energy supply chains.⁹

Despite the significance of XUAR to the Chinese mineral sector and the associated exposure to forced labor and human rights violations, insufficient attention has been paid to this nexus. Initial research has revealed key vulnerabilities in supply chains, yet due diligence and investment practices do not sufficiently assess and act on this risk.¹⁰ A data-driven overview of the structure of the mining industry, including a clear picture of the scale and locations of current and planned mineral extraction in XUAR, will enable global regulators, buyers, and investors to perform adequate due diligence, enforce laws, and meet international standards on human rights and forced labor. This report's case study on gold—a mineral that circulates internationally as a store of value, in jewelry, and in technology—will provide that overview, highlighting direct and indirect corporate complicity in human rights abuses and serving as an example that can be applied to other minerals.

The expansion of mineral extraction in the Uyghur region hinders efforts to eliminate minerals tainted by forced labor from global supply chains. The mining industry in XUAR entangles electronics manufacturing, energy transition technologies, and the global investment industry in human rights violations. However, importers' obligation to analyze their mineral supply chains is not solely a moral one. The Uyghur Forced Labor Prevention Act in the United States prohibits the import of

all products mined or manufactured in XUAR, based on the presumption of the use of forced labor.¹¹ In recent years, there has been an increasing interest among civil society and investors in eliminating forced labor from global supply chains, and governments have responded by producing legislation designed to strengthen corporate due diligence.¹² In addition to some of the stricter due-diligence obligations already in effect related to conflict minerals, including gold, the human rights standards in OECD mineral due diligence guidelines for "high risk areas" are also applicable to the Uyghur region.¹³

Human rights violations and environmental degradation are major issues in the global mining sector, but these issues are particularly urgent in XUAR, given the extreme and state-driven nature of the human rights violations taking place. The general opacity of supply chains within China and the inherent difficulties of tracing global mineral supply chains together pose a serious challenge to companies who want to meet their stated goals on ethical sourcing. However, large-scale analysis of publicly available information can bring this within reach.

DATA OVERVIEW

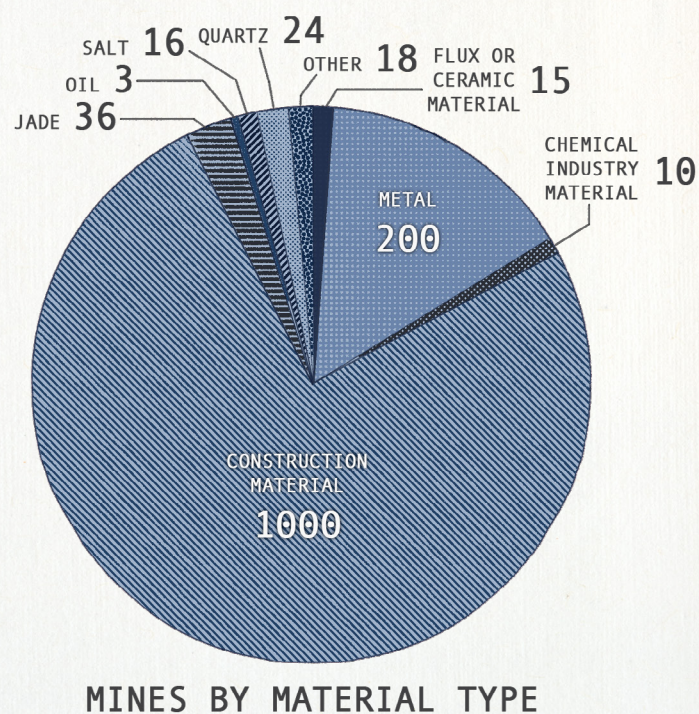
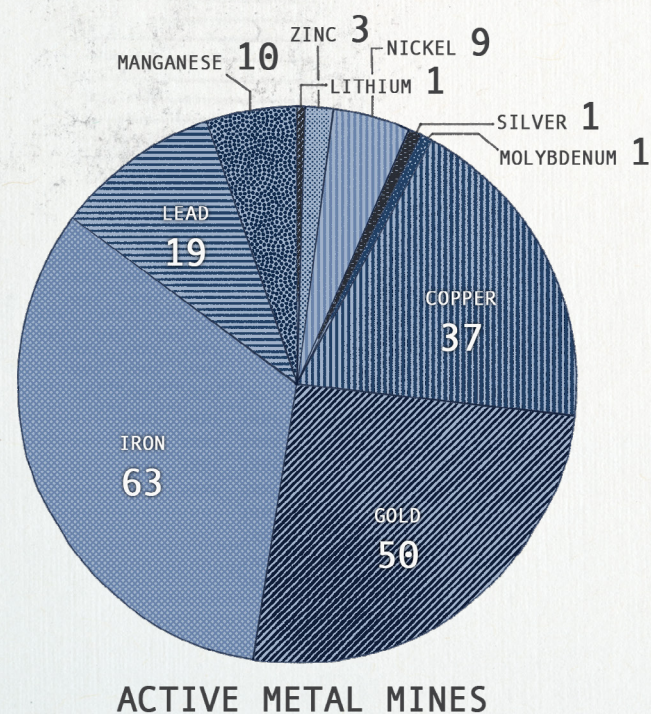
This report leverages mining licenses issued by China's Ministry of Land and Natural Resources to analyze the mining sector in XUAR, providing a clear picture of the minerals extracted in the region.¹⁴ The data contained in mining licenses includes information on corporate ownership, location, and resource type for active and prospecting mines. C4ADS connected this mining license data with publicly available Chinese corporate data, creating a dataset of mines and their ownership, including beneficial ownership.

In February 2023, license data from the Ministry of Land and Natural Resources indicated there were 1,467 active mines and 1,683 prospecting sites in XUAR. These mining rights cover all types of mineral extraction, with 113 minerals represented in the dataset.

LIMITATIONS

While the XUAR mining license dataset developed by C4ADS is a reliable snapshot of mine location and ownership as of early 2023, it will not capture developments in the sector as new mines come online, change owners, or mine licenses expire or are renewed. The dataset does not capture the scale of mineral production in each mine, nor does it include refining facilities, a key link in the mineral supply chain.

