

# PRODUCTS MADE WITH FORCED LABOR IN THE UYGHUR REGION

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## Introduction

In the last ten years, the government of the People's Republic of China (PRC) has deliberately encouraged the expansion of mining, farming, processing, and manufacturing in the Uyghur Region. Due to the pervasiveness of state-sponsored labor transfer programs, this means that Uyghur forced labor makes its way into the food we eat, the computers we work on, the toys we play with, and the clothes we wear. Uyghur forced labor is present in a range of commercial sectors at every step of the production process from the mining of raw materials to the manufacturing of finished consumer goods.

The Uyghur Region has long been the source of much of the world's cotton and tomato paste. Since 2015, the solar-grade polysilicon industry has also rapidly expanded in the region. Investigations have confirmed pervasive connections to forced labor in these three industries. They were among the first to be investigated, and they were also the first to be named as priority sectors under the [U.S. Uyghur Forced Labor Prevention Act](#) (UFLPA).

It is no coincidence that these were the earliest industries to be investigated and prioritized by the U.S. government. In an effort to capitalize on the region's resources and dominate the international market in the **textile/apparel**, **agricultural**, and **renewable energy** sectors, the Chinese government has placed an explicit emphasis on these industries' development in the Uyghur Region. However, state-sponsored forced labor in the Uyghur Region affects industries far beyond these three. The "[Made in China 2025](#)" strategy and the [13th](#) and [14th](#) Five-year Plans for National Economic and Social Development of the Xinjiang Uyghur Autonomous Region have encouraged rapid raw materials mining/processing and industrial growth in the XUAR. China has encouraged the

## Key Points

- The Chinese government has deliberately invested vast resources, time, and energy into increasing mining, farming, processing, and manufacturing capacity in the Uyghur Region.
- Uyghur forced labor tainted products are not limited to the most commonly discussed industries (cotton, tomatoes, and polysilicon) but include a vast array of agricultural, raw materials, and manufacturing industries.
- Commonalities across industries operating from the Uyghur region include: (i) rapid expansion to occupy a significant share of national and global markets; (ii) incentives and subsidies for corporate relocation; (iii) artificially deflated cost of production due to low coal-based energy costs, lack of environmental regulation, and forced labor.
- Investigations of products made in the Uyghur Region nearly invariably result in finding evidence of the use of forced labor.
- The most environmentally damaging and energy-consuming industrial processes are concentrated in the extraordinarily repressive environment of the Uyghur Region.

*The third in a series of briefs about forced labor in the Uyghur Region, this brief explores the vast array of products farmed, mined, processed, or manufactured with forced labor in the Uyghur Region.*

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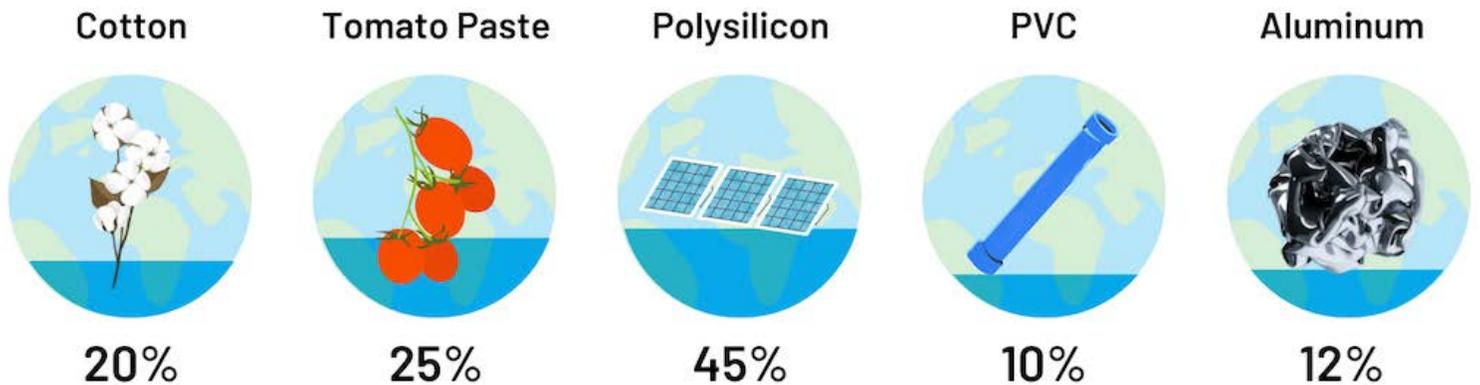
# Products Made with Uyghur Forced Labor

