



IFC's FPIC and the Cultural Genocide of Uyghurs

A failure to apply PS7 in
Xinjiang links IFC to gross
human rights violations

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IFC's 2012 Performance Standards purport to safeguard the indigenous right to Free, Prior and Informed Consent for impacts on their lands, livelihoods and culture associated with IFC investments. Performance Standard 7 should assure that development projects on indigenous lands directly benefit and are accepted by indigenous peoples. Yet IFC has never implemented its FPIC standard in Xinjiang, despite having investments in agriculture, energy and surveillance technology in the region. The failure to adequately implement PS7 has made IFC complicit in the ethnic cleansing underway in the region. This report outlines these findings and proposes mitigation measures.

Executive Summary

The World Bank's private lending arm, the International Finance Corporation (IFC), has committed to upholding the rights of indigenous peoples since at least 2012, with the launch of its updated Performance Standards. Implementation of this commitment has come under scrutiny in the past. Today, evidence suggests that failure to adequately safeguard indigenous peoples is contributing to an ongoing cultural genocide. As the research in this report lays out, the IFC has investments in Xinjiang Province, China, home to indigenous Uyghur populations and host to a cultural genocide. Several of these investments have links to the government's campaign of repression against the Uyghurs.

Chinese authorities have incarcerated over 1 million Uyghurs and conscripted millions more into forced labor. They have systematically erased cultural heritage, both through physical destruction and through the institutionalization and indoctrination of children and adults. IFC's investments in the region include industries that (1) source raw materials that are credibly linked to forced labor associated with Uyghur detention, (2) are historically tied to Xinjiang prison labor where Uyghurs are sent for "unpatriotic" thoughts, (3) are credibly linked to surveillance technology used to penalize Uyghur culture and religious practices, and (4) are visibly linked to the destruction of critical cultural heritage. Some IFC investments are located adjacent to vast Uyghur internment camps.

Using satellite imagery of IFC's client operations, supplemented with IFC project documentation, public reports, and leaked Chinese documents, this report presents evidence of credible risks that IFC

financing is contributing to the Uyghur cultural genocide in Xinjiang.

NomoGaia alerted the IFC to these concerns in November 2020 and engaged with the bank to seek evidence demonstrating that these risks are managed. Two Xinjiang investments have been divested in that period. Some of IFC's inquiries into client operations in the region have documented a degree of risk mitigation. Newer investments now articulate when operations are "not located in or linked to Xinjiang province."

However, the implementation of Performance Standards remains opaque at best. Censorship and surveillance are ubiquitous in Xinjiang, and IFC states that it has no special access or privileges in the region. Its team faced intimidation and police questioning on a 24-hour 2019 monitoring visit and has not conducted follow-up fieldwork in the region since then. To date, IFC has not documented any systematic assessment of its clients' social impacts on Uyghur communities hosting IFC clients or Uyghur contractors in its clients' supply chain. Only one ESIA has been produced for all these projects, but it cannot be read without the creation of a WeChat account and issuance of a payment.

If IFC cannot monitor compliance with indigenous rights standards in its Xinjiang clients, IFC should divest from all financing in the region. This response would not be extreme. Worldwide, private, public and financial decisionmakers have issued sanctions and bans on materials and goods sourced from Xinjiang. To name a few:

- The US government has banned cotton and tomato imports from Xinjiang;ⁱ

- The UK government has modified its modern slavery fines to directly penalize companies credibly linked Xinjiang abuses;ⁱⁱ
- The Australian and Japanese governments have proposed bills to sanction products from Xinjiang;ⁱⁱⁱ
- Auditors from French, UK, German and US firms refuse to conduct audits in the region (citing safety risks to their auditors and extreme restrictions on access to information and laborers); and^{iv}
- The Fair Labor Association has barred all members from sourcing any materials from Xinjiang.^v

These governments, businesses and associations have taken unprecedented and public actions in the face of irrefutable evidence of crimes against humanity ongoing against Uyghurs in the region. That IFC has not done the same raises questions about implementation of its own safeguards.

In conducting the initial research for this project in 2020, we had no intention or expectation of finding credible links between IFC investments and Uyghur cultural erasure. In many ways this report should stand alone, rather than within a series. We decided to publish it within the series because it demonstrates how catastrophically harmful weak implementation of indigenous safeguards can be. Disregard for indigenous peoples is rarely recognized as an urgent issue, which is why Performance Standard 7 (PS7) is so rarely applied. But the cost of failure can be as high as genocide. That point should drive a much broader and deeper commitment to indigenous protections across development finance.



Figure 1 - Uighur woman drying peppers

[Miyake Jun](#) 11 Oct 2011 [Creative Commons](#)

Introduction

About this series and report

This is the second report in a series evaluating IFC's implementation of its Indigenous Peoples Performance Standard, PS7. The first examined how fulsomely PS7 was implemented in the 29 projects where it was nominally applied.^{vi} The third report, forthcoming, examines the dozens of projects where indigenous peoples were present and impacted but PS7 was completely bypassed. Those two reports informed the preliminary research for this report, which focuses on an indigenous community that has gained global attention in recent years for the extreme levels of persecution they are currently experiencing: the ethnic Turkic Uyghurs of Northwestern China.

IFC has funded numerous projects located in Xinjiang, the ancestral homeland of the

Uyghurs. Although the region historically was nearly devoid of Chinese ethnic-majority Han people and home to ethnic minorities with deep religious and cultural ties to the land, IFC has not consistently applied PS7 across its investments in the region.^{vii} At the one investment where IFC did apply PS7 in Xinjiang, it did not require clients to obtain the Free, Prior and Informed Consent of impacted Uyghurs affected by the IFC investment in question, as provided for in PS7 and as consistent with the Declaration of the Rights of Indigenous Peoples. This report looks not only at the apparent inconsistency in consideration of Uyghurs as indigenous but also the role of IFC contributing to the repression of Uyghurs.

Xinjiang and the Uyghurs

Ethnicity, religion, language, history

Uyghurs are an ethnic Turkic population who inhabit the land formerly known as Eastern Turki, now called Xinjiang (“The New Frontier” in Mandarin). Uyghurs have a distinct language, written in Perso-Arabic script (not Mandarin characters) and related to Uzbek. Unlike the Han Chinese population, they are majority-Muslim. Their cultural practices in agriculture and livestock are distinct from Han practices and Beijing’s industrialized agribusiness, both in the irrigation approaches engaged to support traditional crops, and in the halal slaughter practices and traditions around animal sales (at traditional markets) and husbandry.

An independent political entity until the late 18th century, Uyghurs have seen their lands occupied by military and colonizing forces (predominantly from China but for a time from the Soviet Union) for over two-hundred years. Champions of Uyghur autonomy have consistently resisted these conquests and sought to retain their ancestral authority.

When China annexed Uyghur lands in 1948, the territory was majority-Uyghur (85%) and less than 5% Han. Today it is minority-Uyghur (42%).^{viii} This staggering demographic shift is the result of three primary efforts by the Chinese government: (1) the colonization of the region by ethnic Hans as Beijing established economic incentives for Han businesses to establish themselves in the region, (2) the transport of ethnic Han prisoners to work in Xinjiang as conscripted labor, and (3) the ‘export’ of Uyghurs to factories across China in a euphemistically described “labor transfer program.”^{ix} More recently, the Chinese government has used forced sterilization to reduce the Uyghur population.

The dilution and diminution of Uyghur culture triggered backlash in the region,

including violent protests in 2009 and 2014. In response, China has simultaneously rolled out “anti-terrorist” surveillance programs and “poverty alleviation” strategies designed to reduce the potential of violent extremism across the region. “These schemes operate on a continuum of coercion, and they are becoming heavily intertwined,” experts concluded in 2019.^x

Poverty alleviation and so-called efforts to counter violent extremism are linked concepts, and, as a result, the systems used to track both have become circular and intertwined. “Collaborations between enterprises, industrial parks, and different types of training institutions—both real vocational schools and vocational internment camps—ensure that former camp detainees end up working alongside other trainees. Differentiating forced internment camp labor from other forms of coercive labor is becoming an impossible task.”^{xi} Leaked government cables detailing how detentions were pursued in the Karakax region of Xinjiang describe how village work teams contribute to the security service’s Integrated Joint Operation Platform (IJOP), used to detain ‘extremists,’ based on their workday observations. Bulletin Number 20 features a report titled “Integrated Joint Operation Platform Daily Clues Report.”^{xii} (see sidebar, right)

When work teams “boost” the rank of villagers by mentioning them in information evaluation meetings (信息研判), those villagers are sent to re-education, the Karakax leaks show. Uyghur culture has been stereotyped as promoting laziness and indolence, as well as violence and terrorism. Stamping out that culture is a priority for the poverty reduction programs as well as the anti-extremism programs. Through interrelated anti-terrorism and anti-poverty efforts, China has forcibly relocated millions of Uyghurs off of their traditional

lands and into urban settlements disconnected from their communities and cultural practices.^{xiii} Their new apartments are outfitted with video cameras, whose feeds track facial expressions and link movements to a growing database of biometric information on every resident.^{xiv}

The Daily Clues Report

“In this document, these clues are referred to as “dig, reduce, shovel clues”. The relationship between the village-based work teams and the IJOP is evidently circular: Through the IJOP app (一体化APP) and other local reporting mechanisms, the teams, along with local cadres and government staff, feed the integrated big data platform with meticulous details about households and individuals based on their home stays and visits. The IJOP combines all data from all sources, including police and surveillance data, and then flags anything that is deemed suspicious and warrants further investigation. Besides local cadres and police, it is often the work teams who are then charged with investigating whatever the IJOP flagged, included so-called ‘persons recommended to be sent [to re-education] by the integrated platform’ (一体化平台推送的人员, or short: 一体化推送). Specifically, work directives for these teams mandate that they must ‘undertake an on-the-ground investigation of micro clues [微线索] that were pushed [by the IJOP].’ Together with the local authorities, village-based work teams are also responsible for comprehensive analysis of the evidence that they gather.”

Ethnic Cleansing and Potential Genocide

While Beijing's effort to colonize and Sinicize "frontier regions" with ethnic Han settlers is a tactic for indigenous dilution common across China's frontier regions including in Tibet and Inner Mongolia, recent policy changes in Xinjiang have cast a darker pall over the efforts. Starting after a 2014 protest by Uyghurs seeking to celebrate Ramadan against state orders, the Chinese government began "diverting" Uyghurs from their homes and livelihoods to attend political indoctrination classes or contribute unpaid labor to government projects. By 2015, the Sinicization efforts were so widespread in Kashgar prefecture (the region of Xinjiang home to the world's largest concentration of Uyghurs) that it actually affected the entire region's cotton outputs.^{xv}

By 2017, the government had begun formalizing the labor conscription and Sinicization, building a network of hundreds of prison facilities designed to "de-radicalize" Uyghurs.^{xvi} Crimes of radicalization included innocuous activities like downloading messaging apps (like Facebook-owned WhatsApp), communicating with relatives

abroad, attending religious services, texting in the Uyghur language, and wearing traditional dress.^{xvii} Individuals were identified and tracked using the surveillance technology that the government had begun rolling out across the region as early as 2013.^{xviii} Ownership of an untracked phone, as well as failure to own a phone, made surveillance impossible and, therefore, Uyghurs without modern, traceable phones were punished with imprisonment.

Despite Beijing's extremely tight control of news reports from Xinjiang, global leaders have come to recognize the abuses as genocide.^{xix} The finding is linked most directly to the systematic sterilization and prison rapes of Uyghur women and the indoctrination of Uyghur children whose families are in detention.^{xx} Yet China is not murdering Uyghurs *en masse*. While unknown numbers of Uyghurs have indeed disappeared, the effort to eliminate Uyghur culture does not hinge on elimination of Uyghur individuals but erasure of the characteristics of their indigeneity.