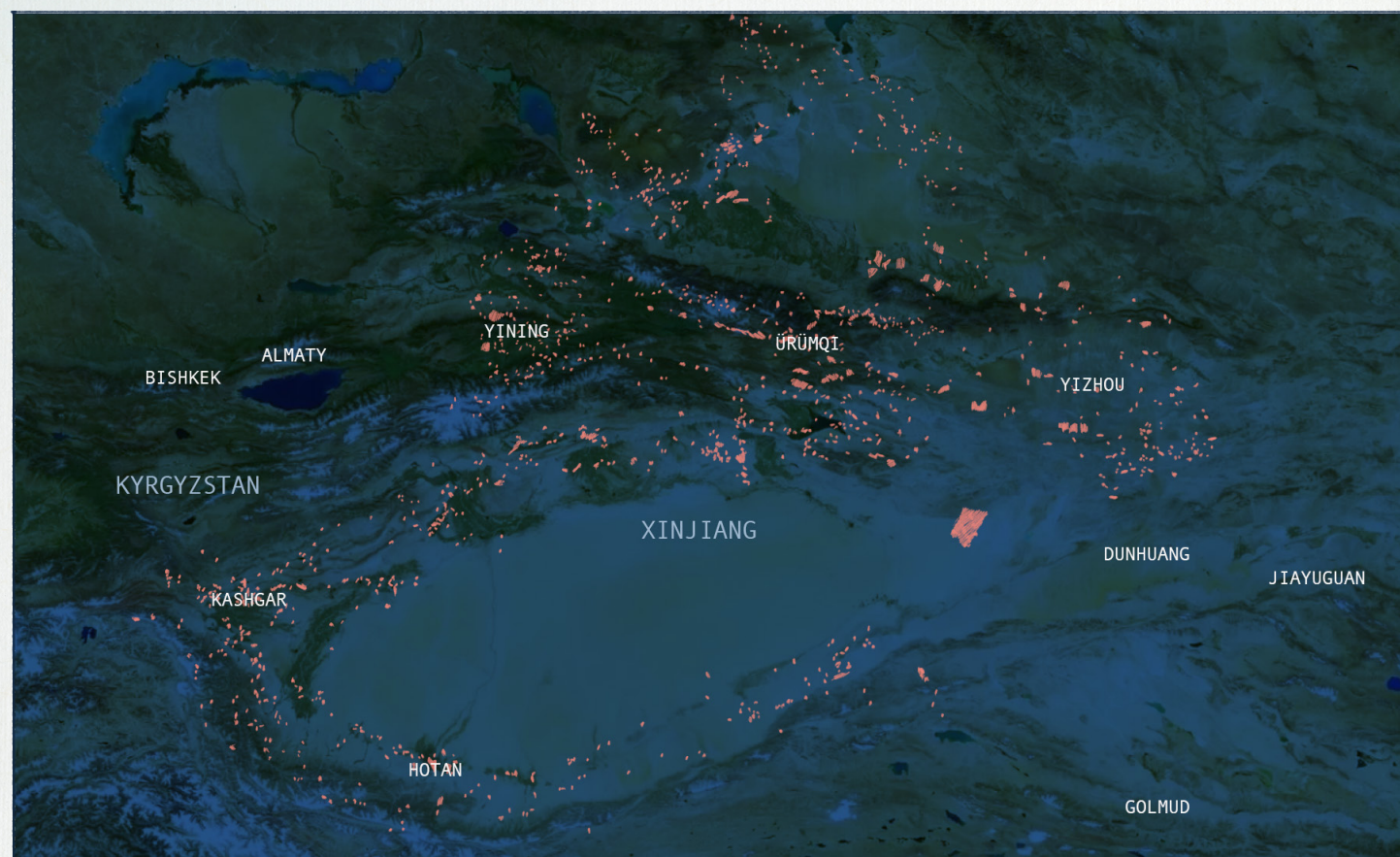
C4ADS uses official corporate records and trade data wherever available to verify corporate holdings and commercial relationships. However, this information represents a snapshot of corporate and trade activity at a given time—records may not be updated regularly, be consistent or wholly accurate, and have the same reporting standards across jurisdictions, among other limitations. In addition, public records do not reveal all details of a company’s operations or relationships between entities. Therefore, C4ADS limits its analytical conclusions to those directly supported by underlying documentation. Unless explicitly stated, the mention of an individual, company, organization, or other entity in this report is not meant to imply the violation of any law or international agreement and should not be construed to so imply.



MINERAL RESOURCES LISTED AS ADVANTAGEOUS BY XUAR GOVERNMENT¹⁵

Mineral		Applications
Beryllium	铍	Aerospace mechanical components, instrumentation, x-ray shielding, electrical insulation
Chromium	铬	Stainless steel, metal plating, catalysts
Coal	煤炭	Energy, coking coal for aluminum and other metals, chemical production
Coal bed methane	煤层气	Natural gas
Cobalt	钴	Lithium-ion batteries, heat-resistant alloys, magnets, catalysts
Copper	铜	Electrical wiring, pipes
Fluorite	萤石	Smelting flux, glass manufacturing
Gold	金	Electronics, jewelry
Iron	铁	Steel manufacturing, construction
Lead	铅	Car batteries, construction, alloys, radiation shielding
Lithium	锂	Lithium-ion batteries
Manganese	锰	Steel and aluminum alloys, lithium-ion batteries
Natural Gas	天然气	Energy, petrochemical production
Nickel	镍	Stainless steel and other alloys, corrosion resistant plating, lithium-ion batteries, magnets
Niobium	铌	Stainless steel and other alloys, superconductors
Oil	石油	Energy, petrochemicals, plastics, synthetic fibers
Potassium Salt	钾盐	Fertilizer
Tantalum	钽	Electronic components, high-strength alloys
Zinc	锌	Galvanizing metals, alloys, zinc compounds



Active mines in XUAR as of 2023¹⁶

MINING INDUSTRY STRUCTURE

Mining licenses and Chinese corporate data show that mining in XUAR is dominated by large companies that own smaller, locally-based subsidiaries that run the mining operations. Many of these companies are state-owned enterprises (SOEs) headquartered inside and outside the region. The region's SOEs include those owned by the XUAR government and those owned by the Xinjiang Production and Construction Corps, a paramilitary corporate conglomerate that forms a parallel government in the region. State-owned companies are likely to align closely with the government's assimilation and labor transfer programs targeted at Uyghurs and other Turkic peoples. Often, these state-owned companies or one or more of their subsidiaries are publicly listed on the Shenzhen, Shanghai, or Hong Kong stock exchanges, which are accessible to both PRC and international investors. Below are publicly listed companies that have active mining operations in the Uyghur region according to the data reviewed for this report.

PUBLICLY LISTED COMPANIES WITH REPORTED XUAR MINING OPERATIONS

Name	Chinese Name	XUAR Mining Subsidiaries	Mines	Reported Major Shareholder or Ultimate Beneficial Owner	Stock Market Symbol of Company or Subsidiary	Stock Exchange
Baiyin Nonferrous Group Co., Ltd.	白银有色集团股份有限公司	Xinjiang Baiyin Mining Development Co., Ltd. 新疆白银矿业开发有限公司	Copper (1)	Gansu government and the CITIC Guoan Group	Baiyin Nonferrous Group Co., Ltd.: SSE: 601212	Shanghai
China Baowu Iron and Steel Group Co., Ltd.	中国宝武钢铁集团有限公司	Xinjiang Bayi Iron and Steel Co., Ltd. (新疆八一钢铁有限公司)	Coal (3) Iron (3)	Central State-Owned Assets Supervision and Administration Commission (SASAC)	Xinjiang Bayi Iron and Steel Co., Ltd.: SSE: 600581	Shanghai
China Daye Nonferrous Metals Mining Co., Ltd.	中国大冶有色金属矿业公司	新疆汇祥永金矿业有限公司 (via Hong Kong subsidiary Hong Kong Huijin Investment International Co., Ltd. 香港汇金投资国际有限公司)	Copper (1)	Daye City SASAC	China Daye Nonferrous Metals Mining Co., Ltd.: 0661.HK	Hong Kong
China Molybdenum Co., Ltd. (CMOC)	洛阳栾川钼业集团股份有限公司	Xinjiang Molybdenum Mining Co., Ltd. 新疆洛钼矿业有限公司	Molybdenum (1)	Hongshang Group, Luoyang Mining Group-Luoyang City SASAC	China Molybdenum: SSE: 60399, 3993.HK	Hong Kong
Jiuquan Iron and Steel Group Co., Ltd.	酒泉钢铁(集团)有限责任公司	Hami Hongsheng Mining Industry Co. Ltd. 哈密宏盛矿业有限责任公司	Iron (1)	Gansu SASAC	Gansu Jiu Steel Group Hongxing Iron & Steel Co., Ltd: SSE: 600307	Shanghai