Across media, academic, and government reports, the following products have been alleged to be sourced from the Uyghur Region:

- Metallurgical grade silicon and other silicates
- Polysilicon and polysilicon ingots
- Cotton (including cotton seed, cotton oil, cotton lint, etc.)
- Fabric, apparel and shoes (including those made of cotton, wool, cashmere, leather and synthetic materials such as polyester and spandex/elastane, or viscose)
- Tomatoes and tomato paste
- Marigolds
- Peppers, capsicum, paprika, and other spices
- Walnuts
- Grapes
- Dates
- Food additives
- Supplements (including lutein)
- Traditional Chinese medicines
- Spices
- Food additives and dyes
- Electronics
- Magnesium fertilizer
- Magnesium alloys
- Aluminum alloys
- Chemicals and plastics
- Polyvinyl chloride (PVC)
- Coal
- Personal protective equipment (or PPE, including masks and equipment)
- Lead-acid and lithium-ion batteries
- Vermiculite
- Artificial hair
- Railroad/train parts
- Pharmaceuticals
- Furniture
- Home appliances
- Automotive parts

*This list is by no means exhaustive, and should not be treated as such.*

## SHARE OF TOTAL GLOBAL PRODUCTION ORIGINATING IN XINJIANG



development of **copper** and **nickel** mining, **steel** smelting, **aluminum** processing, **PVC** and **chemicals** production, **renewable energy materials** manufacturing, **automotive parts** manufacturing, and many other industries that affect international supply chains. Products such as food additives, agricultural products like dates and walnuts, and batteries are also increasingly being made in the Uyghur Region. And some products, like consumer electronics and apparel, have been made in other parts of China by the hands of Uyghurs forced to work thousands of miles away from their home province.

The U.S. government has banned products from being imported if they are made “in whole or in part” in the Uyghur Region or in any part of China if they were part of a government labor transfer program. Under the US-Mexico-Canada agreement (USMCA), Canada and Mexico are aligning their forced labor policies with the US’s, though they have not been enforced to date. The EU is developing human rights due diligence and forced labor product import bans that may also significantly restrict the import of goods made in the Uyghur Region.

With so many products affected, it may be difficult to identify which products pose the highest risk. But identifying exposure to Uyghur forced labor is urgent. Complex supply chains may be unknowingly tainted by forced labor, posing serious reputational, legal, and financial risks to international companies and making it extremely challenging for consumers and procurers to make ethical purchasing choices. **This means that serious scrutiny needs to be paid to all products that could have any input from China to ensure a supply chain free of Uyghur forced labor.**

Designed to assist companies and others in identifying potential exposures in supply chains, this brief provides a **non-exhaustive review** of some sectors that have been most significantly affected by forced labor.

## Agricultural Products

### COTTON

The [first evidence of cotton](#) growing in western China may date back as early as the first century BC, and cotton has been an important industry for centuries. It was most deliberately developed in the 1950s, when the newly formed PRC government created the [Xinjiang Production and Construction Corps](#) (XPCC) and named as one of its primary objectives the development of the region’s cotton industry. The XPCC currently produces cotton using [prison labor](#) and [conscripted labor of unincarcerated citizens](#) alike. There is a long history of state conscription of workers during the cotton harvesting season in the Uyghur Region. The [hashar](#) system is a state-run conscripted labor program that has been forcing children as young as [elementary school age](#) as well as [adults](#) to pick cotton during harvest seasons.

Today, [perhaps as much as 90% of China’s cotton comes from the Uyghur Region](#), according to the U.S. Department of Agriculture. There is significant and compelling [evidence](#) including first-person testimony that documents the continued use of forced labor to harvest and process cotton in the region. Most of [XUAR’s prisoner population](#) labors in the agricultural sector, including in cotton planting, harvesting, and ginning. Private and state-owned enterprises often locate their factories within the walls of the prisons.

