

Block 4 – Environmental (and social) problems reported in the Cambodian garment industry, and its textile supplier, and holding links with UK's apparel retailers.

This forth module of the consultancy research focuses on identified controversial environmental (and social) practices that can be associated with UK's imports of apparel from Cambodia garment manufacturers and their transnational supply chain. The first part begins with quantitative data about industrial pollution estimates linked with garment production in Phnom Penh - which previous research found concentrating the vast majority of garment factories -, before quickly mentioning problems regarding management of solid waste. This opens to a new initiative analyzed in the second part led by the Chip Mong Group that is (doubtfully) promoted as a sustainable business practice in the country. The third section starts with a summary of the reported controversies found in third module regarding Cambodian factories with both ownership links and supply relationships with UK entities, and then adds reported problems of two other Cambodian factories supplying major UK apparel retailers. The forth part, considers Cambodia's dependency of textile importation from China – examined in module 2 – and although lack of disclosure hampers the identification of clear corporate supply relationships, considerations are provided about China's environmental degradation linked to cotton production. The last part focuses on the world's biggest maker of clothes, which Cambodian factory supplies three major UK apparel retailers (examined in module 3), and identifies three other subsidiaries within its corporate structure and two suppliers that have reportedly been connected with environmental and social abuses.

1. Environmental issues associated with the Cambodia garment industry

A study published in 2018 analyzes official data provided by the Ministry of Industry and Handicraft in Cambodia about industrial pollution in Phnom Penh between 1994 and 2014¹. It found very concerning data about the role of the textile and apparel sector in polluting the capital city over the 20-years period.

By the end of 2014, nearly 70% of industrial factories in Phnom Penh were involved in textile and apparel sector which were responsible for:

- 98.56% of the total toxic chemicals pollutant - *a very large group of chemicals, including benzene, toluene, xylene, chloroethane and chloromethane, and pesticide residues, etc.* - released to the environment, estimated at 201,054 megagram (Mg), of which 164,077 Mg into the air, 36,963 Mg into the land, and was the second largest chemical polluter into the water (no figures provided)
- 68.34% of the total toxic metal pollution - *Al, V, Zn (fume or dust), Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Ag, and their compounds, thallium, thorium dioxide and titanium tetrachloride* -, estimated at 733 Mg, of which 34 Mg into the air, 6 Mg into the water and 693 Mg into the land
- 91.72% of total air pollution, estimated at 234,129 Mg, while other measurements made textile and apparel sector releasing 23,354 Mg (80.62%) of sulfur (IV) oxide; 9663 Mg (74.25%) of nitrogen (IV) oxide; 185,458 Mg (98.07%) of volatile organic carbon; and 13,894 Mg (92.09%) Total Suspended Particulate

The study also provides a projection of Phnom Penh's total pollution by 2030, for which the textile and apparel sector is estimated to increase up to 682,620 Mg.

The literature review indicates that one of the most harmful impacts caused by garment manufacturers in Cambodia is connected to solid waste. Considering the situation in Phnom Penh, studies link the huge challenges in waste management to various factors, including lack of proper waste collection and treatment facilities, but also absence of technical staff and unclear responsibilities following the decentralization process that shifted waste-related duties from the provincial and district authorities to local levels².

¹ Vibol San, Vin Spoann, Johannes Schmidt, Industrial pollution load assessment in Phnom Penh, Cambodia using an industrial pollution projection system, Science of Total Environment 615 (2018) 990 – 999 <https://doi.org/10.1016/j.scitotenv.2017.10.006> 0048-9697 / 2017 Published by Elsevier B.V.

² Rajeev Kumar Singh, Dickella Gamaralalage Jagath Premakumara, Ran Yagasa and Kazunobu Onogawa, State of Waste Management in Phnom Penh, Cambodia, 2018 p. ii https://www.ccet.jp/sites/default/files/2018-07/State%20of%20Waste%20Management%20in%20Phnom%20Penh%2C%20Cambodia%20_web.pdf; See also Global Business

Besides the rapid population growth, the capital city has witnessed an increase of waste streams from hazardous waste, industrial waste and construction and demolition waste in recent years³. With regards to industrial factories in Phnom Penh and nearby provinces, data estimations on solid waste volumes point that the majority is related to garment and textile waste, which is often not properly stored and managed, i.e. resulting in frequent mixing of industrial waste with general waste⁴. Another paper estimates that the city's 83.3% of the solid waste is disposed at Dangkor landfill⁵.