Lingbao Gold Group Co., Ltd.	灵宝黄金集团股份有限公司	Habahe Huatai Gold Co., Ltd. 哈巴河华泰黄金有限责任公司	Gold (2)	Lingbao City SASAC	Lingbao Gold Group Co., Ltd.: 3330.HK	Hong Kong
Shandong Gold Mining Co., Ltd.	山东黄金矿业股份有限公司	Xinjiang Jinchuan Mining Industry Co., Ltd. (新疆金川矿业股份有限公司) via Hong Kong subsidiary Tianshan Gold Securities	Gold (1)	N/A	Shandong Gold Mining Co., Ltd.: SSE: 600547	Shanghai
Western Mining Co. Ltd.	西部矿业股份有限公司	Xinjiang Ruilun Mining Industry Co., Ltd. (新疆瑞伦矿业有限责任公司) Hami Bolun Mining Co., Ltd. (哈密博伦矿业有限责任公司)	Copper-nickel (1) Iron (1)	Western Mining Group-Qinghai SASAC	Western Mining Co., Ltd.: SSE: 601168	Shanghai
Xinjiang Baodi Mining Co., Ltd.	新疆宝地矿业有限责任公司	Shanshan Baodi Mining Co., Ltd. (鄯善宝地矿业有限责任公司) Yiwu County Baoshan Mining Co., Ltd. (伊吾县宝山矿业有限责任公司) Xinjiang Huaxing Mining Co., Ltd. (新疆华兴矿业有限责任公司) Xinjiang Tianhua Mining Co., Ltd. (新疆天华矿业有限责任公司) Qinghai Hasiatu Mining Co., Ltd. (青海省哈西亚图矿业有限公司)	Iron (4)	XUAR SASAC	Xinjiang Baodi Mining Co., Ltd.: SSE: 601121	Shanghai

Xinjiang Nonferrous Metal Industry Group	新疆有色金属工业(集团)有限责任公司	Xinjiang Xinxin Mining Co., Ltd. (新疆新鑫矿业股份有限公司), Western Region Gold Co., Ltd. (西部黄金股份有限公司)	Copper-nickel (4) Gold (3) Lithium (2) Manganese (2) Vanadium (2)	XUAR SASAC XUAR Department of Finance	Xinjiang Xinxin Mining Co., Ltd.: 3833.HK, Western Region Gold Co., Ltd.: SSE: 601069	Shanghai; Hong Kong
Xinjiang TBEA Group Co., Ltd.	新疆特变电工集团有限公司	TBEA Co., Ltd. (特变电工股份有限公司), Xinjiang TBEA Group Mining Industry Co., Ltd. (新疆特变集团矿业股份有限公司), 特变电工股份有限公司) Xinjiang Joinworld Co., Ltd. (新疆众和股份有限公司)	Coal (1) Quartz (1)	N/A	TBEA Co., Ltd.: SSE: 600089 Xinjiang Joinworld Co., Ltd.: SSE: 600888	Shanghai

Zhaojin Mining Industry Co., Ltd.	招金矿业股份有限公司	Zhaojin Beijiang Mining Co., Ltd. 招金北疆矿业股份有限公司 Qinghe County Jindu Mining Development Co., Ltd. 青河县金都矿业开发有限公司 Peyziwat County Tonghui Mining Industry Co., Ltd. 伽师县铜辉矿业有限责任公司 Baicheng County Dishui Copper Mine Development Co., Ltd. 拜城县滴水铜矿开发有限责任公司	Copper (2) Gold (4)	Zhaoyuan City SASAC	Zhaojin Mining Industry Co., Ltd.: 1818.HK	Hong Kong
Zijin Mining Group Co., Ltd.	紫金矿业集团股份有限公司	Xinjiang Jinbao Mining Co., Ltd. (新疆金宝矿业有限责任公司) Xinjiang Zijin Zinc Co., Ltd. (新疆紫金锌业有限公司)	Copper (1) Gold (1) Iron (1) Lead-Zinc (1)	Shanghang County Finance Bureau via Minxi Xinghang State-Owned Assets Investment and Operation Co., Ltd.	Zijin Mining Group Co., Ltd.: SSE: 601899, 2899.HK	Shanghai; Hong Kong

EXPANDING MINERAL EXTRACTION IN SOUTHERN XUAR

In recent years, the government has spurred increasing investments in mineral extraction in southern XUAR, expanding the sector beyond its historical concentration in the region's north. This has serious implications for the local population, which is overwhelmingly Uyghur. The growth of mining and associated industries in the south may replicate the pattern of inequality that exists in the north, with Han workers in well-paid technical positions and Uyghurs in lower-paid and often dangerous manual labor positions. An influx of Han capitalizing on emerging industries can exacerbate ethnic inequalities.¹⁷

While there are currently fewer active mines in southern XUAR, a number of large mines are in development. This includes a fluorite mine owned by the Xinjiang Nonferrous Group, which contains 10% of PRC fluorite reserves,¹⁸ and Huoshaoyun, developed by Xinjiang Geology and Minerals Investment Company, which is the largest lead-zinc mine in the PRC.¹⁹

Additionally, southern XUAR is being developed into a center of lithium extraction, as demonstrated by the establishment of multiple mines and processing facilities, including Xinjiang Nonferrous Group's Dahongliutan project in Hotan Prefecture, touted as the world's largest integrated lithium mining and smelting project.²⁰ Other lithium projects in southern XUAR include the development of Lop Nur Lake, the Aktas mine in Hotan, and a large processing facility in Rouqiang Industrial Park in Bayingolin Mongol Autonomous Prefecture.^{21 22 23} The rise of lithium production in XUAR is particularly troubling considering the increasing global demand for electric vehicles and other emergent technologies using lithium batteries.