China emphasizes its [rapid mechanization](#) of cotton production to suggest that the industry does not rely on forced labor. While there are many aspects of the cotton growing process that can be mechanized, harvesting remains challenging to fully mechanize. Most cotton is grown in the southern XUAR where it is not mechanized, and local people continue to be [forced to participate in cotton production](#). Furthermore, there is evidence to suggest that those who have been rendered unemployed by the mechanization process are [made vulnerable](#) to coercive labor transfers to textile or other factories. The result is that the unmechanized cotton segment remains rife with forced labor, while the areas that are mechanized also increase the likelihood of forced labor.

Forced labor in the cotton industry is the result of several intertwined developments. **An expansion of the textile industry, resultant increased demand for labor, coercive land transfers, and low mechanization in the**

**southern XUAR have resulted in significantly increased vulnerability of minoritized citizens of the Uyghur Region to the regional government’s forced labor regime.**

Despite significant awareness of forced labor in cotton production in China and prohibitions on its import to the U.S., [isotopic testing](#) recently showed that 16% of the sample of cotton-based apparel for sale in the U.S. tested positive for Xinjiang cotton.

## TOMATOES

Tomatoes are the [second largest](#) agricultural product from the XUAR. The region accounts for **70% of China’s tomatoes and 90% of China’s tomato paste production** for export. The tomato industry is dominated by the XPCC. Two of the largest [XPCC-owned producers](#) of tomatoes and tomato-based products, Xinjiang Guannong Fruit & Antler Co., Ltd. and Chalkis Health Industry Co., Ltd., are actively participating in a number of coercive state-sponsored labor programs.

For example, [Xinjiang Guannong](#) has participated in the [“relocat\[ion\] of surplus laborers”](#) through an [“organized transfer of employment.”](#) both euphemisms for the government’s forced labor program. Chalkis Health Industry Co., Ltd. is also an active participant in state-sponsored labor transfer programs and other [programs designed to assimilate](#) Uyghurs and other Turkic people of the region.

Chinese corporations held by the XPCC that are involved in the production of tomato paste sell their goods under various brands, including several that are very popular in [West Africa](#) and others that are misleadingly [labeled as originating from Italy](#).

## DATES

Red dates are the third largest agricultural export from the XUAR. [XUAR dates](#) originate overwhelmingly from XPCC (also known as the Bingtuan) farms, which grow over 50% of XUAR dates. The [XPCC’s First Division](#), which has been linked to [prison labor programs](#) in multiple sectors, was responsible for 44% of XPCC fruit production in 2018. Xinjiang dates are famous among consumers for their quality. Because the origin of red dates can be both a selling point and an obstacle, Chinese companies use many of the same tactics used in other sectors to get Xinjiang dates on the [shelves of American supermarkets](#), including intermediary shippers, subsidiaries in other provinces, and company name changes. However, despite

prohibitions on their import, Xinjiang dates have entered the United States with labels clearly indicating their origin (for example, [兵团红红枣](#) or “Bingtuan Red Red Dates”) despite the passage of the UFLPA.

## SUPPLEMENTS AND FOOD ADDITIVES

The XUAR is responsible for the production of [50% of Chinese walnuts, 28% of its grapes, 90% of its cottonseed, 83% of its paprika, and all of China’s marigolds](#), all of which are key materials in the production of supplements, extracts, dyes, and other food additives.

[Chenguang Biotech Group Co., Ltd.](#) is a major producer of lutein supplements, paprika oleoresin, and other plant-based products such as extracts and dyes. The company has at least twelve separate subsidiaries and factories within the Uyghur Region of China and has documented ties to state-sponsored labor transfers and [poverty alleviation efforts](#). The company also benefits from state-run programs that [forcibly expropriate the land](#) of Uyghur people so that Chenguang is able to consolidate its farm lands. These products are sold to companies in the U.S. and India, among other places.

Other supplement and food additive companies may be operating in the region as well. Caustic soda, which is used as a food preservative, is produced by [Xinjiang Zhongtai Chemical](#) and shipped internationally to companies making food products. As discussed later in the PVC section, Xinjiang Zhongtai is one of the most prolific adopters and facilitators of the state-sponsored labor transfer program in the Uyghur Region. [Xinjiang Tianye Chemicals](#), a subsidiary of the XPCC, makes caustic soda and citric acid.