More specifically, authorities are working to eliminate traditional livelihoods,

community cohesion, and the transfer of traditional knowledge across generations. Traditional livelihoods are eliminated first by the imprisonment of breadwinners who are sent for "reeducation" and then into factory work. Xinjiang's ethnic minorities have resisted manufacturing work for decades but under Xi Jinping, China aims to have on million Xinjiang textile/garment workers by 2023 (equivalent to the whole Uyghur population of Kashgar and 5% of all Uyghurs in Xinjiang).^{xxi} This is to be achieved through coercion. In 2017, 230,000 ethnic minorities in the region were charged with religious extremism, separatism or terrorism. Fully 20% of arrests across China occurred in Xinjiang that year, though it is home to only 1.8% of China's population.^{xxii} In the southern Xinjiang district of Aksu, the government swept up over 4000 residents for deradicalization in a 2-year timespan and put them to 'reeducation in textile-making'.^{xxiii}

Public Security Job Advertisements in Xinjiang

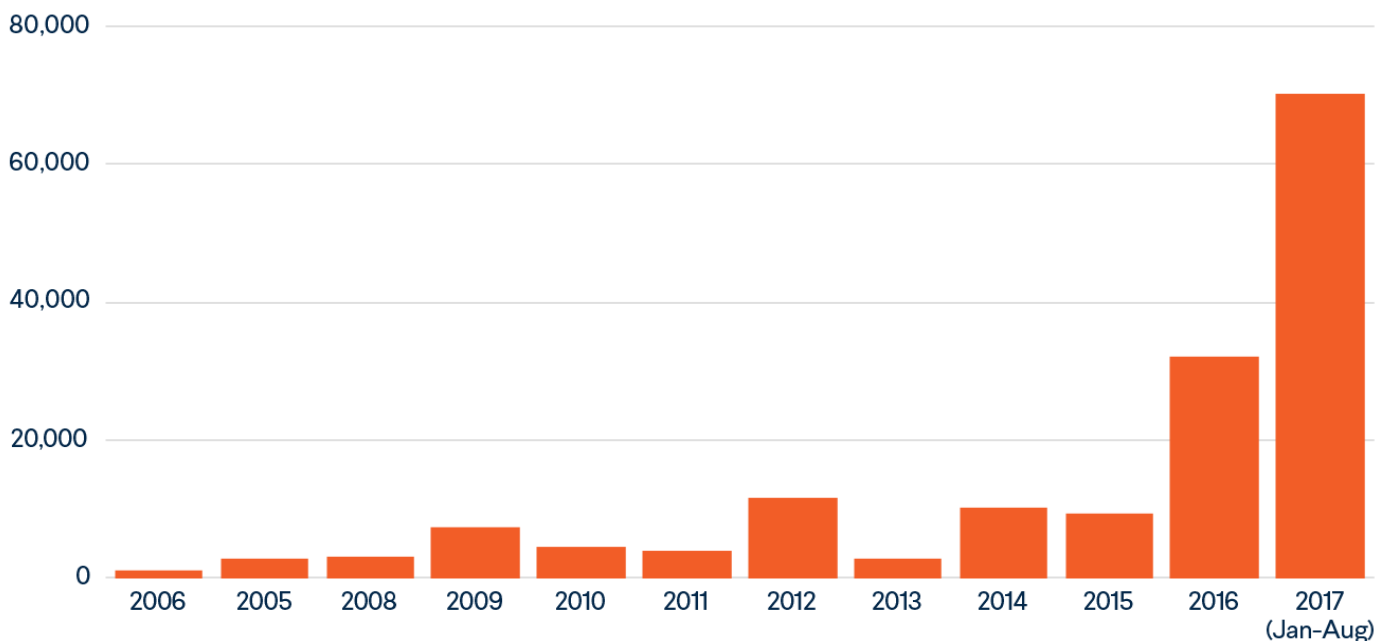


Figure 2 - Source, Adrian Zenz, Council on Foreign Relations Graphic <https://www.cfr.org/backgrounders/chinas-repression-uyghurs-xinjiang>



Figure 3 - <https://archive.is/8T3I4> Officials “entered every home” a second time to recruit these “surplus laborers.” The picture clearly shows that some are quite elderly. One (orange jacket) leaves behind a small child, as shown in other images at the link.

Lawyers are not permitted to accept ethnic minority clients, making it improbable that any of the accused were acquitted.^{xxiv}

Then their family members are counted as “unemployed” and conscripted into “poverty-reduction” programs as laborers on government farms and industries. Agricultural work has been a major branch of this “poverty-reduction” effort. In 2018 alone, more than half a million Uyghurs were sent to government fields in Hotan, Aksu and Kashgar regions to harvest cotton. As a recent Centre for Global Policy report documenting labor transfers in Xinjiang’s cotton industry notes, “Placing minorities into full-time wage labor has become a cornerstone of the state’s coercive social re-engineering project.”^{xxv} Not only are family members of incarcerated bread winners sent to the cotton fields, some persons released from the camps are sent directly to the fields through the labor transfer scheme. Cotton producers are no longer recruiting harvesters from other

regions as a result of Xinjiang’s intrusive social control systems that forcibly conscript Uyghurs into labor training and transfer mechanisms.

As the state news agency boasts:

“[T]he factors that once prevented the local work force from entering the cotton-picking market no longer exist. This is thanks to the continuous advancement of the work of transferring surplus labor performed by all levels of the Xinjiang government. Especially since 2014, Xinjiang has sent a total of 350,000 cadres to villages for 5 consecutive years to help the masses out of poverty and misery and built strong grassroots organizations. [As a result], southern Xinjiang farmers have been effectively organized and devote themselves to poverty alleviation.”^{xxvi}

One of the most informed scholars researching Uyghur repression in Xinjiang observes that these poverty reduction efforts are not primarily driven by

commitment to economic development. “The combination of full-time work and centralized elder care and child care is to ensure family members spend more time in state-controlled settings than with each other, under constant surveillance and control,” wrote Adrian Zenz in 2019.^{xxvii}

Community cohesion is also eliminated by the destruction of cemeteries and mosques and the resettling of agricultural households into urban apartments. Inter-generational knowledge transfer is disrupted by the institutionalization of Uyghur children in Mandarin-speaking and Han-oriented schools after their parents are incarcerated or swept up into the labor transfer scheme.^{xxviii} Solidifying the effects of these efforts, China has also transferred Uyghurs from Xinjiang detention centers to factories across China, under strict surveillance, assuring that their familial and cultural ties are severed.^{xxix} Shared histories are being silenced through the imprisonment of Uyghur poets and historians.^{xxx}

The role of business in colonizing, prison labor & ‘poverty reduction’

Chinese authorities describe the cultural erasure underway in development terms. Uyghurs are described as “passive and lazy” when not re-educated. Traditional ways are equated with a lack of discipline. The stereotypes disregard the fact that Uyghurs ran successful businesses while benefiting from communal ties and Uighur-language interactions prior to the crackdown.^{xxxix} Authorities point to Xinjiang’s high poverty rates to justify interventions undertaken by security and business actors from both the public and private sector alike.

The government has made public-private-partnerships a centerpiece of its Xinjiang poverty reduction efforts. These partnerships include (1) Labor transfers of Uyghurs to other regions and of Uyghurs to other municipalities within Xinjiang where they have no family connections; (2) “Sister city” agreements with other states across China, incentivizing Han businesses to build partnerships in Xinjiang and send Han workers there^{xxxii}; and (3) Business incentives, including the waiving of minimum wage laws, the issuance of electricity contracts at preferential rates, the denial of legal counsel to ethnic minorities, and tax breaks for new businesses established in the area. Experts have identified several sectors where these efforts have particular bearing on businesses, including those feeding global supply chains. Specifically, agriculture, manufacturing and energy production have been identified as industries associated with forced labor. Surveillance tech has targeted Uyghurs for detention.

Manufacturing

As government compelled businesses from eastern China to establish operations in “sister cities” in Xinjiang, government was also detaining and reskilling 5-15% of the Uyghur population, identified for re-education through surveillance tech. A symbiotic relationship developed, whereby detention facilities could train people into the jobs that eastern firms needed to fill. Beginning in 2018 (roughly 18 months after mass detentions began in 2017), officials shifted detainees out of reeducation facilities and into new jobs. Jobs were within the camps in newly-built factories, or in ‘satellite factories’ near poor villages or industrial zones. Some were also transferred to Xinjiang Production and Construction Corporation (XPCC) settlements across Xinjiang or to factories in eastern China.^{xxxiii} Rather than permit Uyghurs to return to their past lives, authorities transferred them to new jobs. For example, in 2018, Kashgar transferred 100,000 workers from camps into factories. Uyghur forced labor is linked to 83 global brands including BMW, Mitsubishi, Panasonic, Huawei, and many apparel companies.^{xxxiv}

Manufacturing jobs targeting Hans in Xinjiang also contribute to cultural erasure, comparatively impoverishing Uyghurs while changing the economic and physical landscape, making traditional livelihoods impossible (see: mining, third column).

Agriculture

The US government has banned all imports of cotton and tomato products from Xinjiang. The bans target commodities that are core to Xinjiang’s economy. Xinjiang produces over 80% of China’s cotton and fully 43% of the province’s exports are textile-based. Likewise, China is the world’s largest tomato producer (outpacing the next four largest producing countries combined), and Xinjiang is China’s largest tomato producing region.^{xxxv} The blanket ban in January 2021 followed on the heels of more targeted bans in 2020, as well as boycotts by auditors and certification bodies like the Fair Labor Association.

Although these crops are recognized as being among the largest users of forced labor, they are not unique. An array of agricultural products rely on forced labor, particularly crops that are hand-harvested.^{xxxvi} There is also widespread reporting of forced crop-conversion, as farmers are compelled to change their livelihoods away from traditional practices. Marigolds, chrysanthemums, spinach and onions are among the numerous crops promoted by local officials for purchase by state-supported industries.^{xxxvii} Experts note that the deeply intertwined relationship between business and government, poverty reduction and Uyghur repression, should lead operators to recognize that any economic activity in the region is associated with efforts by Beijing to exert control over Xinjiang.^{xxxviii}

Technology, Surveillance

The partnership programs promoted by Beijing to Sinicize Xinjiang and repress Uyghur culture also involve surveillance technology. In 2017 Xinjiang was the largest recipient of state contracts for AI and technology projects across China. Large firms like Baidu received some of these contracts (to track people’s movements in Xinjiang), as did smaller firms. While Beijing and other eastern cities got bicycle sharing programs out of these partnerships, Xinjiang and other frontier regions got “safe city” funding, entailing vast networks of surveillance cameras as well as data analysis technology.^{xxxix}

Mining and Energy Production

Decades before China began detaining Uyghurs *en masse*, it sought to control Xinjiang by militarizing and industrializing the region. Prisoners were shipped to Xinjiang under the oversight of the military, establishing the Xinjiang Production and Construction Corporation (XPCC), which developed coalmines, power plants, metals smelters, and much of the region’s cotton industry.^{xl} XPCC then contracted out power to other firms establishing operations in the region, often offering incentivizing new business by discounting energy prices to industries entering the region. These include wind turbine manufacturers and, more recently, solar power production (from the smelting of silicon ingots to the manufacture of solar panels).

Manufacturing

- Camel Group (Acid-Lead Battery Recycling)
- Century Sunshine (Magnesium and fertilizer manufacturer)
- Jointown Pharmaceuticals (warehousing, distribution and Traditional Chinese Medicine (TCM) production)

Agriculture

- Chenguang Biotechnology
- Jointown TCM production

Technology/Surveillance

- Baidu MCC (Microcredit for educational and reskilling programs)
- Simplecredit MCC (Microcredit for educational and reskilling programs in frontier regions)

Mining/Energy

- Chint New Energy (PV energy)
- Century Sunshine

Recently Divested Projects:

- Canadian Solar (energy)
- COFCO (agriculture)
- Xinjiang Goldwind (energy)

IFC's Xinjiang investments

In the years since the IFC's 2012 update of its Performance Standards, investments in China's Xinjiang Uyghur Autonomous Region have covered a range of industries, several of which have been linked to forced labor, 'Sinicization' and threats or damage to indigenous Uyghur culture. Researchers and scholars have directly linked industrial investments to efforts to stamp out Uyghur culture and identity, both by pressing Uyghurs into forced labor,^{xli} and by setting up businesses that recruit Han workers into Xinjiang region.^{xlii} That investors face risks, both from contributing to Uyghur job creation in the region, and from contributing to the inequality of Han 'colonization' of the region, leaves little space for ethical investment in Xinjiang.