Reports about small organizations' efforts in upcycling garment waste point out that such initiatives are hampered by lack of access and transparency in the industry. The dominant sub-contracting garment system in Cambodia indeed implies that brands do not own the factories where they ship fabrics, and factories with little visibility have no interests in types and amounts of fabrics left over⁶. In this regard, an industry insider indicate that lack of incentives is key as in many cases it's simply cheaper for producers to dump waste due to low fees for industrial disposal⁷.

In previous research work, the Commissioner of this study and his colleagues have already investigated environmental and human costs associated with the disposal of garment waste from factories to dump sites as well as to brick kilns⁸. Rather than replicating these explored research patterns, the following part looks at a new trajectory of the garment's solid waste cycle connected to environmental impacts in an ecological hotspot in the southern part of the country and links to another dominant sector of the Cambodian economy.

2. Costs of burning garment waste for cement production in Cambodia

In December 2019, Chip Mong Insee Cement, the subsidiary of Chip Mong Group, started an industrial facility that is capable to reportedly process 10 tons of waste from garment and footwear per hour, equivalent to 7,000 tons per month⁹. Media adds that Chip Mong collects industrial waste from companies in Preah Sihanouk province and the Phnom Penh Special Economic Zone¹⁰. Although the industrial waste facility is reported as a milestone for Cambodia's efforts towards a sustainable industrial development, questions can be raised about the environmental impacts of burning (likely untreated) tons of garment and footwear industrial waste, including carbon and other toxic pollutant emissions.

In addition, Chip Mong reportedly collects garment waste to supply kilns for cement production in Kampot¹¹, an industrial plant that is a 60-40% joint venture with minority stakes held by the Thaiandese Siam City Cement Corporation¹². Although Chip Mong's cement plant has been considered as one of the relatively less harmful producers in the booming cement industry in the province¹³, concerns have been raised about impacts on biodiversity and wildlife due to the growing number of factories that are destroying habits, ecosystems, as well as site of cultural relevance hosted in the karst mountains of Kampot¹⁴. In the past,

Network Program, Partnership Ready Cambodia: Waste management, 2019,

https://www.giz.de/en/downloads/GBN_Sector%20Brief_Kambodscha_Waste_E_WEB.pdf

³ Rajeev Kumar Singh, et Al., State of Waste Management in Phnom Penh, Cambodia, 2018 p. ii

⁴ Rajeev Kumar Singh, et Al., State of Waste Management in Phnom Penh, Cambodia, 2018 p. 28

⁵ Global Business Network Program, Partnership Ready Cambodia: Waste management

⁶ Tom Starkey, Upcycling: Growing sustainability and diversity in Cambodia's garment sector, 20 May 2020,

<https://southeastasiaglobe.com/upcycling-cambodian-garment-sector/>

⁷ Tom Starkey, Upcycling: Growing sustainability and diversity in Cambodia's garment sector, 20 May 2020,

<https://southeastasiaglobe.com/upcycling-cambodian-garment-sector/>

⁸ See for example, Philip Crang, Katherine Brickell, Laurie Parsons, Nithya Natarajan, Thomas Cristofolletti & Naomi Graham (2020) Discardscapes of fashion: commodity biography, patch geographies, and preconsumer garment waste in Cambodia, Social & Cultural Geography, DOI: 10.1080/14649365.2020.1777322

⁹ Chip Mong Group website, Chip Mong Insee Launches Waste Management Facility to Manage Industrial Waste, 5 December 2019, <https://www.chipmong.com/en/chip-mong-insee-launches-waste-management-facility-to-manage-industrial-waste/>

¹⁰ May Kunmakara, CMIC launches \$4M waste management facility in Kampot, 5 December 2019, <https://www.phnompenhpost.com/business/cmhc-launches-4m-waste-management-facility-kampot>