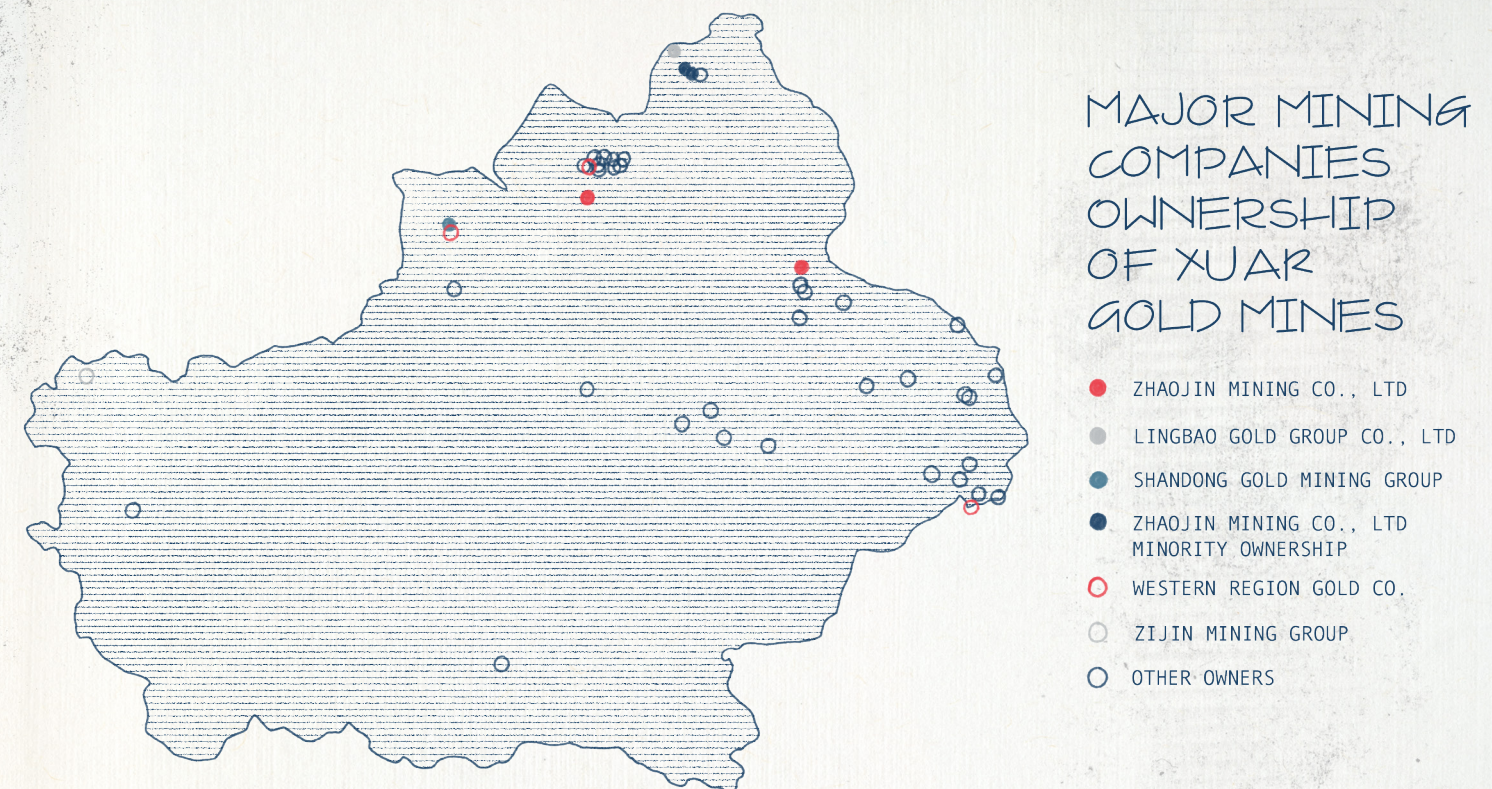
XUAR is the site of a considerable proportion of the PRC's domestic mineral production, and state-directed development of its mining sector means it will continue to expand.²⁴ This has significant implications for global mineral markets. In order to provide a concrete example of the XUAR mining industry's complicity in human rights abuses, as well as its entanglement with global supply chains and capital markets, we turn to the gold sector.

TAINED GOLD FROM XUAR MINES IN THE GLOBAL MARKET

The PRC is the largest producer of gold in the world, a position it has held since 2007. In 2021, XUAR produced over 11 tons, placing it sixth among gold-producing provinces in the PRC.²⁵ This gold enters the market in combination with imported and recycled gold for use by the government and individuals as a store of value or is made into jewelry or components for technology that support personal electronic devices and green energy production and storage. Nevertheless, potential linkages between XUAR gold and global supply chains have received little attention.

Using mining license data, C4ADS identified 303 gold mining licenses in XUAR, comprising 50 active gold mines and 253 prospecting rights. The active gold mine licenses are held in the names of 36 companies; 13 are owned by eight state-owned beneficial owners, revealing a greater degree of concentration. Records indicate that four of the top 10 gold companies in the PRC own gold mines in the Uyghur region, including Shandong Gold Group, the second largest gold company in the PRC, as well as Lingbao Gold Group Company,²⁶ Zhaojin Mining Industry Company, and Zijin Mining Group.²⁷

²⁸ These companies are both state-owned and publicly traded, meaning they can appear in global investors' portfolios.²⁹



As with all goods produced within the Uyghur region, there is a considerable risk the metals mined in XUAR are tainted by forced labor. Corporate and media reporting indicates that several of the companies mentioned above are participating in Uyghur labor transfer and government assimilation objectives in XUAR. Because job placements cannot be freely refused and independent auditing is impossible, participation in these labor transfers amounts to evidence that Uyghur and other Turkic peoples are being forced to perform inherently dangerous work in a sector with a long track record of major accidents and poor enforcement of environmental and safety regulations. The evidence of widespread forced labor in the Uyghur region has been thoroughly documented, resulting in the UN Office of the High Commissioner for Human Rights and the International Labor Organization Committee of Experts issuing reports stating their concerns.³⁰ The following case of Xinjiang Nonferrous Group and its subsidiary Western Region Gold illustrates the toxic convergence of human rights abuses, environmental crime, and lax safety standards in XUAR.

Case Study:

PERVASIVE HUMAN RIGHTS ABUSE, ENVIRONMENTAL ISSUES, AND SAFETY HAZARDS AT WESTERN REGION GOLD

The opening of this report recounts the deaths of 18 miners at the Yili Western Region Gold Mine, owned by Western Region Gold Company. The state-owned Xinjiang Nonferrous Metal Industry Group controls many of the major gold mines in the region via its subsidiary, Western Region Gold Company.³¹ Having mined 2.31 tons in 2021, Western Region Gold is among the top ten Chinese gold producers and is publicly listed on the Shanghai Stock Exchange.^{32 33} The company's looming presence in China's gold and mining sector is particularly concerning given the history of environmental, safety, and human rights issues within its numerous subsidiaries.