Due diligence is complicated in the region by the direct suppression and censorship of information by Beijing. For example, whistleblowers in China traditionally rely on legal complaints and civil society advocacy, and since at least 2016, lawyers have not been permitted to accept cases from ethnic minorities, and civil society actors have been restricted from visiting the region.^{xliii} IFC's investments in Xinjiang include clients in the agriculture, technology, manufacturing and, until very recently, energy production, sectors. It is important to note that IFC clients may not be directly engaging in forced labor and imprisonment. However, the projects below are located in the region specifically to benefit from the exploitative supply chains (energy, agriculture) or the business incentives offered by government to colonize the region. IFC clients need not be directly hiring forced laborers to be a direct part of the system of repression.

The section below is laid out by industrial sector (manufacturing, agriculture, technology/surveillance, mining/energy). At the end of each subsection, a set of questions posed to IFC is included, with IFC's response (or non-response) color coded in traffic-light **red-yellow-green** to indicate how fulsomely IFC responded to each query and how it responded if a response was provided. The queries were designed as indicators – recognizing that IFC could not carry out monitoring visits to Xinjiang (least of all during the pandemic). Essentially, the questions were designed to determine whether IFC had enough information about an operation to be confident that it was not contributing to cultural genocide.

IFC refused to provide much of the information requested, citing client confidentiality. Where IFC *did* provide responses, summarizing feedback from clients, these responses were almost never rooted in data, but rather in broad assertions of the absence of problems. For example, IFC on several occasions informed NomoGaia that the client had provided written or verbal statements denying the presence of forced labor. These statements were never supported with data demonstrating that, for example, all seasonal workers labored in proximity to their homes and had extended histories in agricultural work. IFC noted that several clients had policies prohibiting discrimination, but it did not provide evidence that Uyghur wages were proportionate to Uyghur employment.

There were exceptions. IFC provided data demonstrating that its investment in Chint predated Chint's relationship with exploitative supply chain partners and that the investments were located in Turkey alone. Likewise, IFC demonstrated that its microcredit investments were demonstrably not targeting Uyghurs for reskilling (although the data raised unanswered questions about Uyghur exclusion).

IFC was privy to the content in this report for several months prior to publication, and we are hopeful that transparency will drive additional change in its approach to Xinjiang investments.

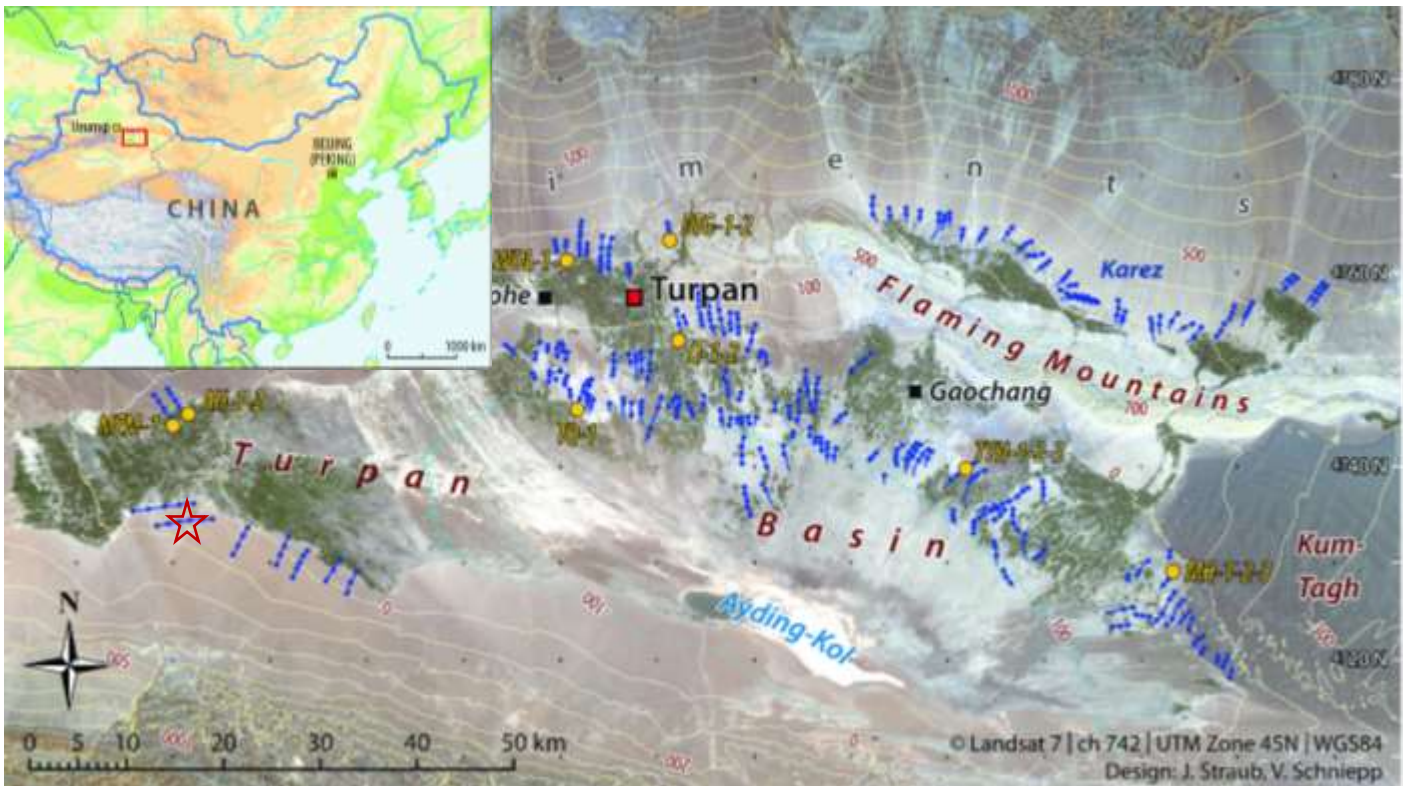


Figure 4 -Karez systems of the Turpan oasis (Project as red star). From Machtle et al, 2019

Manufacturing

Camel Group (Battery Recycling)

“A karez system is not only a structure to extract groundwater, but is also an integration of the history, culture, and unique knowledge of its builders. Karezes have created strong cohesion in their communities owing to the traditions and beliefs attached to them.”

- Dr. Shalamu Abudu, Uyghur hydrologist and water resources expert

Camel Group is one of the largest lead-acid car battery manufacturers and recyclers in the world. Recycling has almost halted the expansion of lead mining worldwide, but regulations around recycling facilities are weak and inconsistently implemented. The challenge is global; as recently as December 2020, California communities filed suit against a battery recycling plant for contaminating thousands of nearby properties including schools, parks and childcare centers.^{xliv}

Lead pollution affects air, soils and water. When ingested, either directly (through respiration or ingestion), or indirectly (e.g. through breastmilk or tainted crops), is a potent neurotoxin, restricting intellectual development and increasing risk of behavioral disorders. Lead battery recycling facilities have been associated with lead poisoning worldwide, including in several Chinese cities, causing the government to shut down hundreds of lead battery plants across China. Some of these facilities are relocating to Xinjiang.

In July 2019, IFC made a \$36m loan to Camel Group for infrastructure investments including construction a greenfield recycling facility in Toksun, Xinjiang. IFC concluded that PS5, PS7 and PS8 were applicable because project lands were state-designated industrial zones. IFC required a “land acquisition review” but did not document any follow-up on this review. Satellite imagery of the industrial zone, confirmed by IFC’s provision of GPS coordinates, locates the Camel facility atop at least two Karez Well Systems. Several Uyghur communities downgradient within a five-kilometer radius are named for the Karez systems that nourish(ed) their crops.

Karez systems are the traditional ‘underground river’ systems that Uyghurs built to transport water from the mountains to their croplands, while reducing evaporation. These subterranean canals stretched 5000 kilometers at their height in the 1800s, comprising over individual 1000 well systems.^{xlv} As described by leading

researchers, “a karez system is not only a structure to extract groundwater, but is also an integration of the history, culture, and unique knowledge of its builders. Karezes have created strong cohesion in their communities owing to the traditions and beliefs attached to them. Religious beliefs and cultural traditions also helped the karez system to be handed down as a legacy. In the past, the social arrangements in karez-based communities were directly related to the karez system. Essentially, people’s importance and value were judged according to their water ownership rights in the system. A household’s proximity to the system was a good indicator of the social or economic status of its residents.”^{xlvi}

The systems have been politicized, however. Beijing has named the systems “one of the great three constructions of ancient China” (the other two are the Great Wall and the Beijing-Hangzhou Grand Canal), and claimed (despite carbon dating finding operable wells dating to the 1400s) that their origins link to the Qing Dynasty in the 1700s. Because the Uyghur word ‘karez’ (كاريز) derives from the Persian ‘kariz’ (كاريز), government uses the Mandarin word, Kanerjing, (坎儿井). Data on karez systems has also been politicized. The government has sought to safeguard a small subset of them for tourism purposes, while electrical pumping for agricultural and industrial water uses are drying up others at a rate of 20-30 per year. The implications of every destroyed karez is direct for Uyghurs, whose livelihoods and ancestral ties to land are eliminated when the water source dries up. Locals report that as their traditional farms are annihilated, they turn to herding and other activities that do not rely on kinship ties and often foment disputes.^{xlvii}

IFC’s project appraisal for the Camel investment did not include consideration of these structures’ cultural significance. Presented with imagery of the precise geolocation of the facility, IFC expressed the

belief that “there are more than 100,000 karez wells in the Turpan region, and, though all the karez wells are registered, not all of them are culture heritage sites.” This understanding is drawn from government data, which simultaneously overstates the number of wells (no Uyghur literature estimates the number of vertical wells, as these shafts are primarily just entry points to maintain the underground canals that flow between them) and understates the cultural significance of each system to its direct users. Registration as a cultural heritage site reflects a government interest, not the individual importance of each karez system to its ancestral users.^{xlviii}

IFC observed that “the Camel plant is more than a kilometer from the nearest karez well,” which is true today. It was not true before Camel’s battery manufacturing facility was erected. The nearest karez to that facility is roughly 67 meters from that facility’s fence line, and a half-kilometer from the IFC-funded recycling facility’s gates. Remnants of it are still visible on satellite imagery from 2019, though it is clearly no longer operable. IFC has no documentation of how or whether the Uyghur families that previously relied on that karez system have been affected. The EIA for the recycling facility makes no mention of Uyghurs at all. Aside from the villages named for the specific karez systems their inhabitants historically used, the EIA makes only three references to karezes in the 321-page EIA; none of these reference consider their cultural relevance.^{xlix}

IFC also observed that, “our analysis shows that the plant’s operations will not impact the well. This analysis is backed up by the ESIA, which was produced by a third-party, private-sector expert. Among other things, it states clearly: ‘There is no special protected area or ecologically sensitive/vulnerable area.’” Here, IFC (and the EIA) evokes zoning regulation for the area, not evaluation of on-the-ground

sensitivities. Under the Xinjiang Government’s 2012-2020 8-year plan, the whole area was zoned industrial, but that zoning decision never considered the Uyghur uses of the land and resources.

Although the project is rated high-risk Category A, IFC has not made the EIA or other documentation publicly available. In March 2021, NomoGaia received a PDF of the EIA, after repeated requests. IFC noted that it required the client’s “permission” to release it, which is at odds with IFC’s sustainability and transparency policy commitments. The EIA makes no mention of any public consultation.

It is out of this report’s scope to consider whether the EIA adequately considered risks to downstream farmers in the towns named for the karez systems that once flowed from the newly zoned industrial park (nor whether the assessment meets PS1 expectations for social assessment). However, the evaluations of hydrogeology make no mention of whether or to what extent the presence of numerous vertical wells downwind and downstream from the plant could accelerate the transmission of dust, air, and water contaminants into the farmlands that previously sourced irrigation water from that spot.

In bypassing any mention of Uyghurs or cultural heritage, the EIA produced for the project describes population size and economic activities of the surrounding area, and its social analysis section is strictly a description of “social benefits” (社会效益分析), which center around national sustainability goals and job creation. As only six Uyghurs have been employed (on a staff of 120), it does not appear that these benefits are designed to benefit Toksun’s historic residents. Karez systems are not pictured anywhere in the ESIA, including on the mapping of the whole industrial zone. The project documentation wipes out Uyghur heritage just as the project footprint does.