## Raw Materials Mining and Processing

### ALUMINUM

In 2021, China was responsible for [58% of reported global aluminum production](#). Within 15 years, the XUAR has grown from China's tenth largest aluminum-producing region to the [top aluminum-producing region](#). **At 10% of the world supply, aluminum production in the Uyghur Region alone is higher than production in India, Russia, or Canada.** Aluminum is a principal material in the manufacturing of electronics. Of course, aluminum is also used in automotive, aerospace, ship, aircraft, and railway manufacturing, building materials, appliances, food storage, and many other applications. The prominence of Uyghur Region processing of aluminum affects a wide array of products and industries.

Research has uncovered that the [eight top aluminum producers](#) located in the XUAR have been involved in the PRC's state-sponsored labor transfer programs in the region. At least two of these corporations are owned by the XPCC. Additionally, two of the companies have been named leaders in "Ethnic Policy" for their commitment to programs that are meant to assimilate Indigenous people into the mainstream Han Chinese culture endorsed by the government. This represents part of the massive re-education campaign that persecutes religious and ethnic minorities.

Particularly concerning is the opacity of aluminum supply chains. Some of the aluminum produced in the Uyghur Region is cast, rolled, or manufactured into parts within the Uyghur Region. But much of it is sold to other parts of China, where products are made without any indication of the origin of the aluminum. Furthermore, metals trading firms source aluminum from the Uyghur Region, potentially blend it with aluminum from other sources, and then sell it to manufacturers within China and abroad without concern for its provenance. One metals trader, [Trafigura](#), told Sheffield Hallam University researchers that the company did not sell XUAR-sourced product into international markets, but the company did not respond to further inquiries regarding to whom they do sell the XUAR sourced aluminum nor questions as to how they ensure that the XUAR-sourced aluminum was kept separate from other sources. This opacity makes metals sourcing extremely complicated.

### STEEL

China is by far the [global leader in global steel production](#), producing more than half of all of the world's steel. The Uyghur Region is the source of some iron ore, but more importantly, is a site where major steel producing companies have located their smelting facilities.

[Baowu](#) is the largest iron manufacturing corporation both in China and internationally, producing [12% of China's steel and 6% of the world's total steel](#). Baowu has spent a great deal of resources and time consolidating iron ore mines across the Uyghur Region in order to become the most prominent figure in the Chinese steel industry. The concentration of such a substantial share of industry in the region has implications for almost every industry for which steel is an important material for production. Baowu and its various subsidiaries are clearly committed to, and participate in, a the region's repressive programs. Among these programs include "[work deployment programs](#)," programs that match ethnic minority workers with so-called Han "[relatives](#)," so-called "[poverty alleviation](#)" efforts, [labor transfer programs](#), and [rural surplus labor programs](#).

Beyond Baowu, at least seven other enormous steel producing companies have invested heavily in iron mines and industrial facilities within the Uyghur Region, including several state-owned and operated corporations. The majority of the region's steel manufacturers are involved directly in state-sponsored labor transfer programs in the region. State-owned companies, including those owned by the XPCC, are even more likely to be engaging in the forced labor of Uyghurs through participation in these programs.

### COPPER

China is not the largest source of the world's copper, but it is the [most significant location for copper processing and smelting](#). China is responsible for smelting 50% of all copper internationally and accounts for 41% of copper refining. China is home to eight of the largest copper smelting manufacturers in the world and ten of the largest refineries with several located in the XUAR.

Two of the largest Chinese companies whose major activities include copper processing, [Xinjiang Nonferrous](#) and [Zijin Mining](#), are known to have engaged in repressive government labor programs, including labor transfers.

Xinjiang Nonferrous Metal Industry Group is state-owned and as such, is quite involved in [poverty alleviation programs](#), such as land transfer programs. Xinjiang Nonferrous has also established programs for [cultural assimilation](#) of ethnic minorities in villages that compel children to speak Chinese and indoctrinate them into mainstream Han Chinese culture. Furthermore, the corporation is heavily involved in governmental labor transfer and surplus labor programs. Subsidiaries of Xinjiang Nonferrous also have indicated engagement in these programs.

## MANUFACTURING

### TEXTILES AND APPAREL (COTTON, OTHER ORGANICS, AND SYNTHETICS)

Since 2010, the XUAR government has announced successive strategies that have provided significant subsidies to Chinese textile companies to set up factories in the region. Companies could receive tax exemptions for several years, and other [substantial incentives and subsidies](#) if they agreed to move to the region, including for bringing on workers from the region. This combination of incentives led to unprecedented growth in the textile industry in the region.