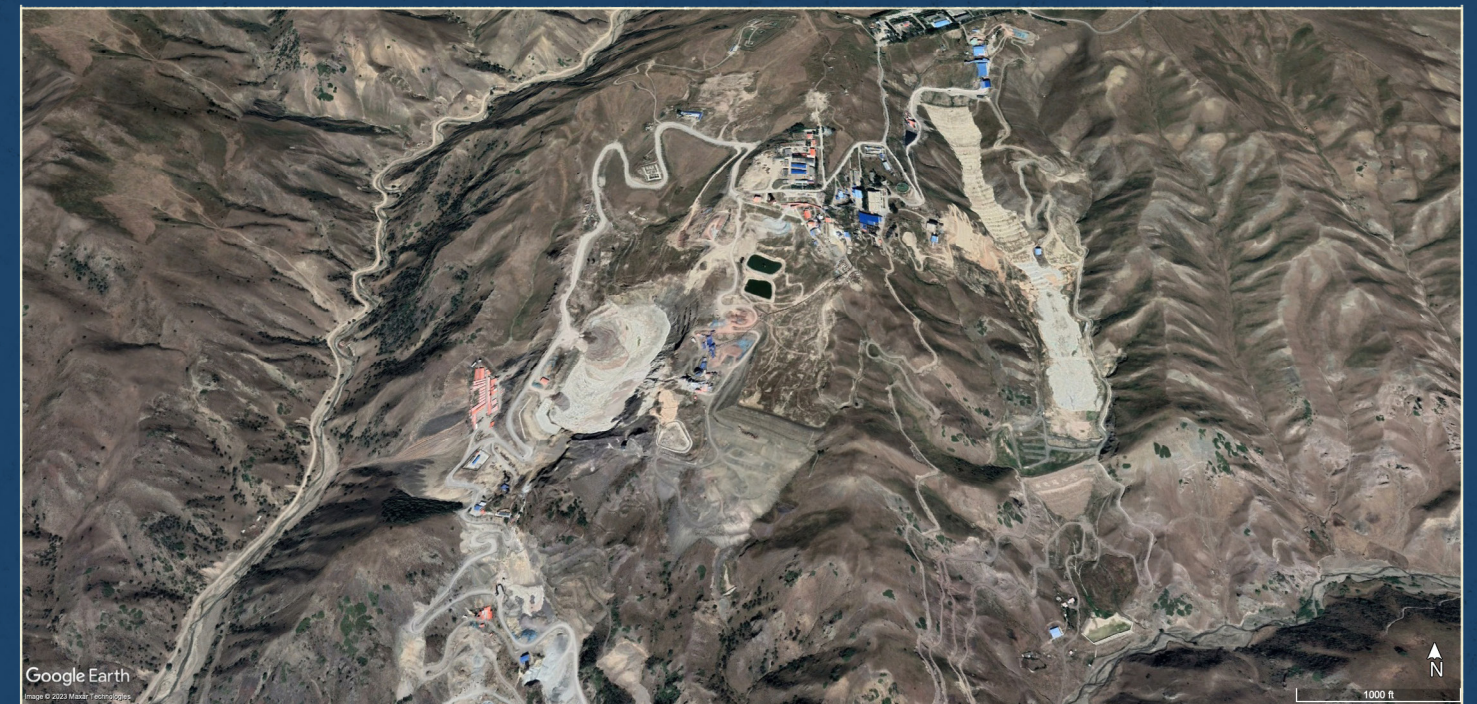
WESTERN REGION GOLD'S CORPORATE NEGLIGENCE: ENVIRONMENTAL AND SAFETY ISSUES

The December 24, 2022, incident at Western Region Gold's mine in Ghulja was one of the deadliest workplace accidents reported in XUAR that year. Eighteen miners were killed when mining waste was reportedly discharged into the mine's open pit in violation of the facility's design, triggering a collapse.



Image of Yili Gold Mine

Immediately after the accident, official media reports described emergency response teams and local officials rushing to the scene, stating that the miners had been trapped underground.³⁴ However, no additional information updating the situation appeared in the media after the first week. The XUAR regional Work Safety Committee stated on December 25 that the accident had exposed shortfalls in safe production in Ghulja County, while XUAR Party Secretary Ma Xingrui urged local governments and departments to “thoroughly study and implement General Secretary Xi Jinping’s important expositions on production safety,” and to “fully understand the extreme importance of doing a good job in safe production from a political perspective.”³⁵ In the following weeks and months, the government did not issue any public statements detailing the cause of the accident or who was accountable.



Satellite image of Yili Gold Mine

The lack of critical information in the media about the cause of the accident and the fate of the miners suggests a level of sensitivity surrounding the incident. The miners' deaths were only revealed in the Emergency Management Bureau's regularly published accident report.³⁶ The report itself is short on details, stating that an illegal release of mining waste into the mine's open pit, which the company purported was for “environmental restoration,” was the precipitating incident.³⁷ In the wake of the accident, the State Mine Safety Supervision Bureau launched a “rectification campaign.”³⁸ The XUAR Emergency Management Bureau's accident report noted that most local divisions failed to report and that supervisory departments tend to issue warnings instead of fines or administrative punishments.³⁹

This reported illegal release of mining waste and its consequences highlights the interplay between safety and environmental regulations and the company's negligence toward both. Western Region Gold has a long record of violations stretching back years, with numerous administrative penalties for safety and environmental infractions. The XUAR Department of Ecology and Environment fined it in 2017 and 2020 for improper waste disposal, failure to properly report environmental incidents, disposal of cyanide and arsenic waste into its tailings pond, failure to properly monitor heavy metal pollution, illegal mining in prospecting areas, and an increase in processed-earth waste, or tailings, without prior approval.^{40 41 42 43} These environmental issues disproportionately affect workers and surrounding communities in XUAR, compounding the sector's safety and human rights issues.



Surplus laborers transferred to the Xinjiang Nonferrous Group in 2020.



Flag raising ceremony at Western Region Gold Yili Co., Ltd., 2017.

Western Region Gold's mines have been cited for more than one deadly incident. Between 2016 and 2018, the company and its subsidiaries were penalized eight times for safety violations, seven of which involved accidents resulting in death.^{44 45} In 2021, Western Region Gold received three fines from the local Emergency Management Bureau for not adequately adhering to worker safety regulations.⁴⁶

Government documentation makes it clear that serious issues with work safety exist in the mining industry. While this remains true across the PRC and worldwide, it is particularly troubling in the context of XUAR. Publicly available information about the accident does not reveal details about the victims' ethnicities. Concerns about worker safety are particularly critical when it cannot be confirmed if the victims were forced to perform the work in question.

PARTICIPATION IN HUMAN RIGHTS ABUSES

Corporations in the PRC are expected to be closely involved in carrying out government objectives. Like other state-owned enterprises in the region, the Xinjiang Nonferrous Group's sprawling network of resource extraction companies is closely involved in implementing the XUAR government's Uyghur labor transfer and forced assimilation policies. Local media reports, along with Western Region Gold's annual reports, describe the company's participation in labor transfer programs, a major risk indicator for forced labor. In early 2020, Western Region Gold's Hatu and Hami gold mines reportedly received labor transfers from southern XUAR, and 25 workers were reportedly sent to Ili Gold Mining Co., Ltd. from Akto and Keriya counties in southwestern XUAR.^{47 48} The government intends labor transfer positions to serve as a method of assimilating Turkic peoples into Han culture, transforming them into "modern" industrial workers. Because the labor transfer program is taking place in the context of a mass detention campaign and the government perceives resistance as a sign of extremism, such positions cannot be freely refused.⁴⁹

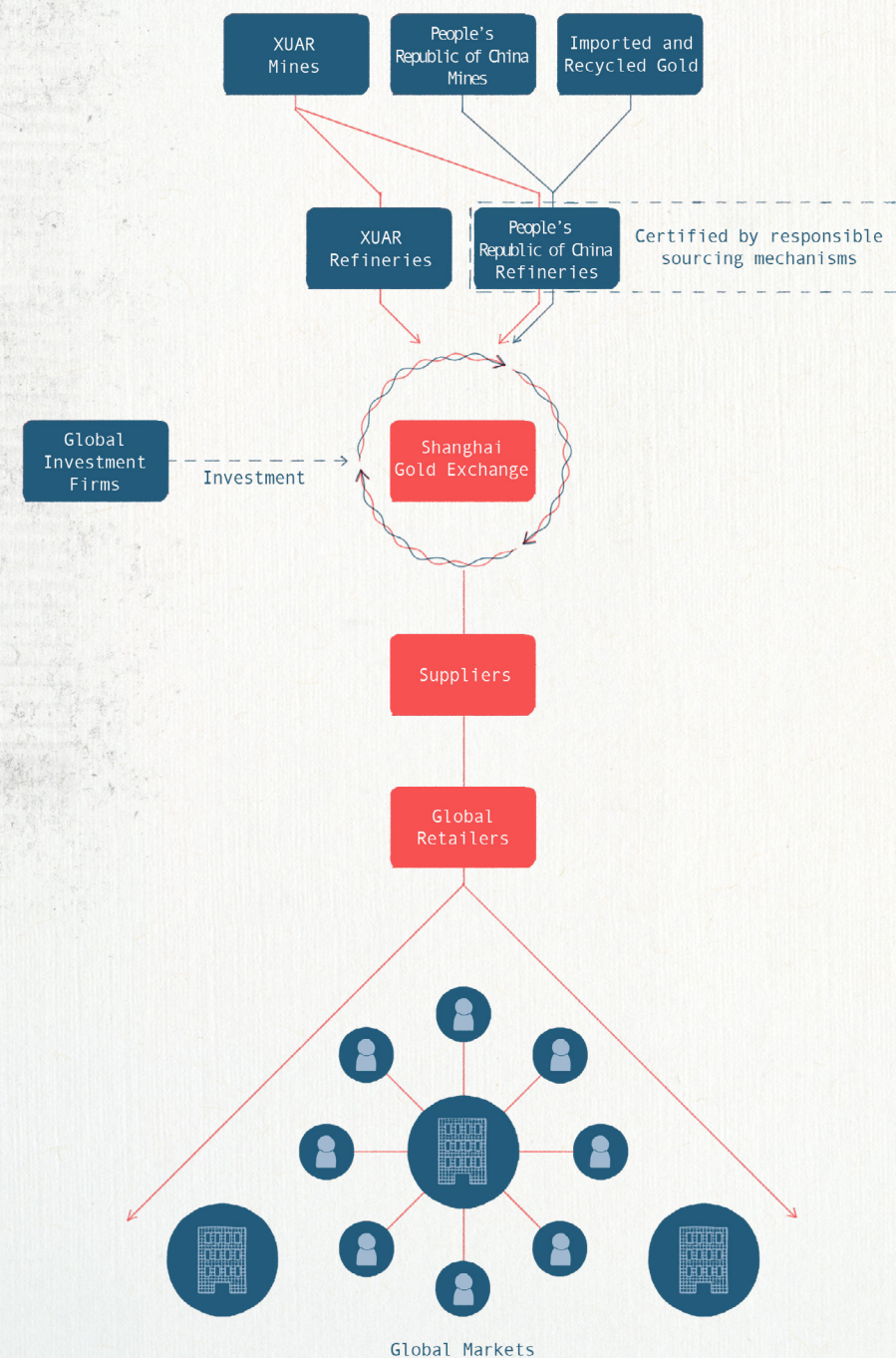
Xinjiang Nonferrous Group's own reporting describes the training conditions of Uyghur workers transferred to its subsidiaries, including patriotism, gratitude to the Communist Party of China, other forms of ideological indoctrination, and fines for failing to adhere to rules.⁵⁰ Western Region Gold's social media describes policies designed to undermine Uyghur identity, enforcing a regimen of programs that keeps workers closely monitored. Social media posts describe "psychological counseling" provided to transferred laborers, while other news reports describe military-style training for transferred workers that focuses on Mandarin, politics, and patriotism.^{51 52} Xinjiang Nonferrous Group and its subsidiaries, including Western Region Gold, have been reported to participate in the "*fanghuiju*" program, in which employees are sent to villages to monitor Uyghurs in their homes, administer ideological training, and help identify "surplus labor for transfer."⁵³