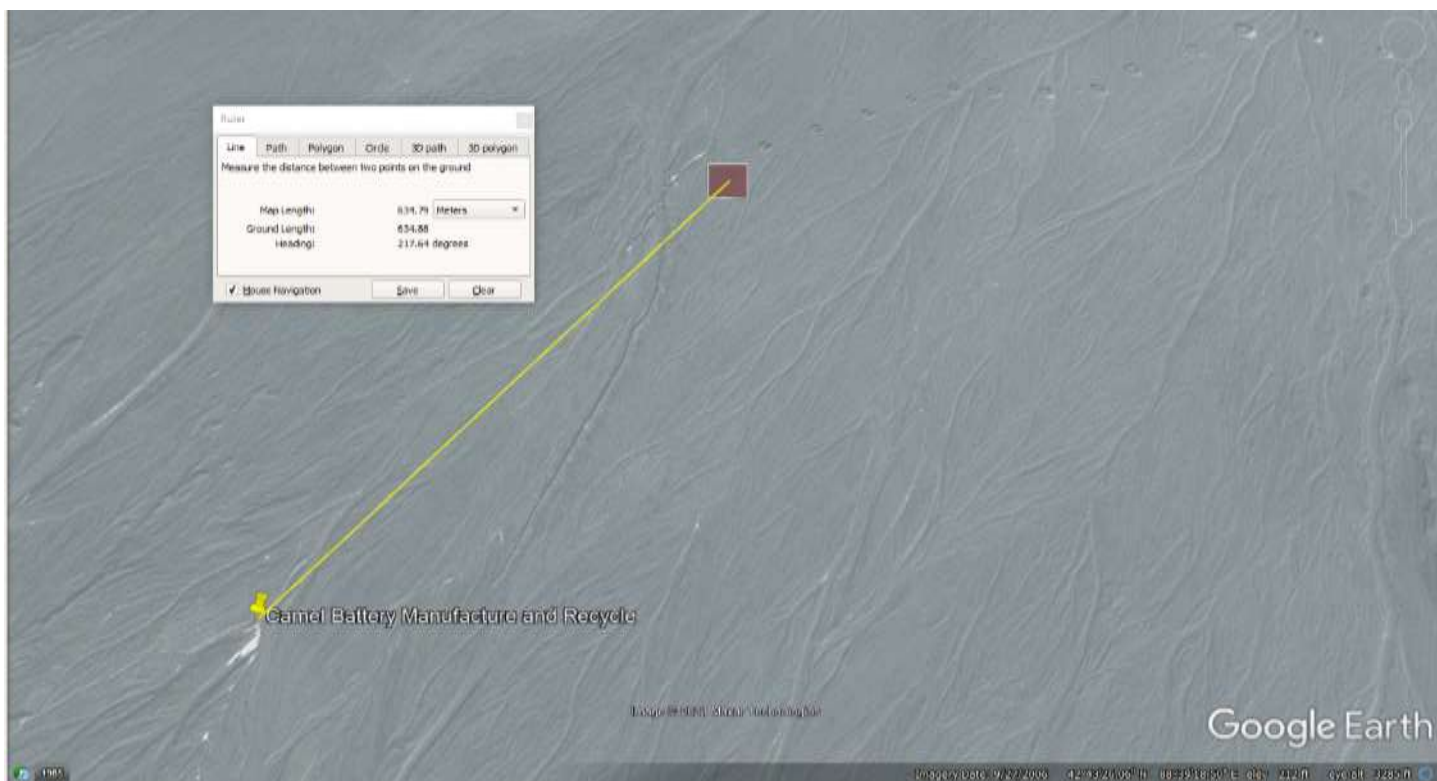


Figure 5 – One of several Karez systems, visible in 2006 imagery, are destroyed by 2019



Figure 6 - Magnesium facility and coal power source

Century Sunshine (Magnesium and Fertilizer)

Century Sunshine, an organic fertilizer manufacturer and magnesium alloy producer headquartered in Fujian Province, is a longstanding IFC client, with loans dating back to 2006. IFC substantially increased its financing of Century Sunshine in 2014 with two additional loans (totaling \$45m) and a \$15m equity investment. IFC project disclosures do not mention Century Sunshine's Xinjiang operations, although its Magnesium business is based in Hami City, Xinjiang. The Hami operation is in an industrial park south of the city and proximate to the decade-old Dananhu coalfields, where XPCC and other state-owned enterprises operate coal mines and coal-fired power plants.ⁱ The industrial park is upslope and roughly one kilometer from a riparian zone and several Uyghur communities.

IFC considered the main risks at Century Sunshine's facilities to be discriminatory hiring, with Han-dominated workforces. It has not disclosed any analysis of the potential role of Century Sunshine in colonizing Uyghur lands or expanding Han control over the region. Hami has been heavily militarized in recent years and freedom of movement drastically restricted. IFC does not document how that dynamic interacts with Century Sunshine's operation, which is located within a government-sponsored industrial complex.ⁱⁱ

Magnesium is sourced from a privately-held dolomite mine in Hami, whose Uyghur employment practices are not disclosed. Magnesium refining is an energy-intensive process requiring electrolysis (creating a chlorine gas byproduct) or thermal reduction (calcining dolomite into magnesium oxide and lime (CaO), which are reduced by silicon, leaving a slag of dicalcium silicate).ⁱⁱⁱ

Jointown Pharma (Juizhoutong)

Jointown is a pharmaceutical company that primarily provides warehousing and distribution but also produces Traditional Chinese Medicines (TCM), using agricultural inputs (e.g. hemp seed). IFC has lent Jointown nearly \$200m since 2019, to support its expansion in frontier regions.

Jointown's Xinjiang subsidiary has had a mixed track record in terms of candid reporting since its founding. Most recently, in May 2020, the firm was cited for non-compliance with medical production regulations.^{liii} In addition to the 2020 incident, it has faced state scrutiny in 2010 and 2013, first for selling several billion yuan of counterfeit drugs without a permit in October 2010^{liv} and later when it violated its distribution contracts, failing to meet even 50% of its distribution of essential medicines across the region.^{lv}

Heightened due diligence on a firm with such a track record would be imperative. To that effect, there are valid questions to be raised about why a pharmaceutical firm would require emergency Covid funding (both from IFC and the Chinese government) in 2020, as additional employees should reasonably be compensated with the additional revenues of rising public health demand.^{lvi} IFC has accepted written statements from Jointown that "there is no forced labor involved in its operations in Xinjiang." This may not be an adequate level of due diligence for a firm that has sold counterfeit medications and falsified documents in the past.

Xinjiang Jointown built a new facility in Urumqi in 2016, designed to employ "thousands" of people (the company now reports a workforce of 1474). The facility has been erected proximate to a longtime prison area of Urumqi, which was expanded in 2017. Its Kashgar facility is adjacent to a military base, its Urumqi headquarters is adjacent to a multi-part detention facility.

Jointown has told IFC that it has no relationship with the prison system or forced labor. This statement should not be taken at face value, given Jointown's reporting failures in recent months and years. IFC continues to assert that Jointown "does not employ agricultural workers" for its TCM production, which leaves questions unanswered about where agricultural inputs are sourced. Jointown has provided IFC no data regarding contractors or suppliers. Jointown observes that ethnic minorities are 6% of the workforce holding low-level positions (sales, general administration, warehousing, delivery), suggesting that Uyghur salaries are below Han salaries.

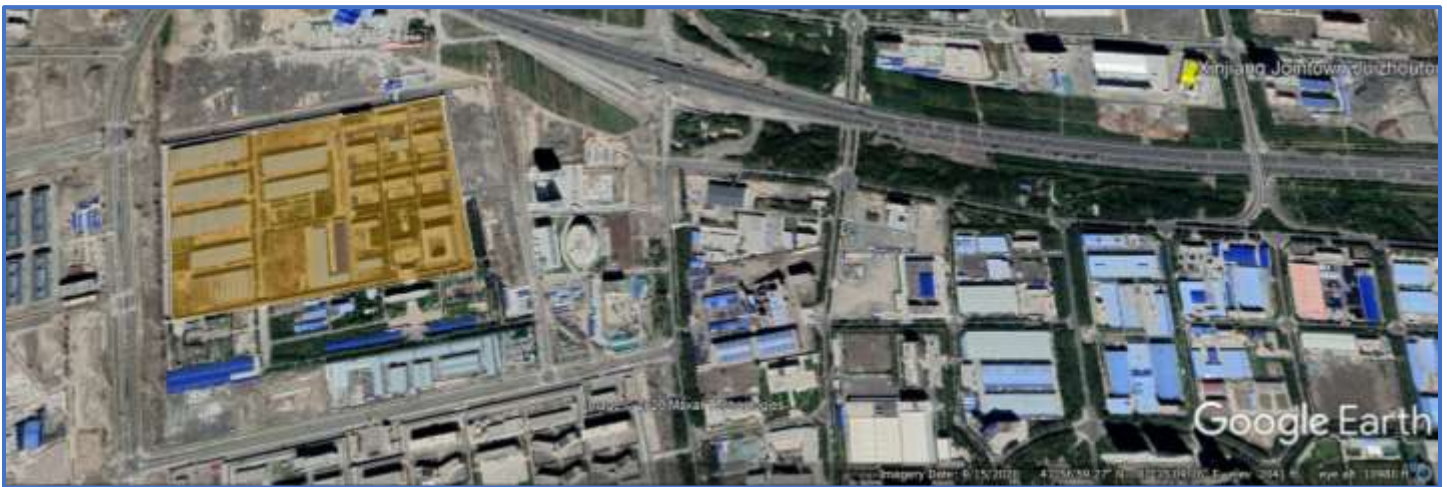


Figure 8 - Xinjiang Jointown new facility (yellow thumbtack), less than 1km from N. Urumqi prison complex (yellowed polygon). Google Earth Screenshot 2021



Figure 7 - Xinjiang Jointown Urumqi Headquarters (Bottom-center yellow thumbtack) adjacent to multiple prison complexes, two razed communities and a mosque whose minaret was destroyed.

Key questions about IFC's due diligence in manufacturing facilities

- Can IFC demonstrate that these facilities hire workers on a voluntary basis, pay them living wages, and pay the same wage rates to ethnic minority workers *and contractors* as to Han? IFC asserts that hiring is voluntary, pay scales accord with skills requirements, wages are comparable for employees in Xinjiang as in these companies' other operations but provided no documentation to this effect. IFC has accepted verbal and written statements from companies denying involvement in forced labor and relationships to detainee labor. IFC has not asserted or demonstrated that jobs given to ethnic minorities pay as well as jobs given to Han Chinese at any company. IFC has not provided data regarding contractors at any facility. IFC did not provide data on wages paid to Uyghurs as a percentage of total wages to evaluate whether Uyghurs retain marginalized roles in manufacturing firms or are receiving equal opportunities.
- Can IFC indicate what percentage of the workforce (direct, contracted) is currently ethnic minority? The workforce across Century Sunshine is 10% minority; Camel's Xinjiang facility is 5% Uyghur, Jointown's workforce is 6% ethnic minority, indicating that these firms largely exclude Uyghurs from job opportunities in skilled positions. No data is provided regarding contractors.
- Can IFC provide access to Camel's ESIA? Yes, though it involved an extended delay and required client permission.
- Where are these facilities sourcing their power, and what relationship do those power stations have to the XPCC? Power is sourced from the grid. Imagery from Century's facility directly link it to Danahu Coal Station. Water at Camel and Century Sunshine (both located where karez systems are indigenous) are sourced from reservoirs linked to the destruction of karez systems.^{lvii}
- Can IFC indicate where Century Sunshine sources Magnesium? IFC asserts that Magnesium is sourced from one of several dolomite mines in Hami. What due diligence has been done on these associated facilities? None available.
- What due diligence has IFC done with regard to critical cultural heritage at project footprints and associated facilities? Critical cultural heritage assessment is absent from Camel, the operation assessed as highest risk by IFC, and none has been disclosed from Jointown or Century Sunshine. To date, no due diligence on associated facilities is available.



1. Figure 9 – Tomato production in Xinjiang. Image Credit 2019 Fang Ledi Reporting <https://zhuanlan.zhihu.com/p/76694847>

Agriculture

Chenguang Bio

Chenguang Biotechnology (Chenguang Bio, or CCGB) produces food additives, natural dyes and nutritional supplements from agricultural products like marigolds, peppers, tomato skins, cotton seeds, cumin, walnuts and grape seeds. In its 10 or more Xinjiang operations its direct workforce of roughly 370 carries out processing activities including highly skilled labor in high-tech processing facilities. Ethnic minorities account for 24% of this workforce. Though IFC has not disclosed whether any ethnic minorities are in senior leadership, all are paid at least double the regional minimum wage and local recruitment is a priority.^{lviii} The footprints of CCGB facilities are either greenfield on desert lands or brownfield in industrial zones. They are not the main source of human and indigenous rights risks for the company; their supply chains are.