That expansion has required legions of new factory workers, and the government's labor transfer programs provided those. **The [Xinjiang Textile and Garment Industry Development Plan](#) of 2019 predicted that by 2023, 1 million new workers would be required to keep the textile industry in the XUAR running, and many of those jobs were filled by people who were assigned to them through state-sponsored labor programs.**

That expansion has required legions of new factory workers, and the government's labor transfer programs provided have exploded. In 2014, there were approximately [680 textile and garment factories](#) operating in the XUAR. By 2019, that number had grown to [at least 3500](#). State media has consistently celebrated the extraordinary number of citizens from the southern XUAR that the state has transferred into work in the textile industry.

Many people focus exclusively on the Uyghur Region's domination in cotton production and assume that textiles and apparel made of other textiles are likely untainted by Uyghur forced labor. However, that could not be further from the truth. **The PRC government has devel-**

**oped the Uyghur Region as a [vertically integrated textile and apparel hub](#), where every stage of production and practically every kind of textile has been expanded.**

In 2015, the [PRC's Office of the State Council](#) instructed the Uyghur Region to significantly develop its finished apparel manufacturing, expand viscose production aggressively, and to invest in development of polyester, chemical fibers, yarn blends, and nylon (as well as geotextiles and other textiles for industrial uses). It also encouraged the development of button, lining, and other apparel accessories production. The companies that heeded the government's advice to move to the region were instructed to "absorb" local workers, a euphemism commonly used to describe the state-sponsored labor transfer program.

### SOLAR PANELS

China has a [near-monopoly](#) over the production of solar-grade polysilicon, a material that is used in the manufacturing of 95% of solar panels, making it an indispensable aspect of climate action. **In 2020, China was responsible for the production of 75% of the global supply of solar-grade polysilicon, with manufacturers in the Uyghur Region accounting for over 45% of the total global production.** After only fifteen years in the industry, the PRC now dominates the global solar energy supply chain.

Quartzite is the primary raw material used in the production of solar-grade polysilicon and 10% of China's quartz reserves are found in the Uyghur Region. The mining of quartzite for polysilicon production occurs in the region, and significant evidence suggests that there is rampant forced labor in the mining industry in the XUAR. The production of metallurgical grade silicon and solar-grade polysilicon both involve energy-consuming purification processes. The Uyghur Region is a highly desirable location for this step to take place because companies operating in the region use 100% coal to produce their polysilicon. The result is that **XUAR-manufactured polysilicon has a higher carbon footprint and lower price than any of its competitors in China or abroad.**

There is [overwhelming evidence](#) that major producers and manufacturers, including the world's largest metallurgical-grade silicon producer and several of the most significant polysilicon manufacturers, have actively recruited and employed "transferred surplus labor" from rural villages and participated in poverty alleviation.

All of the major solar panel manufacturers source at least some of their polysilicon from the Uyghur Region still today. Since early 2021, the solar industry has vowed to exit the Uyghur Region, suggesting at one point that supply chains would be [free of forced labor by June of 2021](#). However, that has not come to pass. Despite the passing of the UFLPA in the United States, no polysilicon-based solar panel manufacturer has publicly announced a supply chain free of Uyghur Region inputs. Indeed, in [letters to researchers](#) at Sheffield Hallam University, at least one major producer has openly indicated that it is merely slowly extracting itself from its contract with a supplier in the Uyghur Region. Reviews of current supply contracts suggest while developing capacity in other regions to meet U.S. demands, major panel manufacturers remain invested in – even located in – the Uyghur Region despite evidence of forced labor and resultant import bans. Within only five months of the enactment of the UFLPA, U.S. Customs and Border Protection (CBP) had detained [over a thousand shipments](#) of solar panels, requesting information regarding the source of quartzite, which took manufacturers by surprise, suggesting that they had not conducted the necessary due diligence to know where their raw materials came from.

Some companies have [bifurcated their supply chains](#) to ensure an untainted supply for the American market. While it remains to be seen how successfully they have been able to ensure the separation of tainted from untainted sources, there is also the highly questionable ethics of selling products known to be tainted by forced labor into international markets where there are no such import bans. Major manufacturers continue to source a considerable amount of their polysilicon from the Uyghur Region, which means that countries other than the United States have almost certainly become dumping grounds for these Uyghur Region made goods.