The overwhelming evidence of systemic human rights abuse, environmental crimes, and lax health and safety standards at Western Region Gold reveal a deadly combination of corporate negligence and complicity in the government's campaign against Uyghurs. This behavior is not unique to this company, and, as we demonstrate below, it has significant implications for global supply chains and investors.

GOLD, HUMAN RIGHTS, AND GLOBAL SUPPLY CHAINS

The forced labor, human rights, environmental, and safety costs of gold mining in XUAR extend beyond the region's borders. Although the Chinese government heavily regulates direct exports of gold, global markets remain exposed to gold through the following supply chains and financial products.⁵⁴

PEOPLE'S REPUBLIC OF CHINA DOMESTIC GOLD SUPPLY CHAIN



GLOBAL SUPPLY CHAINS

Documentation on conflict-risk minerals provides additional insight into gold supply chains and indicates gold from XUAR may be entering the United States and global supply chains of major retailers. U.S. legislation requires companies that use gold in their products to identify gold refineries in their supply chains. Conflict Minerals Report filings, as reported to the U.S. Securities and Exchange Commission (SEC) show the extent to which U.S. retailers' supply chains are exposed to gold from refineries owned by companies with a footprint in XUAR.⁵⁵ As discussed above, Zijin Mining, Shandong Gold Group, Zhaojin Gold Group, and Lingbao Gold Group all own gold mines in XUAR and refineries where they process their gold.⁵⁶

What's more, these companies are complicit in the same XUAR government policies as Western Region Gold, from forced labor to forced assimilation. All three companies have received labor transfers, which are at high risk for forced labor, given workers' inability to refuse positions and the absence of independent auditing. Further, the companies also support the XUAR government's forced assimilation practices. For example, a media report lists Shandong Gold's subsidiary Jinchuan Mining among the companies accepting surplus labor from poor households.⁵⁷ Likewise, official media reports indicate that Zijin's mines have been the site of labor transfers, with one report stating it had "solved the employment" of up to 800 workers and that Zhaojin Mining has participated in labor transfers of Kazakh workers from poor households.⁵⁸ ⁵⁹ Both companies are paired with local villages where they carry out assimilative programs; Zhaojin boasts its "strong political and ideological work" conducted both inside and outside the company, while the government has recognized Zijin for programs associated with assimilation initiatives.⁶⁰ ⁶¹ Despite this, per SEC reporting, numerous U.S. companies reported supply chain exposure to these and other companies' refineries in 2022.

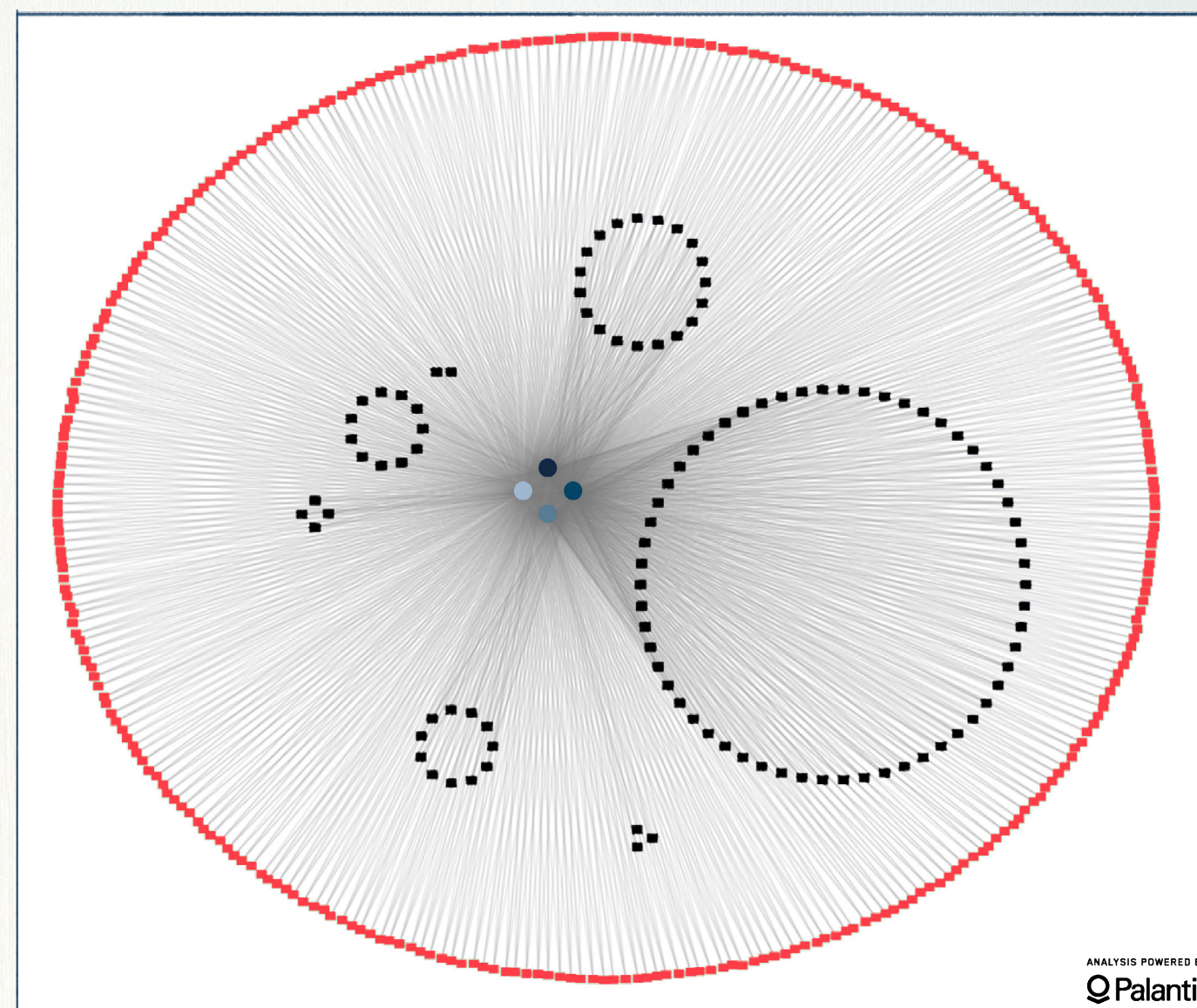
- Zijin Mining: 397 companies reported having supply chain exposure to Zijin Mining's gold refinery, including Mattel, Macy's, Nordstrom, Starbucks, Home Depot, Apple, NVIDIA, and Tesla.⁶²
- Shandong Gold: 399 companies reported having supply chain exposure to Shandong Gold, including Express, American Eagle, Sony, and Amazon.⁶³