CCGB relies on a combination of small-scale agricultural producers and large-scale agricultural traders to supply them with the raw materials needed for their products. Farming – both small-scale and industrialized – has grown to be a major component of the Xinjiang government’s Uyghur repression campaign, even as the state and the private sector operators

directly involved in repression deny any wrongdoing.

Labor

Precisely because Uyghur accounts diverge so sharply from official reports, IFC would need granular, operations-level knowledge of sourcing to allay concerns about forced labor, trafficked labor, and other forms of coercion in the agricultural supply chain. Already, all of CCGB’s Lycopene (tomato-based) and cottonseed products produced in Xinjiang are banned from US markets, because the Department of Homeland Security can find no credible evidence that any tomato and cotton supply chains are free of forced labor in the region.

When IFC asked how it might demonstrate that its operations were not connected to the forced labor campaigns associated with detention and with “poverty reduction” initiatives, NomoGaia provided a list of questions and document requests. IFC supplied no documents and answered a small number of these questions, as outlined below. IFC responses relied heavily on documents produced by the company, such as supplier contracts and written statements from suppliers. Nowhere in the world do such documents demonstrate adherence to anti-exploitation policies. In practice, suppliers and contractors

almost never admit to the presence of forced labor in their operations. Duly diligent clients are expected to conduct their own research into their suppliers’ practices. The risk of misreporting on ethnic oppression in Xinjiang is heightened yet further, because operators conceptualize coercion differently than human rights advocates and Uyghurs themselves do. Chinese authorities consistently characterize coercion and cultural erasure as patriotic.

CCGB is a participant in the Xinjiang Poverty Reduction Program, requiring its workforce to register with authorities into the IJOP database (described above) and operate in village-based work teams where work team leaders are expected to report on “extremists” in their teams. As a firm sourcing seasonal products, CCGB is at high risk of sourcing materials harvested by involuntary “labor transfers”. Government work groups are documented directly linking farmers to Chenguang Bio, and recording farmer productivity and other critical data into both the Poverty Alleviation Platform and the IJOP.^{lix} IFC did not respond to requests for clarification on how seasonal workers were logged in the IJOP database or what percentage were targeted through “poverty reduction campaigns.” CSIS identifies hiring processes using government-linked recruiters as a high-risk activity for

exposure to forced labor and recommends that “companies whose products contain tomato products and other goods implicated in forced labor in Xinjiang should also conduct due diligence on their supply chain links to Xinjiang and report on them.”^{lx}

At CCGB source farms, seasonal workers are paid piece rate, and people new to the tasks struggle to earn even the minimum legal wage (IFC did not provide a minimum monthly payment). These jobs have not historically been desirable to Uyghurs, and IFC has not sought to understand why labor has recently become readily available. IFC also reports that contractor ages are strictly limited to an 18-59 year old

range (surprising as the average farmer age worldwide is 59; 60% of agricultural workers in China are over the age of 45, while CCGB claims roughly 30% of workers in this age range). Rather than provide raw data or evenly split age categories, IFC reported arbitrary age ranges (One for the 22-year range of 18-40, one for the nine-year range of 41-50, and one for the eight-year range of 51-59). There is no way to meaningfully extrapolate worker ages with this data. Requests that IFC articulate what percentage of seasonal laborers have been through reeducation were unanswered. Likewise, IFC did not respond to requests for clarifying data demonstrating that all workers labor in the vicinity of their homes.

Sourcing from small farmers reduces the risk that prison labor is present in these fields. However, it also increases the risks of child labor and coerced labor. As Uyghur farmers are detained in large numbers and sent to camps, children have reportedly taken over the agricultural responsibilities of their detained parents. This has been documented in the vineyards of Turpan (where CCGB’s grapes are sourced) as well as the cotton fields of the region, which are now subject to trade bans to the US.^{lxi} Chenguang Bio’s promotional video shows a child in marigold fields, as well as workers without personal protective equipment and a brief shot of concertina wire surrounding the farms.^{lxii}



Figure 10 - Child loading marigolds and concertina wire. Screenshots from a Chenguang Bio promotional video

Land

Chenguang Bio suppliers require access to land in addition to laborers. Here again, IFC has conducted no conclusive due diligence to determine that Chenguang Bio’s suppliers are willingly producing the crops it demands. IFC has pointed out that Chenguang Bio provides agricultural inputs and guarantees a minimum payment to farmers for growing its raw materials. This language echoes the language of XPCC describing its cotton activities as “Facilitating production development through assistance.” In 2018 XPCC described itself as “helping family members cope with the shortage of production materials” by supplying “seeds, chemical fertilizers and mulch.” IFC is expected to be cognizant of how development language cloaks coercion and repression in the Xinjiang context.



Land use shifts in the areas around Chenguang’s operations raise questions about whether smallholders continue to be the sole source of raw materials, both as Uyghurs are detained in large numbers and as their lands are converted for other uses. Satellite imagery around Chenguang Bio Kashgar Yopurgha site, in Yarkand, shows industrial agricultural tracts expanding just north of the facility, while smallholder farms and traditional rangelands have been replaced with multi-story urban buildings. This image provides a time-lapse from 2011 to 2020. Chenguang Bio’s operation, denoted by the red dot at bottom, was established in 2011. Southeast of the Chenguang Bio Yopurgha operation, the same time lapse shows the development of Yopurgha’s Tier 4 prison facility surrounded by a tier-2 re-education camp and vastly expanded agricultural tracts. Prison facilities are recognizable by the presence of both inner- and outer-wall defenses, with tall guard towers at the corners of outer walls and the blurry lines of concertina wire on the inner wall. The presence of this prison and camp have been confirmed by government documents and listed in the ASPI’s Xinjiang Data Project.^{lxiii} The Chenguang Bio Yopurgha operation processes cottonseed alongside marigold and cumin, increasing the urgency for IFC to evaluate claims that cottonseed sourcing is divorced from the coercive labor of the commodity.



Figure 12 – (a) Chenguang Bio footprint before operations were established (2011), (b) after operations were established (2019) in northeast of frame (red pin), with (c) max-security facility within (d) new prison at southwest of frame.



The substantial expansion of industrial agriculture in this area has not been explained by IFC or the client. It may be linked to other actors.^{lxiv} IFC declined to provide GPS coordinates of the Chenguang Bio Facilities or their suppliers to facilitate analysis. Because the agricultural labor associated with these end products are so closely linked to reeducation approaches, and because Chenguang Bio operates in direct partnership with the government systems linking poverty alleviation and “extremist” surveillance, IFC would need to conduct rigorous due diligence to ensure its client is not complicit in coercive government efforts to erase Uyghur culture.

IFC conducted a small number (fewer than five) spot interviews with Uyghur truck drivers delivering crops to one of Chenguang Bio’s facilities in 2019. As IFC recognizes, spot interviews at job sites with workers are unlikely to elicit candid criticisms. This is true worldwide, but particularly in Xinjiang, where ‘reeducation’ is the penalty for ‘unpatriotic’ thinking.^{lxv} Generally, determination of farmer and worker sentiments is currently not realistic or feasible in Xinjiang.

The question IFC has posed to itself,^{lxvi} is whether the development potential for agricultural laborers and smallholder farmers outweigh the risks that they are coerced into producing and harvesting the agricultural inputs used by Chenguang Bio. IFC does not have to make this calculation alone. Worldwide, governments, businesses and industry associations have concluded that any potential for economic gains are outweighed by the ongoing cultural erasure.^{lxvii} Fundamentally, the *scale* of oppression against the Uyghurs shifts the calculus from one of potential injection of capital into a community, into one of potential exacerbation of crimes against humanity. If IFC clients are contributing to ethnic cleansing, economic growth is no excuse.

The table below provides NomoGaia's understanding of Chenguang Bio's Xinjiang operations and sourcing of hand-harvested raw materials, including cotton, tomatoes, peppers, marigolds, and cumin and walnut trees. Several of these crops have been associated with forced labor, triggering international sanctions. Six facilities are within five kilometers of a detention facility. IFC reports that the client claims it has no relationship with detention facilities but does not in any way demonstrate it.

Company/ Operation	City	Crops	Nearest Detention Facility3
Xinjiang Pallan Biological Technology	Tianshan, Urumqi	N/A - this is an office	0.5km from Tier 4 Prison
Chenguang Bio Heitan; Tugo Ri Gazi	Keriya (Tugo Ri Gazi)	Marigolds, Pepper, cotton (?)	2.7-6.2 km from nearest facilities
Shache Protein (W. Railway Stn. Ind. Park)	Yarkant/ Shache, Kashgar	Cotton, Walnut	3km from detention camp
Chenguang Bio Natural Sesu Limited Korla "Xinjiang Chenxi Jiaoye Ltd"	Korla/Yanqi	Peppers, Tomatoes, Cumin(?)	3km from Korla facilities
Tumushuk Chenguang Biotechnology Co., Ltd	Tumuxuk	Cotton, Peppers, Marigold	3.5-5km from 3 facilities
Chenguang Bio Kashgar Yopurgha	Yopurgha, Kashgar	Cotton, Marigold, Cumin	4km from prison; 7km from Detention complex
Chenguang Bio Shache ("Kashgar Morning Light")	Yarkant/ Shache, Kashgar	Peppers, Marigold, Chrysanthemum	6.5km from prison
Chenguang Bio Korla Bazhou Bayingolin	Between Korla and Karasharar	Peppers	17 km from Korla facilities
Chenguang Bio Karamay	Wuwuxenzhen, Karamay	Cotton	44km from Shihu & Kuyton
Grape sourcing	Turpan	Grapes	

Key Questions about IFC's due diligence

- Does IFC know whether prisoners in facilities proximate to Chenguang Bio harvest crops that are used in the production of Chenguang Bio facilities? (e.g. do detainees in Yopurgha, Tumuxuk or Yarkant harvest cotton? do detainees in Yanqi harvest tomatoes?) IFC can request documentation of bills of sale and contracts with suppliers to field-validate. **IFC received "written statements from two cottonseed suppliers confirming that they do not use forced labor or child labor."** These have not been validated or verified in any way. Authorities have consistently maintained that laborers in poverty reduction schemes are "volunteers," though critics and escapees say coercion is persistent.^{lxviii} IFC declined to provide geolocation data for source inputs from farmers and traders. IFC declined to provide bills of sale that would demonstrate that purchase prices were market rates reflecting the labor costs incurred by operations paying fair wages.
- To evaluate the potential that vulnerable household members are harvesting crops in exploitative conditions (e.g. after breadwinners have been detained), does IFC know whether the agricultural workers in Chenguang Bio's supply chain are the longtime primary breadwinners of their households? The wage rates they earn for their crops? The age and gender breakdown of the agricultural workforce? Have they been targeted by government for 'poverty reduction' initiatives? A free labor force would demonstrate a mix of genders and exclusion of old and young.^{lxix} **IFC reports that workers range in age from 18 to 59 and are 86.1% male (IFC does not explain the surprising data that people aged 50-59 comprise a fifth of the workforce but that there were no seasonal workers aged 60 or older. IFC declined to clarify how its seasonal and permanent workforces are documented in the IJOP database to know what percentage were targeted by the poverty reduction program and whether there are outstanding complaints against any of their family members.**
- To evaluate whether Uyghur farms are being displaced by industrial agricultural tracts, does IFC know the acreage of Chenguang Bio's agricultural suppliers (including what percentage are small, Uyghur-owned farms versus acreage from large, industrial farms)? **IFC said it could report GPS coordinates of farmers and the incomes sent to them on a seasonal basis but declined to do so. IFC does not currently have insight into Chenguang Bio's supply chain for tomato skins or cotton seeds and thus cannot evaluate Chenguang's role in land conversion water diversion, or forced labor.**
- Chenguang's workforce increases by <30% during harvest. How does it recruit these workers? **IFC said it could report GPS coordinates of farmers and the incomes sent to them on a seasonal basis but declined to do so. Chenguang Bio says it uses local advertisements and labor recruiters but did not report whether any labor transfers had occurred.**
- How do Chenguang's agricultural suppliers source their seasonal contract labor? **IFC says these workers are sourced through labor brokers that Chenguang Bio oversees and assists in making direct payments to workers. IFC said it could supply sample pay slips demonstrating adequate payment for farmers in the supply chain but declined to do so.**