¹¹ Global Business Network Program, Partnership Ready Cambodia: Waste management, 2019, https://www.giz.de/en/downloads/GBN_Sector%20Brief_Kambodscha_Waste_E_WEB.pdf

¹² May Kunmakara, CMIC launches \$4M waste management facility in Kampot; See also, Siam City Cement, Company Profile, https://www.siamcitycement.com/en/who_we_are/company_profile

¹³ An investigation about different cement producers in Kampot found that Chip Mong had a high production capacity compared to the relatively small karst concessions, adding the company is one of the few that has an environmental impact assessment and rehabilitation plan for the Bantey Meas area where it operates. Danielle Keeton-Olsen, Roun Ry, Cambodian construction boom turn karst mountains to cement, 17 November 2020 <https://chinadialogue.net/en/business/cambodian-construction-boom-turns-karst-mountains-to-cement/>

¹⁴ Janelle Retka and Leng Len, Cambodia's building blocks: Cementing the future, 2 October 2018, <https://southeastasiaglobe.com/the-risks-of-cambodias-booming-cement-industry/>; See also Danielle Keeton-Olsen, Roun Ry, Cambodian construction boom turn karst mountains to cement

environmental officials and the Ministry of Culture reportedly mourned about the lack of cumulative impact assessment and losses of ancient temples and sculptures, but the first cement producer, namely K-Cement, started production in 2007¹⁵.

Chip Mong Insee Cement, in particular, reportedly stretches across 110 ha of land with plant-covered limestone hills and the facility has a production capacity of 5,000 tons of cement per day¹⁶. According to industry media, the company is one of the five cement producers in the whole country, four of which are located in Kampot and the fifth in Battambang Province¹⁷. Considering Chip Mong Insee's role in the regional and national cement production, another industry news states that in Kampot are produced 6.4 Mt/yr whereas the country's total production capacity was 8.2 Mt/yr as per 2019, a figure that nearly meets the national demand of 9.0 Mt/yr of cement estimated for 2020¹⁸. Given that Chip Mong Insee's industrial capacity stands at 1.5 Mt/yr¹⁹, this implies that, on the one hand, the company is responsible for over the 23% of the total cement produced in Kampot province and, on the other hand, its production capacity is able to meet over 16.6% of all the cement needed in the Cambodia construction industry.

In addition to holding responsibilities for contributing to the ecological deterioration of the karst region in the southern part of the country, Chip Mong Insee and its cement kilns fueled with garment and footwear waste sourced from two of the major industrial hotspots in the country contributes significantly to feeding the Cambodia's 'out-of-control' construction industry.

3. Cambodian garment factories supplying UK retailers involved in controversial practices

The 3rd module of this research found that some of the Cambodian garment factories - that GMAC records having ownership and/or supply relationship with UK entities - have been involved in major disputes, including:

- Grand Twins International, involved in controversial labor practices and repeated fainting of workers. The company, owned by Taiwanese investors but incorporated in BVI, supplies major consumer facing apparel brands in the USA
- Dewhirst Cambodia, involved in various labor disputes. The factory is one of the subsidiaries of the UK-based Drifford Group and supplies the UK online apparel retailer **Asos** and the UK-based **Charles Tyrwhitt**, as well as **Mark & Spencer**, **Arcadia Group**, and **Tesco Group / F&F**, according to these latter three companies last sourcing reports
- Crystal Martin (*see more in part 5 below*), involved in mass fainting accidents, as well as concerning labor practices such as harassment of trade unionists during the Covid-19 massive lay-offs. The factory, which belongs to a Hong Kong-based group but with links to the UK, through its sister manufacturers in Sri Lanka, have made many shipments of garment products to the UK, and supplied directly the UK's top apparel retailers **Mark & Spencer**, **Next**, and **George**, according to these companies' latest reporting

In addition to these factories, desk research finds that at least two other Cambodian manufacturers with supply links to UK apparel retailers have been involved in controversial business practices. These are:

- **Dongdu Textile Cambodia**, who was involved in labor disputes in 2014 after the company had fired trade union representatives and workers organized strikes in solidarity with the unions²⁰. In the same year, workers at the factory reported filling sick after breathing toxic substances resulting in episodes of fainting²¹. The 3rd module found that this Cambodian manufacturer is a supplier of Primark. In