- Zhaojin Gold: 409 companies reported having supply chain exposure to Zhaojin Gold including T-Mobile, General Motors, Hasbro, and Columbia Sportswear.⁶⁴
- Lingbao Gold: 277 companies reported having supply chain exposure to Lingbao Gold, including Ford, Medtronic, Dolby, Nokia, Best Buy, and Kohl's.⁶⁵

The extent to which any given company is selling XUAR gold into the supply chains of these global companies is unclear due to the multiple levels of suppliers between refineries and end users. U.S. companies submit forms to the SEC identifying potential exposure down to the refinery level. These public forms contain standardized language stating that gold from the listed refineries may or may not be in their supply chains, and there may be additional refineries in their supply chains they have not yet identified. However, the risk of exposure to XUAR gold for any company sourcing from China is obvious, particularly given the scale of the XUAR-linked gold refineries.

There is a moral, legal, and regulatory need for companies to conduct better due diligence to ensure they are not buying XUAR gold or other minerals. The Uyghur Forced Labor Prevention Act (UFLPA) bans goods from the Uyghur region from entering the United States unless there is proof they were not produced with forced labor, an impossibility given restricted access to XUAR. Other regulations or standards may also apply. For example, the XUAR may be understood as meeting the criteria for a "high risk area" laid out in the OECD Responsible Sourcing Guidelines for Minerals, including gold, since it is a jurisdiction where widespread human rights abuses occur.⁶⁶

WESTERN COMPANY CONNECTIONS TO XUAR REFINERIES



- ZHAOJIN GOLD
- ZIJIN MINING
- LINGBAO GOLD
- SHANDONG GOLD
- COMPANIES WITH CONNECTIONS TO ALL 4 REFINERIES
- COMPANIES WITH CONNECTIONS TO 1-3 REFINERIES

WESTERN COMPANIES LINKED TO XUAR GOLD



INVESTMENTS

While goods produced in the Uyghur region are prohibited from entering U.S. markets, investment in companies registered in or manufacturing in the Uyghur region is not. Many Chinese mining companies with mines in XUAR are publicly traded, meaning that international investors may be unwittingly putting their money into companies complicit in the repression and exploitation of the Uyghur region through investment products like index funds.

Despite years of reporting on the human rights crisis taking place in the Uyghur region and the complicity of corporations in these abuses, XUAR-headquartered companies, including companies with clear evidence of carrying out human rights violations, still appear in the portfolios of some index funds. This includes mining companies like Western Region Gold, highlighted above, which Vanguard, State Street Global Advisors, Blackstone, and Dimensional Fund Advisors offered in their index funds between July 2022 and July 2023.⁶⁷ Its sister company, Xinjiang Xinxin Mining, appears in filings from the same 12-month period for index funds offered by State Street Global Advisors, American Century, John Hancock, and Dimensional Fund Advisors.⁶⁸ Xinjiang Joinworld and Xinjiang Zhongtai Chemical Co., Ltd., which owns their coal mines, as well as Xinjiang Tianshan Cement Co. Ltd., which mines construction material, have also appeared in the holdings of numerous funds.⁶⁹

Chinese mining companies headquartered outside XUAR with mines in the Uyghur region are among China's most valuable companies, and many of the most popular index fund providers like Fidelity and Vanguard include them or have included them in their China or international and emerging market funds. Once again, using the examples of Zijin Mining, Shandong Gold, and Zhaojin Mining—all of which have mines in XUAR and clear risk indicators for forced labor or forced assimilation—SEC filings indicate that as of 2022, these companies have all been included in various investment funds offered by Vanguard, Fidelity, Blackstone, WisdomTree, USAA, JPMorgan Chase, and many others.⁷⁰ Other mining companies with a presence in the Uyghur region frequently appear in index funds, including China Molybdenum (CMOC), Western Mining, Baiyin Nonferrous Group, and Daye Nonferrous Metal Mining.⁷¹ Retirement funds like Calpers and BCI list Zijin Mining, Shandong Gold, and CMOC among its investments in 2022.⁷²













Investors who wish to avoid placing their money with human rights violators in the Uyghur region should carefully examine the corporations in investment fund portfolios. Problematic companies are not limited to those headquartered in XUAR but also include those with subsidiaries or mines in the region, as any company with mines in the Uyghur region is at high risk of being complicit with the government's assimilative efforts and labor transfer programs. Global investment firms should be aware that although Chinese companies with a footprint in XUAR increasingly seek to project an image of corporate responsibility to investors, these companies still fall far short of global standards on transparency and workers' rights.⁷³

Gold itself is a major investment product traded through gold exchanges. Global financial institutions should be aware of XUAR as a high-risk area and take action to avoid trading gold produced by high-risk companies. For example, companies like Western Region Gold and other gold mining companies with XUAR mines sell their gold to the Shanghai Gold Exchange, meaning international companies participating in the exchange could profit from its sale or trade. Shanghai Gold Exchanges' International Board Members include UOB, JPMorgan Chase, BNP Paribas, Australia and New Zealand Banking Group, HSBC, MUFG, Standard Chartered, UBS, and Sberbank.⁷⁴ While these members are not permitted to export gold, they are permitted to trade on the exchange's main board.⁷⁵ The XUAR government—the main perpetrator of Uyghur repression in the region—is one of six provincial governments listed as strategic partners for the exchange to help gold manufacturers develop and circulate their products domestically and internationally.⁷⁶ ⁷⁷ International companies should take care not to trade XUAR gold if participating in the Shanghai Gold Exchange.

RESPONSIBLE SOURCING CERTIFICATION SCHEMES

Amid an increased push for improved human rights standards in mineral supply chains, many global businesses using gold or other minerals in their products rely on certification schemes and third-party auditing processes to identify trustworthy suppliers.⁷⁸ These include industry standards like those developed by the London Bullion Market Association (LBMA), the Responsible Minerals Initiative (RMI), and the World Gold Council, informed by current OECD guidance. These bodies list gold refiners owned by companies with a footprint in the Uyghur region as conforming to their social and environmental standards, creating a permissive environment that facilitates the crimes such initiatives are meant to obstruct. Consequently, downstream companies that rely on these assessments are more likely to be exposed to complicity in human rights abuses.