Figure 13 - Baidu error message, rejecting someone's social credit.
Claire Seungeun Lee 2019



Social Credit and Surveillance Technology^{lxx}

Baidu MCC

Chinese authorities have referred to parts of the detention and deradicalization program in Xinjiang as “Vocational Training.” They have used social credit technology to target individuals for such training, as well as using Baidu’s mapping technology to track Uyghur movements throughout Xinjiang. IFC’s description of its 2018 investment in Baidu’s microcredit company for gender (“Baidu MCC Gender”) notes that the investment focuses on funding tuition for “vocational training/educational institutions.” IFC states that lending is associated “with the development of its big data-based credit assessment methodology.” IFC’s senior loan facility is designed to be allocated to microloans to “women borrowers of the Company to finance their vocational training and education,” across China, to include frontier regions.^{lxxi} Similarly, IFC’s 2016 financing to Baidu MCC aimed to provide “financing to young people to support their vocational education, by using big data-based credit assessment methodology.”^{lxxii}

At present, Baidu’s loans to Xinjiang represent only 1% of its portfolio (Xinjiang is home to 1.8% of China’s population). Positively, this suggests that the program is not targeting Uyghurs for retraining. There is a risk, however, that Uyghurs are being excluded from opportunities to access Baidu’s microcredit program due to low social credit scores. IFC states that Baidu MCC’s credit assessment models “do not use any parameters related to whether a borrower is an ethnic minority or not.” This it leaves open the question of whether detention is a strike against a person’s credit. Uyghurs comprised 20% of arrests across China in 2017 despite being only 1.8% of the population. This level of structural discrimination could exclude Uyghurs from microcredit indirectly, perpetuating inequities.^{lxxiii} Algorithms need not know an applicant’s ethnicity to recognize an ethnic minority’s profile in a discriminatory society.

SimpleCredit Micro-lending Ltd

In June 2020 IFC approved a \$50 million loan to Simple Credit “to grow its digital agriculture lending... business primarily in frontier regions of China.” Because small agricultural operations are so closely tied to China’s surveillance efforts in Xinjiang, it is important that IFC conduct due diligence to know where its money is being invested and whether recipients of microfinance have voluntarily left previous work and entered the agricultural production chain willingly.^{lxxiv} IFC has confirmed that its SimpleCredit microloans have not been disbursed in Xinjiang to date. IFC should maintain a role in oversight of the portfolio to assure that these loans neither exclude ethnic minorities nor specifically target them. IFC observes that credit assessment models do not use ethnicity as a parameter but, as with Baidu, does not consider how structural discrimination would affect ethnic minorities’ credit scores

Key questions about IFC’s due diligence in social credit and surveillance tech investments

- Are recipients outside of Xinjiang – **YES. While SimpleCredit has no outstanding loans to farmers in Xinjiang, Baidu’s loans in Xinjiang represent 1% of its portfolio (Xinjiang is home to 1.8% of China’s population)**
- Have any recipients been detained or targeted for reskilling – **Unknown but unlikely. More probable that such individuals would be excluded from this program.**
- Have participants voluntarily sought microcredit for small business creation, education and training – **YES, in that individuals must subscribe to the technology and fill out the information themselves. Uncertain, in that coercion can be obscured in Xinjiang. Risks of Uyghur exclusion may be more likely than Uyghur coercion. Mitigation is not demonstrated.**
- Are not associated with government-sponsored “poverty alleviation” programs in Xinjiang – **NO, but low lending rates in Xinjiang suggest they are not.**
- If the funds are used for education, can IFC provide a list of vocational/educational facilities where funds are spent? **NO. Two examples are offered (English language school and technical/IT vocational school) but a list is not.**

Chint New Energy and GCL-Poly

Five Chinese companies control two-thirds of the world's polysilicon market.^{lxxxv} They are: Tongwei, GCL-Poly, Daqo, Xinte and East Hope. All but Tongwei operate in Xinjiang. These firms were credibly linked to forced labor in manufacturing in late 2020, involving labor transfers of "poor workers from Xinjiang," military-style patriotism training, and mandatory Mandarin classes and labor reskilling.^{lxxxvi} Several also source electricity from Xinjiang through the coal mines and coal-fired power plants in the region operated by the XPCC.^{lxxxvii} The US government has issued sanctions against the XPCC for its involvement in gross human rights violations in Xinjiang. A major explosion at a GCL-Poly facility in Xinjiang in July 2020 raised questions about its labor recruitment approaches, as the work requires highly skilled labor, and the region is unappealing to talented and experienced workers.^{lxxxviii} In GCL-Poly's 2020 annual report, it reported that it had initiated a "staff localization plan" in Xinjiang in 2019 in cooperation with vocational schools. As recently as March 2020, GCL received a

transfer of "surplus laborers" from southern Xinjiang.^{lxxxix}

IFC is exposed to GCL-Poly through Chint New Energy, having recently divested from a second client operating in the region (see "IFC's divestments since No-moGaia's investigation began," below).^{lxxx} In 2017, IFC issued a \$50 million loan to Chint New Energy Development for "development and construction of CNE's downstream solar projects in emerging markets outside of China, such as Turkey, Pakistan and Thailand." IFC states explicitly that its funds "will not be used for solar projects in China or PV panel manufacturing projects." Money is fungible, however, so it is difficult to divorce IFC funding from Chint's activities in China, particularly PV manufacturing for a planned expansion of its energy portfolio. A year after closing on IFC's loan, in 2018, Chint spent 703m yuan (US \$106m) to buy out all PV power assets of Longi Green Energy.^{lxxxi} Longi sources its polysilicon from GCL-Poly.^{lxxxii} Chint New Energy signed a long-term sourcing agreement with GCL-Poly in 2019.

IFC currently reports that its Chint financing is only designated for projects in Turkey. Chint New Energy's major contribution to the Turkish grid to date (separate from its parent company's investment in coal power at the Huntlu plant) is a 70MW facility in the south of the country.^{lxxxiii} IFC's investment in a Turkish solar plant in 2017 using technology sourced from a Hangzhou-based company does not, on its face, look like a high-risk investment. Indeed, the indications of risk only mounted steadily over time, as photovoltaic supply chains have consolidated and materials sourcing is increasingly located in Xinjiang. Chint's risk profile was potentially lower in 2016 when the project was disclosed than it is today. But Chint's business deals should be the subject of heightened scrutiny in IFC's continued relationship with the firm, which is not scheduled to sunset for several more years.

Any future investments supported by the IFC loan should consider the relationships the company has built in ensuing years, not merely the status of the firm in 2016

Key questions about IFC's due diligence in mining and energy production investments

- What due diligence has IFC done on polysilicon and monocrystalline silicon wafer sourcing facilities in Xinjiang? **None.**

IFC Xinjiang projects recently divested

In addition to the projects described above, IFC has divested from one project in the third quarter of 2019 and two additional projects since NomoGaia first reached out to the bank in November 2020. These divestments are an encouraging sign of growing attention to the issues in Xinjiang, as is the absence of new lending in the region.

Canadian Solar and CGL Poly

In 2016, IFC invested \$20m in equity and made a \$40m loan to Canadian Solar.^{lxxxiv} Canadian Solar operates a manufacturing facility in a joint venture with CGL-Poly (described above), and signed a long-term sourcing agreement for photovoltaic materials with CGL-Poly in 2019. Using materials sourced from CGL-Poly, Canadian Solar operates a 30-MW solar farm near Tumxuk in Xinjiang, installed on 100 hectares of land, the acquisition of which is not covered by PS5 or PS7 in IFC disclosures.^{lxxxv} Canadian Solar has not disclosed how this electricity is used, but the solar farm is located proximate to several detention facilities. IFC disclosures make no mention of Canadian Solar's presence in Xinjiang, raising questions of how comprehensive external analysis of IFC's Xinjiang footprint may be.

As of March 9, 2021 the investment is still described as 'active' in public disclosure. IFC reports that its loan matured and it ended its equity investment in 2020.



Figure 14 - Canadian Solar's solar fields at bottom, outlined in red. Detention facilities at center and top-left, denoted by red thumbtack icons

COFCO Noble, Nidera-COFCO, Noble-COFCO

COFCO is China's largest food producing company. IFC invested over \$175m in equity in COFCO's international subsidiaries, Noble and Nidera, between 2014 (\$140m) and 2016 (\$36m) – a substantial agricultural investment by IFC standards. COFCO is state-owned, and IFC's minority equity ownership, while large by IFC loan standards, was a small fraction of the company. IFC summary documents suggest that IFC had vetted COFCO's Latin American operations for supply chain risks and potential impacts on indigenous peoples but had considered no comparable risks in COFCO's Xinjiang operations.

IFC has said it bypassed due diligence in China because IFC's investments were to support COFCO's acquisition of Noble and Nidera, which are traders based outside of China. But COFCO's acquisition of these firms was specifically aimed at integrating Chinese operations with global businesses. When announcing the full acquisition of Noble in January 2016, COFCO described Noble as its "overseas purchase platform... linking its upstream origination and trading operations with the downstream processing and distribution capabilities." As early as May 2015, COFCO had articulated that its domestic business would merge into COFCO International: "Currently, the integration has started and in the future COFCO International will be the platform to integrate related business to make it a global agribusiness company which operates from upstream to downstream products."^{xxxvi}

Knowing this, IFC would be expected to undertake due diligence on the equity investment into the firm at large, including in mainland China. The majority of COFCO's tomato business is in 13 Xinjiang facilities, which directly participate in government poverty alleviation programs. The company's annual report indicates it also made donations to Aksu's Wushi County government for vocational skills training, low-income housing, tomato industry development and a security patrol car.^{xxxvii} IFC states that it signed an agreement to sell shares in COFCO international "back to COFCO Group," which was pending finalization in March 2021.

Xinjiang Goldwind

IFC held equity in Xinjiang Goldwind from October 2010 until September 2019. IFC's 2019 divestment predates NomoGaia's engagement on these issues, but it occurred as news reports of a broadening state-sponsored crackdown on Uyghurs had become pervasive. IFC was aware of Goldwind's close relationship to the government (it is a state-owned enterprise). Due diligence would have also exposed its relationship to the XPCC. As early as 2008, Goldwind was engaging with XPCC branch of the Agricultural Bank of China for a line of credit (3 billion yuan for 24 months).^{xxxviii} There were few public interactions between the two between 2010 and 2019.

IFC's divestment from Goldwind came on the heels of a sudden flurry of news reports about Goldwind and XPCC. In June 2019 Goldwind attended a strategic cooperation agreement signing between XPCC, the Uyghur Region government, and the Chinese export-import company, Sinosure, in a joint commitment to make "greater contributions to the promotion of the local economic development in Xinjiang" and to "go global" and link Xinjiang to transnational business.^{xxxix} August 2019, the XPCC's online propaganda arm, bingtuanet.com, reposted a Xinhua editorial attributing Goldwind's success to collaboration with party initiatives.^{xc} IFC divested just two months later, on September 26. Goldwind's relationship with the XPCC has grown more public since then.^{xci}

However, on September 16, days before IFC's update to the project public documentation, IFC disclosed investments in four Pakistani wind projects that would all use Goldwind turbines (two additional Pakistani wind power investments were also announced that day. Both were re-investments from earlier loans dated to 2013 and 2016 – Tricom).

Investment	Turbine Maker	Reinvestment Y/N	IFC loan value	Disclosed date	Status
Din	Goldwind	N	\$12.95m	16 Sept 2019	Pending Disbursement
Artistic	Goldwind	N	\$12.76m	16 Sept 2019	Pending Disbursement
Act II	Goldwind	N	\$12.81m	16 Sept 2019	Pending Disbursement
Gul Ahmed	Goldwind	Y (Nordex turbines 2014)	\$12.75m	16 Sept 2019	Pending Disbursement
Tricom	Gamesa/Seimens	Y (GE turbines 2016)	\$13.04m	16 Sept 2019	Active: 30 Oct 2020
Metro	Gamesa/Seimens	Y (Nordex turbines 2013)	\$20.53m	16 Sept 2019	Active: 25 Nov 2020

IFC would have faced challenges divesting publicly from Goldwind, so if creative diplomacy were at work in the issuance of small loans supporting support China's broader electrification agenda through Goldwind to enable a smooth divestment, this might be one of the most interesting IFC investments and divestments in the IFC portfolio. If IFC did indeed find a diplomatic way to extract itself from a state-run business that posed human rights and reputational risks, it might be a model for other divestitures in regions where the political context makes responsible business conduct impossible to assure.