¹⁵ Janelle Retka and Leng Len, Cambodia's building blocks

¹⁶ Janelle Retka and Leng Len, Cambodia's building blocks

¹⁷ Cemnet website, Cement Plants located in Cambodia, accessed November 2020, <https://www.cemnet.com/global-cement-report/country/cambodia>

¹⁸ Global Cement, Thai Boon Rong Cement schedules La'ang plant opening ceremony for November 2019, 17 October 2019, <https://www.globalcement.com/news/item/9983-thai-boon-rong-cement-schedules-la-ang-plant-opening-ceremony-for-november-2019>

¹⁹ Global Cement, Thai Boon Rong Cement schedules La'ang plant opening ceremony for November 2019

²⁰ Mom Kunthear, Two thousand strike over factory firing, 29 January 2014, <https://www.phnompenhpost.com/national/two-thousand-strike-over-factory-firing>; See also Mom Kunthear, Gov't-aligned union's strike quietly ended, 12 February 2014 <http://www.phnompenhpost.com/national/gov%E2%80%99t-aligned-union%E2%80%99s-strike-quietly-ended>

²¹ Radio Free Asia, More Than 1,000 Faintings Reported in Cambodian Factories This Year, 21 August 2014, <https://www.rfa.org/english/news/cambodia/faintings-08212014140815.html>; Ben Sokhean, More Factories Hit by Faintings; 1 Forced to Shut, 19 August 2014, <https://english.cambodiadaily.com/news/more-factories-hit-by-faintings-1-forced-to-shut-66800/>

addition, the factory appears to be a local branch of the private Chinese group Jiangsu Dongdu Textile Group which reportedly owns garment factories in Cambodia, Vietnam and Malaysia²², and which website states that it sales also to **Next** and **George**, two of UK's top apparel retailers²³.

- **Wintai Sock Manufacture**, which in December 2017 media reported about villagers raising complaints about pollution coming from the factory's untreated waste flowing into local streams, which resulted in grass killing and bad odors especially during heavy rains²⁴. Klaing Sambath Village Chief Ouch Monh confirmed villagers' concerns with regards to the untreated sewage system flowing from Wintai Sock Manufacture Ltd, in Bati district, in Takeo Province. The Ministry of Environment reportedly fined the company just USD \$7,500²⁵. The ownership of this factory is unreported, but given that online sources refer to an email address "@leetai" as a contact point for the factory²⁶, it might be possibly linked to an Hong Kong-based garment group called Leetai²⁷. Based on the latest disclosures of UK's top clothing retailers examined in Module 3, Wintai Sock Manufacture Ltd. is a Tier 1 supplier of **Next** and a supplier of **Debenhams**.²⁸

4. Potential links to environmental degradation in China due to production of cotton

The 2nd module of this research found that at least the 55.57% of UK's total imports of apparel products from Cambodia in 2015 – 2018 can be traced back to China. Even though the process of outsourcing garment manufacturing to third countries started decades ago, China remains the world's largest producer and exporter of textile following a production model made of dozens of industrial clusters concentrated in the eastern provinces (See Block B, section 4.1).

The country's production of garments for major consumer facing apparel brands has been, over the years, associated with huge pollution problems due to the use of enormous quantities of harmful chemicals entering the environment through wastewater. For example, in 2011 Greenpeace's field investigation reported how industrial clusters in Guangdong and Zhejiang linked to apparel brands such as Adidas, Lacoste, Nike, Puma and many others released toxic pollutants causing cancer and other harms for the local population²⁹. From then on, many initiatives to detox China have started, including fashion companies' undertakings³⁰, NGO campaigns³¹, but also China Government's regulatory reforms and crackdown on industry polluters, including textile factories³². Progress have also been made to disclose direct supply relationships between international brands, including apparel companies, and factories in China³³.