Major accrediting organizations such as the LBMA, RMI, and World Gold Council have accredited or recognized refiners owned by companies complicit with human rights violations in XUAR. The London bullion market is the largest gold trading institution in the world and is managed by the LBMA and regulated by the Bank of England.⁷⁹ To be added to the LBMA's Good Delivery Lists—lists of LBMA-accredited refiners—companies must adhere to a mandatory responsible sourcing program designed to counter human rights abuses in the global gold mining industry.⁸⁰ ⁸¹ However, the LBMA has accredited refineries owned by companies that own mines in XUAR, including Shandong Gold Mining Co., Ltd., Zhaojin Mining Industry Co., Ltd., and Zijin Mining Group.⁸² The RMI also recognizes these companies' accreditations.⁸³

As discussed throughout this report, media and corporate reporting indicates that these mining companies are complicit in forced labor and forced assimilation policies in XUAR.⁸⁴ Despite this, they are members of the World Gold Council, the most prominent gold industry organization, where they may have had an opportunity to play a role in developing its Responsible Gold Mining Principles.⁸⁵ These accreditations and memberships open the door for companies complicit in human rights abuses to engage in these institutions and distribute XUAR-origin minerals, but just as importantly, they lend credibility that may enable the companies' global activities, whether they are conducted through those institutions or not.

The World Gold Council, LBMA, and RMI's accreditation and recognition of companies operating in XUAR indicates their due diligence processes may be insufficient but also points to a larger failure in policy and governance. The OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Afflicted and High-Risk Areas is the basis of much of the global effort to improve human rights standards in mineral supply chains, including accreditation programs like those described above.⁸⁶ The implementation of the guidance has tended to focus on conflict-affected regions in Africa, despite its global applicability, and has mainly taken the form of corporate auditing programs. This system cannot address human rights abuses committed by companies that have the backing of a state actor, as is happening in the Uyghur region. Companies, accreditors, and regulators alike have fostered a permissive environment for companies participating in or facilitating forced labor and human rights violations by failing to recognize the Uyghur region as meeting the definition of a high-risk area due to its severe and widespread human rights abuses.

CONCLUSION

The XUAR government has been carrying out large-scale human rights abuses that constitute violations of international law, including arbitrary detention, forced sterilization, and destruction of language and cultural heritage. Most relevant to global supply chains is the crime of forced labor, and there is considerable evidence that forced labor is taking place in XUAR mines alongside a campaign of indoctrination aimed at eliminating Uyghur identity.

The production, sale, and use of minerals is lucrative, but it has high environmental, safety, and human rights costs, particularly in the Uyghur region. Using gold as an example, we demonstrate that not only is there evidence of systemic human rights violations taking place in XUAR gold mines, but global companies and institutions, including retailers, financial institutions, and metals exchanges, are implicated in the sale of potentially tainted gold. This may be in contravention of legislation like the Uyghur Forced Labor Prevention Act in the United States and global standards like the OECD's responsible mineral sourcing guidelines, in addition to commercial standards of responsible sourcing, due diligence, and socially responsible investing.⁸⁷

Gold is only one of the many minerals being extracted from the Uyghur region. Global supply chains and investment are tied to a wide range of minerals being mined in XUAR, including copper, steel inputs, and silica. This, in turn, implicates almost every modern industry worldwide in human rights abuses against the Uyghurs and Turkic peoples. The urgency of this problem will only increase as mining in the region continues to expand. It is the responsibility of global governments and the private sector, including buyers and investors, to scrutinize their linkages to XUAR mining companies and their products and eliminate these connections to forced labor and human rights abuse. While this is a daunting task, publicly available data like the compilation of XUAR mine and corporate data presented by C4ADS will provide a valuable tool for stakeholders in their fight against repression.

In the face of extreme human rights violations against Turkic peoples in XUAR, it is a shared global responsibility to act against repression. Considering the findings presented here, C4ADS recommends the following:

THE U.S. PRESIDENT

The President of the United States should expand the scope of his previous ban on investments in companies that promote surveillance in XUAR by banning investments in companies complicit in human rights abuses in XUAR, as identified through the UFLPA entities list.^{88 89} To address the dynamics of industrial human rights abuse at large, the White House could expand the ban to include investments in any “covered industry” operating in a “covered region.” In addition to mining, “covered industries” would include industries presenting forced labor risk factors, including construction, manufacturing, agriculture, and textiles.⁹⁰ “Covered regions” would consist of XUAR and any other jurisdiction in which the president determines crimes against humanity are taking place. The president may effect this ban by executive order to establish a licensing policy authorizing transactions with entities operating in covered industries only when the entity can prove—with clear and convincing evidence—that they do not use forced labor directly or indirectly.

U.S. ENFORCEMENT BODIES

In accordance with the Uyghur Forced Labor Prevention Act, U.S. Customs and Border Protection should investigate gold and other mineral supply chains linked to XUAR and detain goods found to contain minerals from the region.

The Department of Homeland Security’s interagency Forced Labor Enforcement Task Force should place Xinjiang Nonferrous Metal Industry Group and its subsidiaries, including Western Region Gold and other mining companies participating in labor transfer programs in XUAR, on the UFLPA Entity List.

To protect investors from potential legal and financial risks associated with covered industries’ exposure to sanctions or boycotts, the Securities and Exchange Commission should regulate additional public reporting requirements for issuers of securities.

- First, issuers of securities must disclose any investments in a “covered industry” in a “covered region” as defined above. Second, the issuer must disclose any beneficial ownership interest in a covered industry operating in a covered region, regardless of any other provisions in the Corporate Transparency Act. Third, the commission should establish a safe harbor for managers of investments, including pension funds, that choose to divest from an issuer with investments in a covered industry operating in a covered region or whose beneficial owners include covered industries operating in a covered region.
- Additionally, the commission should extend the disclosure requirements of section 13 of the Securities and Exchange Act of 1934, as prescribed by sections 1502 through 1504 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, to minerals extracted in covered regions. These increased disclosure requirements would allow prospective investors to perform more comprehensive risk assessments before engaging a covered industry in a covered region.

EUROPEAN UNION

European Union policymakers should add XUAR to the EU's Conflict-Affected and High-Risk Areas list to ensure that corporations adhere to its Conflict Minerals Regulation and consider XUAR a high-risk region when sourcing gold and other conflict minerals. EU Member State authorities should also flag XUAR mines as high risk when reviewing corporate due diligence reports.

EU policymakers should push corporations to adhere to the mineral provisions in its Corporate Sustainability Due Diligence Directive and ensure that due diligence standards are fully applied to mineral sourcing from China.

EU policymakers should also ensure that the upcoming forced labor regulation pushes importers to address the issue of widespread forced labor in the Uyghur region, including in mineral supply chains.

PRIVATE SECTOR

Both the private sector and governments should recognize that XUAR meets the definition of a "high-risk area" under Article 2 (f) of the OECD Responsible Mineral Supply Chains standard as an area experiencing "widespread and systematic violations of international law, including human rights abuses," and treat minerals produced in the region accordingly.⁹¹

Companies with mineral supply chain ties to China should investigate the ultimate source of those materials and stop procuring from companies with mines in XUAR or from companies that source from XUAR to ensure they meet ethical sourcing standards and adhere to the requirements of the UFLPA.

Individual and institutional investors should divest from companies that have mines in or procure minerals from XUAR, and financial firms should remove such companies from their index funds or other products.

ACCREDITING BODIES

Global metals exchanges should not accredit mining companies with a footprint in XUAR, as they do not meet minimum human rights standards. Members of metals exchanges should ensure such changes occur and strengthen due diligence on the minerals they trade or buy from such platforms.

Responsible sourcing programs, such as the Responsible Mineral Initiative, and member programs, such as the World Gold Council, should not accredit companies with mines in the Uyghur region.

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