Conclusion

The research for this report was conducted remotely. Authors do not speak Uyghur or Mandarin and heavily relied on Google Translate and secondary sources. As such, this work could have been easily and quickly conducted by IFC and should have been supplemented with robust field validation of any claims clients made about the PS7 applicability and/or compliance of their operations. It is possible that IFC's investments in Xinjiang have not contributed to cultural erasure of Uyghurs and other ethnic minorities. However, the Uyghur situation in Xinjiang is grave and demands an extraordinary response. Numerous countries and institutions have taken the extreme step of total boycott, cutting off all ties with the system that is intentionally destroying the Uyghur people and culture. In contrast, the IFC has not safeguarded the indigenous right to Free, Prior and Informed Consent in any of its Xinjiang investments and taken no public steps to demonstrate that the due diligence and risk management approaches, which feature prominently in its Performance Standards, have been pursued.

In the face of genocide, this position is untenable and must change. IFC should, first, recognize and condemn the actions constituting this genocide. Second, it should conduct *and publish* genuine, focused, effective due diligence to determine if its financings are complicit in the Uyghur oppression. Unless definitively disproved, the presumption in these investigations must be that IFC clients are contributing to and/or benefitting from the abuses. Written and verbal statements from clients asserting that risks are absent are inadequate to verify on-the-ground conditions in the Xinjiang context. Third, no new IFC financings in Xinjiang in any form should occur until these investigations are complete. Finally, any loans which do not pass muster under these standards should be terminated to the extent legally possible in accordance with their terms and with IFC's Performance Standards. Until the ongoing oppression is stopped, reversed, and remedied, under its own stated values and the shared human rights values of the international community, the IFC should divest from Xinjiang.

While IFC retains its public silence on the situation in Xinjiang, it has quietly taken some steps to increase oversight and reduce its exposure in the region. Divestment from Xinjiang Goldwind, Canadian Solar and COFCO are the most compelling examples. The actions indicate that IFC is capable of divesting from the region and has ongoing concerns. If IFC is pursuing subtle signals for political reasons, it should nevertheless implement them more broadly across its Xinjiang portfolio or else very publicly demonstrate how it has determined its involvement is not linked to pervasive Uyghur rights abuses.

In too many investments, IFC has been unable to produce documentation to demonstrate that risks of forced labor, ethnic erasure and marginalization are managed. When asked for detailed documentation to demonstrate oversight, IFC was only able to provide partial responses. IFC assertions that it has heightened its reporting requirements for Chenguang Bio and begun tracking payments from labor brokers to small farmers could not be validated, as no documentation of this was made available. Meanwhile, the Chinese state continues to commend Chenguang Bio for its participation in the Xinjiang IJOP and other surveillance and population control efforts.

Passive approaches to project monitoring are a recurring challenge in development finance. In a context like Xinjiang they are utterly untenable.

- https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/42946/Byler_washington_0250E_19242.pdf
- xiv In 2015, before the mass arrests began, residents lamented that, despite the ubiquity of CCTV in their neighborhoods, authorities did not use the feeds to catch thieves and criminals. The function of the surveillance technology as a tool of cultural repression did not become clear until later. (Byler, 2018)
- xv Hoja, Gulchera and Finney, R. Xinjiang Cotton Production Falls as Uyghur Farmers are Diverted from their Work. Radio Free Asia. 2 November 2015. <https://www.rfa.org/english/news/uyghur/cotton-11022015150508.html>
- xvi At least 341 have been identified and geolocated by the Xinjiang Data Project out of the Australian Strategic Policy Institute. <https://xjdp.aspi.org.au/map/> These sites can be identified on Google Earth and maps.google.com but are blurred out in Chinese mapping tools like amap.com
- xvii Kirby, Jen. Concentration camps and forced labor: China's repression of the Uyghurs, explained. Vox. 28 July 2020. <https://www.vox.com/2020/7/28/21333345/Uyghurs-china-internment-camps-forced-labor-xinjiang>
- xviii Mozur, Paul and Perlroth, Nicole. China's Software Stalked Uyghurs Earlier and More Widely, Researchers Learn. New York Times. 1 July 2020. <https://www.nytimes.com/2020/07/01/technology/china-Uyghurs-hackers-malware-hackers-smartphones.html>
- xix Canadian and Australian inquiries have concluded that China's population controls and other efforts to eradicate Uyghur culture amount to genocide. In October 2020 and November 2020 the US Senate and Japanese parliament, respectively, proposed bills that would draw a similar conclusion. In January 2021 the US State Department officially termed the abuse "Genocide"
- xx Asat, Rayhan and Diamond, Yonah. The World's most technologically sophisticated genocide is happening in Xinjiang. Foreign Policy. 15 July 2020. <https://foreignpolicy.com/2020/07/15/Uyghur-genocide-xinjiang-china-surveillance-sterilization/>; Ramzy, Austin and Buckley, Chris. "Absolutely no mercy": Leaked files expose how China organized mass detentions of Muslims. New York Times. 16 November 2019. <https://www.nytimes.com/interactive/2019/11/16/world/asia/china-xinjiang-documents.html>
- xxi CSIS
- xxii Zenz, Adrien. Coercive Labor in Xinjiang: Labor Transfer and the Mobilization of Ethnic Minorities to Pick Cotton. Intelligence Brief, Center for Global Policy (CGPolicy). December 2020. <https://cgpol-icy.org/wp-content/uploads/2020/12/20201214-PB-China-Zenz-1-3.pdf>
- xxiii Lehr, Amy and Bechrakis, Mariefaye. Connecting the Dots in Xinjiang: Forced Labor, Forced Assimilation, and Western Supply Chains. CSIS. 16 October 2019. <https://www.csis.org/analysis/connecting-dots-xinjiang-forced-labor-forced-assimilation-and-western-supply-chains>
- xxiv OHCHR. Committee on the Elimination of Racial Discrimination Concluding observations on the combined fourteenth to seventeenth periodic reports of China (including Hong Kong, China and Macao, China). CERD/C/CHN/CO/14-17 30 August 2018 https://tbinter-net.ohchr.org/Treaties/CERD/Shared%20Documents/CHN/CERD_C_CHN_CO_14-17_32237_E.pdf
- xxv Zenz, CGPolicy, 2020
- xxvi Zihao, Li and Huhu, Hu. Our main cotton producing areas in the Mainland no longer need to import workers. Xihua News Agency. 18 November, 2018. Google Translate and Archive.is http://www.xinhuanet.com/2018-11/18/c_1123731240.htm <https://archive.is/qR1Hp> as referenced in Zenz, CGPolicy, 2020
- xxvii Zenz, Foreign Policy, 2019.
- xxviii AP. China cuts Uyghur births with IUDs, abortion, sterilization. 28 June 2020. <https://apnews.com/article/269b3de1af34e17c1941a514f78d764c>; On January 6 and 7 the Chinese Embassy in the US tweeted the results of a "study" that purported to show that Beijing's population control efforts resulted in "the overall improvement in population quality." A second tweet, claiming that sterilization "liberated" Uyghur women's minds, was deleted by Twitter for violating platform rules. The summary reads "The natural growth rate of population in Xinjiang decreased from 11.4 per 1,000 people in 2017 to 6.13 per 1,000 people in 2018." It cites 'family planning' as well as changed 'mindsets' on procreation, coupled with reduced religiosity. http://www.xinhuanet.com/english/2021-01/07/c_139649763.htm
- xxix Zizhong Xu, Vicky, Cave, Danielle, Leibold, James, Munro, Kelsey, Ruser, Nathan. Uyghurs for Sale: reeducation and forced labor beyond Xinjiang. Australian Strategic Policy Institute (ASPI). March 2020. <https://www.aspi.org.au/report/uyghurs-sale>; there are also numerous reports by Uyghurs who have fled that their families refuse to speak to them for fear of retaliation, knowing that their communications are surveilled and that contact with people outside of Xinjiang is punished with imprisonment.
- xxx Feng, Emily. China Targets Muslim Scholars and Writers with Increasingly Harsh Restrictions. NPR. 21 November 2020. <https://www.npr.org/2020/11/21/932169863/china-targets-muslim-scholars-and-writers-with-increasingly-harsh-restrictions>; Shepherd, C. Fear and oppression in Xinjiang: China's war on Uighur culture. Financial Times. 11 Sept 2019.
- xxxi See, e.g., Dina Nurdybai, profiled in: Killing and Rajagopalan, BuzzFeed, 2020.
- xxxii Referred to as the Pairing Assistance Program, which required 19 eastern provinces and municipalities to devote 0.3-0.6% of annual revenues to development in a Xinjiang sister-city, and to deploy personnel as advisors. The resulting top-down, capital-intensive projects did not reflect the skills or interests of local residents and met with resistance, particularly among communities that did not speak Mandarin (Milward and Peterson, Brookings, 2020).
- xxxiii Milward and Peterson, Brookings, 2020
- xxxiv Xiuzhong Xu et al, ASPI, Uyghurs for Sale, 2020
- xxxv China reports that Xinjiang alone produces ¼ of the world's ketchup. http://www.xinhuanet.com/english/2019-09/12/c_138387065.htm; Swanson, Ana. US Bans all cotton and tomatoes from Xinjiang Region of China. New York Times. 13 January 2021. <https://www.nytimes.com/2021/01/13/business/economy/xinjiang-cotton-tomato-ban.html>
- xxxvi Large Chinese companies engaged in "poverty alleviation programming" in Xinjiang have accused of using forced labor (Lehr, CSIS, 2019); Eva Dou and Chao Deng, "Western Companies Get Tangled in China's Muslim Clampdown," Wall Street Journal, May 16, 2019, <https://www.wsj.com/articles/western-companies-get-tangled-in-chinas-muslim-clampdown-11558017472>
- xxxvii "Shache has organized civil servants at all levels to provide pairing assistance for registered impoverished households. Capable and experienced officials in the county have offered pairing assistance to over 10,000 impoverished households. For the households that have already been lifted out of poverty, the county required responsible officials to check risks of their relapsing into poverty with the help of a local poverty alleviation big data platform." http://www.xinhuanet.com/english/2020-09/21/c_139384944.htm; <https://lapost.us/?p=25891>
- xxxviii Interview with Amnesty International's China bureau, December 2020. Also attributable to Zenz, Foreign Policy, 2019. Also attributable to David Schilling, senior program director of human rights and resources at the Interfaith Center on Corporate Responsibility:

"Within the context of labor, a red flag goes up for every single sector. It's not just those [industries] that have been called out."