Whereas the above considerations are far from implying that ecological degradation linked to China's garment industry has been resolved, desk research finds that lack of transparency is still a major issue in disclosing corporate supply links between Chinese firms and companies based in countries such Cambodia that don't disclose detailed custom data³⁴. So, while attempts to track down links from Cambodian factories

²² Dongdu Textile website, About us, http://www.dongdutextile.com/about_en.html

²³ Dongdu Textile website, Sales network, http://www.dongdutextile.com/sales_en.html

²⁴ Daphne Chen, Garment factory fined after pollution claims, 5 December 2017, <https://www.phnompenhpost.com/national/garment-factory-fined-after-pollution-claims>

²⁵ Daphne Chen, Garment factory fined after pollution claims

²⁶ FOB Shanghai website, Wintai Sock Manufacture Ltd, <https://bbs.fobshanghai.com/company/1514627r15ltx97.html?btwaf=89829017>

²⁷ Industrial History of Hong Kong website, Lee Tai Textile Company Limited, <https://industrialhistoryhk.org/lee-tai-textile-company-limited-%E8%81%94%E6%B3%B0%E7%BA%B1%E5%8E%82%E6%9C%89%E9%99%90%E5%85%AC%E5%8F%B8/>

²⁸ See Annex of Module 3

²⁹ Greenpeace, Dirty Laundry: Unravelling the corporate connections to toxic water pollution in China, 2011, <<https://storage.googleapis.com/planet4-international-stateless/2011/07/3da806cc-dirty-laundry-report.pdf>>

³⁰ See, for instance, Wu Yixiu, Textile industry under pressure to detox fashion, 20 November 2018, <https://chinadialogue.net/en/business/10928-textile-industry-under-pressure-to-detox-fashion/>

³¹ See, for instance, Jenny Lei Ravelo, Mapping the environmental impacts of China's textile industry, 18 January 2018, <https://www.devex.com/news/mapping-the-environmental-impacts-of-china-s-textile-industry-91905>

³² See, for instance, Terry Townsend, China's Clampdown on Pollution is changing the Textile Environment, 5 June 2018, <http://cottonanalytics.com/chinas-clampdown-on-pollution-is-changing-the-textile-environment/>

³³ See, for instance, Institute of Public & Environmental Affairs, Green supply chain map: Brands/Suppliers, <http://www.ipe.org.cn/MapBrand/Brand.aspx?q=6>

³⁴ In this regard, the third module of this research could identify Cambodian manufacturers sourcing textile materials from, for example, enterprises based India and Sri Lanka among others, or Cambodian factories shipping garment goods to companies based in North America and some European countries because Panjiva does disclose detailed custom data, and therefore companies trading relationships, from these countries of origins or destinations. Considering China and Cambodia trading relationships of textile and garment goods, Panjiva discloses names of Chinese companies that sent to Cambodia over 37.000 shipments of knitted fabrics, 11.000 shipments of man staple fibres, and 16.000 shipments of cotton-related products – which module 2 of the research found being the most relevant types of textile products China exported to Cambodia and that, in turn, Cambodian factories may have used for the fabrication

supplying UK's top apparel retailers (identified in Module 3) back to specific Chinese enterprises (potentially exposed to harmful environmental practices in the country) led to no detailed results, environmental considerations can be made about Cambodia's sourcing of cotton from China. The 2nd module found that nearly 10.5% of the UK's total garment imports from Cambodia, consisting of cotton made non-knitted clothing, could be linked to China's exports of cotton products to Cambodia. The module also pointed out that China produces about two-third of the cotton it consumes.

The majority of China's own cotton production comes from northwest provinces of Xinjiang and Gansu provinces, along with eastern areas in the Yellow and Yangtze rivers³⁵. A 2011 study about issues in cotton production in China reports that environmental impacts are both water and soil-related. For water, the main problems regard the temporal distribution of precipitations, with seasons of flooding and others of severe draught. Soil deterioration is reportedly connected to plastic films residues left over on the cultivated soil but also to the use of chemicals resulting in reduction of the organic matter in the cultivated land, deterioration of soil structure, and favorable conditions for the multiplication of pests. The report adds that child labor at both cotton farm and textile manufacturing levels have been reported³⁶.