## PVC

Polyvinyl Chloride, or [PVC](#), is a type of plastic known for its use in a variety of household products, including in credit cards, shoes, toys, plastic bottles, and shower curtains. Despite the wide range of everyday items made with PVC, its most common use is in construction, specifically in pipes and flooring.

**China has led the world in [PVC production](#) (and consumption) since 2006, and 20% of China's PVC comes from the Uyghur Region – accounting for 10% of the**

**world's PVC.** The two largest PVC producing corporations in the region are Chinese government state-owned enterprises.

Many raw materials necessary to produce PVC, including coal, salt, limestone, and mercury, are found locally in the region. The state-sponsored forced labor programs endemic to the XUAR are highly likely present in the [mining and extraction](#) of these materials, as well in the manufacturing of PVC itself. One of the companies producing PVC in the Uyghur Region, [Tianye Chemicals](#) is owned by the XPCC and has long been engaged in the XPCC's repressive programs. The largest producer of PVC in the region, [Xinjiang Zhongtai Chemical](#), boasts that it has employed over [5,000 "surplus laborers"](#) who have been assigned through the state-sponsored labor transfer program.

**The scale and intensity of pollution from PVC production in the Uyghur Region is greater than in any other part of the world.** PVC producers operating in the Uyghur Region are allowed to use [production methods](#) that are largely discontinued around the world because of their extraordinarily detrimental [environmental](#) and [human health](#) effects. XUAR-based PVC production releases approximately 9.9 tons of [mercury into the air](#) which is more than half of the air releases of mercury (14.8 tons) reported in all manufacturing in all of the United States in 2020.

## BATTERIES

The Uyghur Region produces both lead-acid batteries for traditional automobiles and lithium-ion batteries used for electric vehicles, renewable energy storage, and other applications. The Uyghur Region is increasingly manufacturing anode and cathode materials and lithium materials that are used for the manufacturing of batteries elsewhere in China as well.

[Camel Group Co., Ltd.](#) is one of China's largest lead-acid battery manufacturers and recyclers. Camel Group is directly involved in and benefits from [state-sponsored labor transfer programs](#) and is complicit in the [cultural repression](#) of ethnic and religious minorities. Furthermore, there are severe environmental and health risks associated with the manufacturing of lead-acid batteries. Camel Group's facility seems to have led to extremely [high blood lead levels](#) and the plant is situated on top of a traditional water source for the area's farming and drinking needs.

The world has grown [increasingly reliant](#) on Chinese production of [lithium-ion batteries](#) as the electric car market continues to grow. In 2020, China was responsible for the manufacturing of 79% of lithium-ion batteries worldwide. In 2022, both [Ganfeng Lithium](#) (one of the world's most important miners and producers of lithium products) and [CATL](#) (one of the world's most significant EV battery manufacturers) moved into the Uyghur Region, in an effort to develop the region's lithium exploration, mining, and manufacturing. Simultaneously, scores of lithium-ion (L-ion) battery manufacturers opened factories in the region, producing L-ion batteries for a wide range of applications.

**The Uyghur Region does not yet hold the EV or L-ion battery markets captive, but it appears that there is an ambitious [investment in developing](#) the region as a manufacturing hub for renewable energy materials and finished products.** Without a correction, this industry could also find itself in the situation that polysilicon is currently in.

## AUTOMOTIVE PARTS

The automotive parts manufacturing market is expected to reach nearly US \$2 trillion by 2026. **China is one of the world's top auto parts suppliers, exporting upwards of US \$45 billion worth in 2021.** The United States automotive industry is particularly reliant on Chinese parts, receiving approximately a quarter (US \$11.5 billion worth) in 2021. The manufacture of automotive parts is significantly [exposed to forced labor](#) with raw material inputs including aluminum, steel, and copper, whose connections to forced labor have been described in previous sections. There has also been an [increase in production](#) of other [automotive component parts](#) in the XUAR such as batteries (described above), electronics, car interiors, glass, and tires and wheels. Similar to other industries that have undergone rapid expansion, the PRC government has dedicated significant resources to moving the highly polluting and energy-intensive processing of these raw materials into the Uyghur Region.