^{xxxix} Cave, Danielle, Ryan, Fergus, Xiuzhong Xu, Vicky. Mapping China's Tech Giants. ASPI <https://www.aspi.org.au/report/mapping-more-chinas-tech-giants>; Xinjiang received the largest share of funding and of projects (7 of the 42), including the wholesale roll-out of 'safe city' technology across the municipalities of Zhundong at a new 'economic and technological development zone', upgrading surveillance across all of Yutian county, and creating the full infrastructure for surveillance in Tacheng, near the Khazak border (this project alone was budgeted for over 200m yuan). (SOHU. "42 PPP Projects totaled 21.1 Billion," Seven Transportation Network, 17 June 2017, https://www.sohu.com/a/149762456_654086) <https://web.archive.org/web/20131108042516/http://www.d1net.com/wl/solution/223809.html>

^{xl} The XPCC exercises state and police powers and was founded as a colonizing force to "increase the Han population" in the Uyghur homeland. Its brutal abuses and forced labor practices in Xinjiang are supported by its global operations, comprising over 850,000 companies in 147 countries. <https://uhrp.org/uhrp-reports-and-briefings/explainer%E2%80%94things-know-about-bingtuan>; Many Han Chinese don't mind the gulag for their Uyghur neighbors. The Economist. 11 January 2020. <https://www.economist.com/china/2020/01/09/many-han-chinese-dont-mind-the-gulag-for-their-Uyghur-neighbours>

^{xli} Lehr, CSIS, 2019

^{xlii} Howell, A. and Fan, C.C. Migration and Inequality in Xinjiang: A Survey of Han and Uyghur Migrants in Urumqi. *Eurasian Geography and Economics* 2011:52(1): 119-139. <https://geog.ucla.edu/sites/default/files/users/fan/403.pdf>

^{xliii} Two regulations amending legal practices in 2016 prohibited lawyers from taking clients who subvert the Party's leadership, both by making it a crime to defend such people and by installing Party members to manage firms. These changes have made it de-facto illegal to take the cases of ethnic minorities. US Congressional-Executive Commission on China. Five Years after 709 Crackdown, Lawyers continue to face repression and punishment. 9 July 2020. <https://www.cecc.gov/publications/commission-analysis/five-years-after-709-crackdown-lawyers-continue-to-face-repression>

^{xliiv} Johnston, J.E.; Hricko, A. "Industrial Lead Poisoning in Los Angeles: Anatomy of a Public Health Failure". *Environmental Justice*. 10 (5): 162–167, 2017. doi:10.1089/env.2017.0019; LA Times California sues to recover costs for Exide lead cleanup. 19 Dec 2020; Montgomery, J. Covid-19 drives battery maker Exide back into bankruptcy. Law360.com

^{xliv} The most rigorously researched peer reviewed publication on the subject, carbon dated the oldest functioning systems to the early 1400s centuries before the Qing Dynasty entered the region, and during a time of Uyghur self-rule. Mächtle B. et al. (2019) The Age and Origin of Karez Systems of Silk Road Oases around Turpan, Xinjiang, P.R. of China. In: Yang L., Bork HR., Fang X., Mischke S. (eds) *Socio-Environmental Dynamics along the Historical Silk Road*. Springer, Cham. https://doi.org/10.1007/978-3-030-00728-7_17

^{xlvi} Abudu, Shalamu, Sheng, Zhuping, Cui, Chunliang and Guan, Donghai. The Karez System in China's Xinjiang Region. Middle East Institute. 17 January 2014. <https://www.mei.edu/publications/karez-system-chinas-xinjiang-region>

^{xlvii} Lipes, RFA, 2017

^{xlviii} Sulaiman, Eset and Lipes, Joshua. Exploitation Puts Ancient Well System at Risk in Uyghur Region. Radio Free Asia. 27 April 2017. <https://www.rfa.org/english/news/uyghur/wells-04272017165849.html>; for touristic exploitation see: <https://m.visitourchina.com/turpan/attraction/karez-well-system-turpan.html>

^{xlix} Much of the hydrology describes the Turpan Oasis at large, with a great deal of focus on the Flaming Mountains, 50km away and not demonstrably linked to the conditions in Toksun.

^l XPCC's announced plans to develop a third power station in the Dananhu coal field south of Hami. <https://web.archive.org/web/20180818224656/http://www.bthxfd.com/gsgk.shtml>

^{li} Hami is the site of escalating tensions and militarization. Topol, Sarah. Her Uyghur Parents were Model Chinese Citizens. It Didn't Matter. *NYTimes Magazine*. 29 January 2020. <https://www.nytimes.com/2020/01/29/magazine/uyghur-muslims-china.html>

^{lii} An extremely basic description of Magnesium processing is available through Britannica. <https://www.britannica.com/technology/magnesium-processing>

^{liii} Zili, Xu and Xianzhen, Ma. The non-compliance of the two subsidiaries of Jointown in Xinjiang is now traditional Chinese medicine decoction pieces (九州通两子公司新疆抽检现不合规 均为中药饮片产品). *China Economic Net*. 15 May 2020. https://www.sohu.com/a/395431639_120702

^{liv} Surprised by the State Drug Administration's Major Scandal, Xinjiang Jiuzhoutong illegally sold several billion yuan (又惊国家药品监督特大丑闻 新疆九州通非法卖药几十亿元). 4 October 2010. http://blog.sina.com.cn/s/blog_6b980b6e0100lrs1.html

^{lv} Shanghai Securities News. The delivery of basic medicines does not meet the standards, Sinopharm Holding Jiuzhou Tong Xinjiang encounters "Waterloo". 17 May 2013. (基药配送不达标 国药控股九州通新疆遇“滑铁卢”) <http://www.yygj.com/info/2013-05/15774.html>

^{lvi} State Bureau of Human Resources and Social Security. Announcement on Xinjiang Yili Jiuzhoutong Pharmaceutical Co., Ltd. [Jointown] and other 292 companies applying for job stabilization subsidies in 2020. (关于新疆伊犁九州通药业有限公司等292家企业申请2020年度稳岗补贴的公示) <http://www.yili.gov.cn/info/2026/317414.htm>

^{lvii} EIA section 2.3.5 describes the industrial zone's water resources as the Hongshan and Angou Reservoirs. Academic literature describes these reservoirs as a driver for karez dewatering. Karez Research Association of Xinjiang Uyghur Autonomous Region, Karez in Xinjiang (Urumqi: Xinjiang People's Press, 2006); Chunliang Cui, Shalamu Abudu, Zhuping Sheng, Donghai Guan. The Karez System in China's Xinjiang Region. 17 Jan 2014. Middle East Institute. Washington DC http://www.mei.edu/publications/karez-system-chinas-xinjiang-region#_ftn4

^{lviii} IFC does not say whether Uyghurs hold leadership positions, leaving open questions of whether they are given low-level jobs with few opportunities for advancement.

^{lix} Mingfang, Y. Yanan, L. Liquan, H. Shache county in Xinjiang implements targeted poverty alleviation measures. *People's Daily*. 11 June 2020. <https://lapost.us/?p=25891>

^{lx} Lehr and Bechrakis. Connecting the Dots. P. 13

^{lxi} US Dept of Labor. ILAB Child Labor List. 2020. <https://www.dol.gov/agencies/ilab/reports/child-labor/list-of-goods-print>

^{lxii} Chenguang Bio. Promotional Video of Marigold Harvesting. https://v1.cecdn.yun300.cn/100001_1901295184/%E4%B8%87%E5%AF%BF%E8%8F%8A1564098332515.mp4

^{lxiii} ASPI Xinjiang Data Project <https://xjdp.aspi.org.au/map/?marker=3417> In May and August 2017, bid requests for Yopurgha's "Legal system transformation through education school" (法制教育转化学校) included "surrounding wall and fence" as well as "guard room". <https://www.tandfonline.com/doi/abs/10.1080/02634937.2018.1507997?journalCode=ccas20> https://www.fmprc.gov.cn/mfa_eng/wjbxw/t1846454.shtml

^{lxiv} https://topic.echemi.com/a/morningham-accounts-for-more-than-half-of-the-worlds-chili-red-pigment-extraction_5e5fe0d78b83f7500c768596.html

^{lxv} <https://www.amnesty.org/en/latest/news/2018/09/china-up-to-one-million-detained/>

^{lxvi} Call with the author, November 2020

^{lxvii} Zenz,

^{lxviii} Buckley, C and Ramzy, A. Inside China's Push to Turn Muslim Minorities into an Army of Workers. New York Times. 30 Dec 2020.

^{lxix} Since 2017 whistleblowers have reporting recruitment of women and children into the cotton fields after breadwinners were detained. Their work is characterized as 'poverty reduction' or a remedy for unemployment <https://www.refworld.org/docid/5a9427b4a.html>

^{lxx} Image from "Datafication, dataveillance, and the social credit system as China's new normal"

^{lxxi} IFC Project Disclosure. Baidu MCC Gender <https://disclosures.ifc.org/#/projectDetail/SII/40399>; Claire Seungeun Lee has evaluated risks associated with social credit surveillance in: Datafication, dataveillance, and the social credit system as China's new normal, Online Information Review, 2019. https://www.researchgate.net/figure/Baidu-Tieba-rejection-of-social-credit-shehui-xinyong_fig1_332956897

^{lxxii} IFC Project Disclosure. Baidu MCC Loan <https://disclosures.ifc.org/#/projectDetail/SII/38237>

^{lxxiii} E.g. Perry V.G. (2019) A Loan at Last? Race and Racism in Mortgage Lending. In: Johnson G., Thomas K., Harrison A., Grier S. (eds) Race in the Marketplace. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-11711-5_11

^{lxxiv} IFC Project Disclosure. Simple Credit Loan. <https://disclosures.ifc.org/#/projectDetail/SII/42086>

^{lxxv} Copley, Michael. Human rights allegations in Xinjiang could jeopardize solar supply chain. S&P Global Market Intelligence. 21 October 2020 <https://platform.mi.spglobal.com/web/client?auth=inherit#news/article?id=60829945&cid=A-60829945-9264>

^{lxxvi} <https://www.nytimes.com/2021/01/08/business/economy/china-solar-companies-forced-labor-xinjiang.html>

^{lxxvii} <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/human-rights-allegations-in-xinjiang-could-jeopardize-solar-supply-chain-60829945>

^{lxxviii} GCL-Poly experienced a massive explosion in Summer 2020, taking a 50,000 MT facility out of service for at least 6 months. Although GCL-Poly is a publicly traded company listed on the Hong Kong stock exchange, it has not reported the event and there is no media coverage of the disaster (no photos, videos, injury reports). However, the blast affected global polysilicon production substantially and triggered price shocks across the industry. Analysts point to GCL's difficulty "to attract enough highly qualified staff to the remote area" in Xinjiang.

^{lxxix} Horizon Advisory. CCP Forced Labor Series – Draft report on the Polysilicon industry, referencing Worker Times. Transfer Labor to Ensure that Poor Laborers in Southern Xinjiang Get Rid of Poverty and Become Rich. 23 March, 2020. 转移就业保障南疆贫困劳动力脱贫致富

^{lxxx} Until recently, IFC had a second exposure to GCL-Poly, though its 2016 investment in Canadian Solar. It had a \$40m loan and \$20m equity investment in the firm (<https://disclosures.ifc.org/#/projectDetail/ESRS/36142>). As of Feb 8, 2020 it is still listed as active on IFC's website, though personnel familiar with the investment report that it has been divested. Canadian Solar operates a manufacturing facility in a joint venture with GCL-Poly, and signed a long-term sourcing agreement for photovoltaic materials with GCL-Poly in 2019. Using materials sourced from GCL-Poly, Canadian Solar operates a 30-MW solar farm near Tumxuk in Xinjiang, installed on 100 hectares of land, the acquisition of which is not covered by PS5 or PS7 in IFC disclosures

^{lxxxi} Editor. Longi Sells Off Distributed PV Power Assets. EnergyTrend 6 July 2018. <https://m.energytrend.com/news/view/12376.html>

^{lxxxii} Longi and Zhonghuan secure granular polysilicon from GCL February 03, 2021 <https://www.bernreuter.com/newsroom/polysilicon-news/article/longi-and-zhonghuan-secure-granular-polysilicon-from-gcl/>

^{lxxxiii} <http://energy.chint.com/upload/ueditor/file/20200224/1582523904998337.pdf> p. 33 <https://chintglobal.com/news/chint-empower-the-hunutlu-power-plant-in-turkey-15-288>

^{lxxxiv} IFC Disclosure. Canadian Solar. <https://disclosures.ifc.org/#/projectDetail/ESRS/36142>

^{lxxxv} Green, David and Vanderklippe, Nathan. Canadian firms operate in China's Xinjiang region. The Globe and Mail. 18 January, 2021. <https://www.theglobeandmail.com/world/article-canadian-firms-operate-in-chinas-xinjiang-region/>

^{lxxxvi} Reuters. New global grain giant takes shape with Cofco, CIC venture. 13 May 2015 <https://www.reuters.com/article/cic-cofco-venture/new-global-grain-giant-takes-shape-with-cofco-cic-venture-idUKL1N0Y40ES20150513>

^{lxxxvii} Dou and Deng, WSJ, 2019; Lehr, CSIS, 2019

^{lxxxviii} 新疆金风科技股份有限公司第三届董事会第七次会议决议公告 <http://finance.sina.com.cn/stock/s/20080414/22012145396.shtml>

^{lxxxix} 新疆、兵团与中国信保签署战略合作协议 2019-06-19 https://www.sohu.com/a/321650794_114731

^{xc} 党建已成新疆企业经营发展中靓丽风景 2019-08-02 <http://old.bingtuannet.com/c/2019-08-02/7258057.shtml>

^{xci} 师市与新疆金风科技股份有限公司签订战略合作框架协议 2020-12-13 <https://archive.ph/120Hj>; 智慧风储项目最低报价1700元/kW！中广核650MW风电项目中标候选人结果公示 2022-05-26 <https://archive.ph/aOvKX>