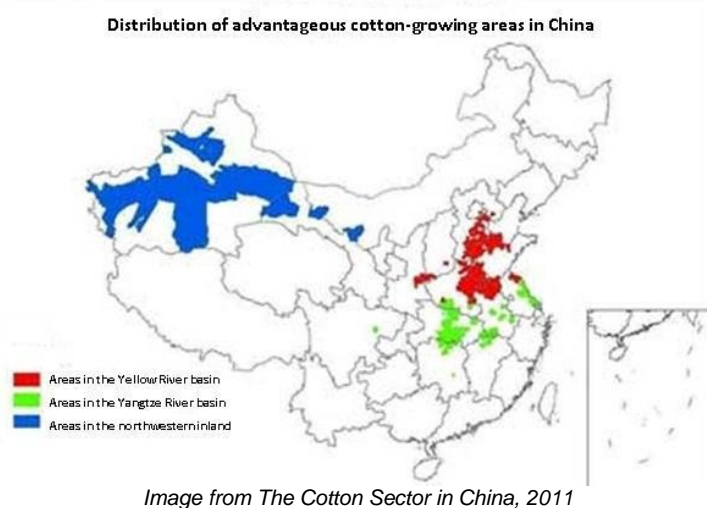


Image from *The Cotton Sector in China*, 2011

Whereas the International Trade Centre has analyzed the impacts of climate change on world's largest cotton producers, including in China³⁷, considerations could be made also about cotton production *inducing* ecological impacts. Other researchers stress indeed that, as per 2014, China accounted for about 30% of world's cotton output with only 15% of world's cotton land, implying that intensive farming technologies are also labor-intensive and involve massive inputs of fertilizers, pesticides and plastic films³⁸. In another study, they also point out that cotton areas and temperature changes may be somehow interrelated. This article finds that global warming leads, on the one hand, cotton plants to grow and develop more rapidly and, on the other hand, the frequent rainfalls in recent years to aliment water evaporation (due to temperature increases) but also contributes to new diseases in cotton farming³⁹. It could be assumed, therefore, that to combat new cotton pests more sophisticated pesticides are needed. In this regard, about 25-30% of total pesticides in China is used for cotton, that in such ecological changes becomes necessary for production, yet only the 1% of sprayed pesticides is reportedly effective whereas 99% is released into soils, water bodies and atmosphere. The report adds that although a harmful category of pesticides, called organochlorined pesticides (OCPs), was banned in early 80ies in China, they were still detected in come cotton fields⁴⁰. That said, while time limitations does not allow an analysis on how cotton production directly affect climate change⁴¹, the literature review indicates that intensive production in China is made possible by hazardous farming practices impacting the ecological integrity of cotton producing areas.

of garments destined to the UK. Nevertheless, while the name of the Chinese firms and suppliers is disclosed, for none of the nearly 65.000 shipments a single name of Cambodian buyer is provided.

³⁵ Jianlong Dai, Hezhong Dong, Farming and Cultivation Technologies of Cotton in China, Open access peer-reviewed chapter, 2016, <https://www.intechopen.com/books/cotton-research/farming-and-cultivation-technologies-of-cotton-in-china>

³⁶ Ting Zhang, the Cotton Sector in China, August 2011, p. 8 <http://www.bibalex.org/Search4Dev/files/431911/460191.pdf>

³⁷ International Trade Centre, Cotton and Climate Change: Impacts and Options to Mitigate and Adapt, Technical Paper, 2011, <https://www.intracen.org/cotton-and-climate-change.pdf/>

³⁸ Jianlong Dai, Hezhong Dong, Intensive cotton farming technologies in China: Achievements, challenges and countermeasures, Field Crops Research 155 (2014), 99-110. <https://doi.org/10.1016/j.fcr.2013.09.017>

³⁹ Jianlong Dai, Hezhong Dong, Farming and Cultivation Technologies of Cotton in China