The extent of the [auto industry's exposure](#) to the Uyghur Region is significant. Sheffield Hallam University researchers have identified 96 mining, processing, or manufacturing companies relevant to the automotive sector operating in the Uyghur Region, including at least 38 that have documented engagement in state-sponsored labor transfer programs. **That research found over 40 automo-**

**otive-sector manufacturers in China that are sourcing from the Uyghur Region or from companies that have accepted Uyghur labor transfers across China; more than 50 international automotive parts or car manufacturers (or their joint ventures) that are sourcing directly from companies operating in the Uyghur Region or from companies that have accepted Uyghur labor transfers across China; and more than 100 international automotive parts or car manufacturers that have some exposure to Uyghur-forced-labor-made goods.**

## ELECTRONICS

There has been a [surge](#) in electronics manufacturing in China, particularly for the use in electric vehicles, smart phones, and the “internet of things.” **Similar to other industries, the XUAR has introduced preferential policies for electronics manufacturing that have [“accelerated their transfer”](#) to the Uyghur Region (and in particular to the southern XUAR), which has led to the development of the sector as a [“key industry to drive employment, promote poverty alleviation, and increase income and rural revitalization.”](#)**

The PRC has determined to invest in the development of two key supply chains – [“coal-electricity-silicon-photovoltaic and other electronic materials”](#) and [“coal-electricity-aluminum-electrode foil and other electronic materials”](#) – and has made rapid increases in the production of a wide range of electronic component parts, as well as [consumer electronics](#). As one of the largest producers of photovoltaic silicon-based electronic materials and aluminum electronic materials, [XUAR labor](#) is linked to the production of printed circuit boards (PCBs), as well as power and signal transformers, connectors, wiring harnesses, and custom magnetic solutions, products which are used in a variety of applications but are also integral to the production of automotive vehicles. [Other electronic technologies](#) produced in whole or in part in the Uyghur Region include touchscreens and fingerprint recognition and smart car technologies. Electronics manufactured in region have been connected to [several suppliers](#) of [major global brands](#).

Furthermore, [multiple large electronics manufacturing companies](#) in China have been found to have participated in [state-sponsored labor transfers and poverty alleviation programs](#) that bring Uyghur workers to the rest of China. It seems that much higher scrutiny is required of electronics companies throughout China.

## But That's Not Al...

Companies should also consider the other industries that the Chinese government has invested in expanding in the Uyghur Region. Based on PRC government directives, those industries would include agricultural products including but not limited to tomatoes, cotton, peaches, grapes, marigolds, peppers, walnuts, dates, jujubes, melons; new materials/new energy/green technology including but not limited to photovoltaic inputs, wind turbines, and electric vehicle batteries; textile, garment, and shoe manufacturing; home appliances; chemical products; mineral resource exploitation and processing; electronic and other equipment manufacturing; and coal, oil, and gas extraction and refining. All of these sectors and those sectors that use these products as inputs in the manufacturing process are also exposed to Uyghur forced labor.

## Conclusion

We have seen significantly more interest in learning about and responding to the credible accounts of Uyghur forced labor in cotton, tomato, and polysilicon production due to the international recognition that they have received. However, Uyghur forced labor extends far beyond these sectors. **The role of Uyghur forced labor in global supply chains is much more extensive than simply a few sectors and extends far beyond direct suppliers because the XUAR is a source of raw materials, component parts, and products that can be incorporated in finished goods at multiple points along the value chain during manufacturing or production.** The Chinese government has expanded manufacturing in the Uyghur Region in a wide range of industries that have not yet been explored fully in the media or academic reports. Forced labor of Uyghurs is happening within the province and in the rest of China as well. Further, intermediary manufacturers in other parts of the world can obscure the origins of semi-finished goods.

Because the Chinese government has invested vast resources in this unprecedented system of compulsory labor and because that system so clearly contravenes the conventions that govern labor rights internationally, **we must examine all supply chains across all tiers.** This brief demonstrates the extent to which the systematic forced labor of Uyghurs permeates a wide range of industries and goods, but it only scratches the surface. Due diligence strategies and procurement protocols will have to be enhanced with these factors in mind.

### OTHER USEFUL RESOURCES IN THIS SERIES

Sheffield Hallam University's Helena Kennedy Centre for International Justice has produced a series of evidence briefs designed to assist stakeholders in addressing Uyghur forced labor. Briefs in this series cover the context of forced labor in the region, products made with Uyghur forced labor, common concerns about addressing the issue, and various guidance for businesses, journalists, governments, affected community members, advocates, consumers, and others seeking to address the issue. Readers who want to learn more should [visit our website](#).