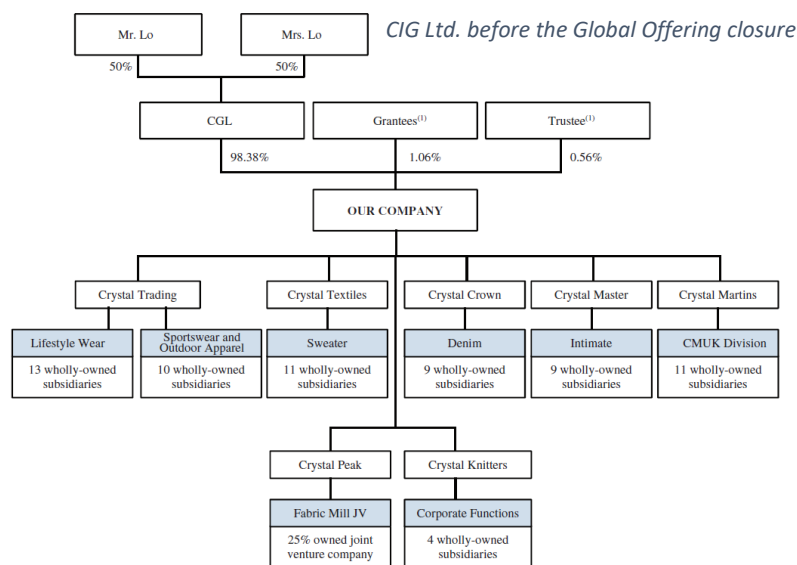
⁴⁰ Jianlong Dai, Hezhong Dong, Farming and Cultivation Technologies of Cotton in China

⁴¹ In this regard, it is worth noticing that, on the one hand, in 2011 the International Trade Centre found that future development of cotton sector in Brazil depended on the rate of deforestation in the 'cerrado' and that, on the other hand, the Global Agricultural Information Network reported that Brazil represented the second largest country of origin of China's imported cotton in 2018/2019. See International Trade Centre, Cotton and Climate Change: Impacts and Options to Mitigate and Adapt; and GAIN, China Cotton and Product Annual, November 2019,

5. Environmental and social issues associated with Crystal's supply chain

Module 3 of this research found that one of the Cambodian garment factories supplying UK retailer brands such as Mark & Spencer, Next, George was Crystal Martin (Cambodia), a local branch of the Hong Kong-based Crystal International Group (CIG Ltd). CIG Ltd became a public company in 2017 and, according to the Financial Times, the public offering of the world's biggest maker of clothes closed with the Andrew Lo - who is the group's CEO - and his family retaining 80% ownership of the group⁴². It adds that capitals raised by the public offering would be used to further shift production from China mainly to Bangladesh and Vietnam, whereas the group's factories in these two countries, together with those in Sri Lanka and Cambodia, already account for about two-thirds of the group's sales⁴³.

CIG Ltd global offering reports that the group comprises dozens of subsidiaries spread across Hong Kong, Bermuda, BVI, Bangladesh, Singapore, Macau, Taiwan, Vietnam, Samoa, Cambodia, UK, USA, Cayman Islands, Mauritius and China, divided into holding companies, corporate functions, and factories in the lifestyle wear, denim, intimate, sweater, sportswear and outdoor apparel, and fabric mill joint ventures⁴⁴. Other than Crystal Martin (Cambodia) Limited - that the offering includes in the CMUK Division⁴⁵ - the offering report lists other subsidiaries, including 4 other garment factories, owned by the group in Cambodia⁴⁶.



Desk research found reported environmental and pollution issues with regards to other subsidiaries operating in China and Vietnam⁴⁷, as follows:

- **Dongguan Yeji Industrial Co. Ltd.**, a unit reportedly with utility model and design patents⁴⁸. The Dongguan Environmental Protection Bureau reportedly found that this company did not comply with wastewater discharge standards of China's relevant regulations in 2014⁴⁹.
- **Dongguan Crystal Knitting & Garment Co Ltd**, a unit with utility model and invention patents⁵⁰. The Hong Kong group Students and Scholars Against Corporate Misbehavior reportedly found that this subsidiary was among a group of four factories investigated in China that was involved in worker right abuses - including enforcing overtime beyond legal limits, failing to pay social insurance

<https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Cotton%20and%20Products%20Annual%20Beijing%20China%20-%20Peoples%20Republic%20of%204-11-2019.pdf>

⁴² Ben Bland, Clothes company back humans over sewing robots, 2 January 2018, accessed November 2020,

<https://www.ft.com/content/5315eb6a-e563-11e7-97e2-916d4fbac0da>

⁴³ Ben Bland, Clothes company back humans over sewing robots

⁴⁴ Crystal International Group Limited, Global Offering, 23 October 2017, pp. 115-122 and Annex I

<https://www1.hkexnews.hk/listedco/listconews/sehk/2017/1023/lt20171023009.pdf>

⁴⁵ Crystal International Group Limited, Global Offering, p. 120

⁴⁶ These are the **property holding** Crystal Martin (Cambodia) Land Limited, Delight Gain Apparel (Cambodia) Ltd, Malaysia Dyeing (Cambodia) Co., Ltd; the **Manufacturer of Garments** Hugh Crown Manufacturing (Cambodia) Ltd., Perfect Growth Private Co. Ltd, Starlight Apparel Manufacturing Co., Ltd., Yi Da Manufacturer Co. Ltd; and the **investment holding and provision of corporate services** Stable Creation (Cambodia) Ltd. See, Crystal International Group Limited, Global Offering, Annex I

⁴⁷ Disclosure of information about each unit's exact business and how these would be linked to other subsidiaries of the group is missing. Nevertheless, because they all belongs to the same corporate group, other facilities might, potentially, be linked to garment operations in Cambodia. Desk research could not identify other controversial practices associated with these other Cambodian subsidiaries.

⁴⁸ Crystal International Group Limited, Global Offering, Annex IV, p. 16

⁴⁹ Crystal International Group Limited, Global Offering, p. 194

⁵⁰ Crystal International Group Limited, Global Offering, Annex IV, p. 15-16

and housing fund premiums - and using toxic chemicals that harm the workers and pollute the environments in November 2015⁵¹.

- **Pacific Crystal Textiles Ltd**, one of the group's fabric mill joint ventures in Vietnam⁵². According to news media, villagers nearby reported that polluted water was discharged from its factory in mid-2017⁵³. The pollution problem reportedly mobilized villagers of Bui Van Nguyet, whose protests police violently cracked down with the use of water cannon and electric rods⁵⁴. Authorities found that pollutants discharged by the factory were beyond the limits, and that these involved acidity and alkalinity balance, colour, total suspended solids, chemical oxygen and biochemical oxygen.⁵⁵ The factory located in the Lai Vu Industrial Park in Kim Thanh District, in Hai Duong Province, was fined for approximately USD \$ 30,000⁵⁶, but people accused the factory of causing continued pollution problems⁵⁷.

Apart from environmental and social issues reported within CIG Ltd's corporate structure, other issues have been identified within the group's supply chain. The public offering reports that among the company's five largest suppliers are Texwinca Holdings Limited and Fountain Set Limited, along with the holding company of Pacific Textiles reported above, which the group had 11 to 28 years of relationship with as per 2016⁵⁸. Considering these suppliers, desk research found that:

- Back in 2006 a subsidiary of **Fountain Set Limited** in China, Dongguan Fu An Textile Company, was fined by the Guangdong authorities following an inspection that found the company emitting a daily volume of 20,000 tons of wastewater, trying to evade significant punitive charges⁵⁹.
- In June 2018, the Council on Ethics, the independent watchdog of the Norway's government wealth fund, released a compliance assessment of **Texwinca Holdings** finding that two production units in Vietnam were responsible of serious human rights violations. Workers at these Vietnamese subsidiaries reported high production quotas, high indoor temperatures and widespread harassment and abuse by supervisory staff, which, in one of the two factories, contributed to employees fainting at their posts. Violations of fire safety regulations, sick leaves' penalizations through wage deductions, people forced to work overtime, discrimination of pregnant women, and restrictions on freedom of association were also considered, among other issues⁶⁰.

⁵¹ Michelle Russell, Uniqlo under fire again for China worker abuses, 27 November 2015, https://www.just-style.com/news/uniqlo-under-fire-again-for-china-worker-abuses_id126715.aspx

⁵² Crystal International Group Limited, Global Offering, p. 122

⁵³ Mai Nguyen, Vietnam pollution fight hits supplier to global fashion brands, 21 July 2017, <https://fr.reuters.com/article/idUSKBN1A60GO>

⁵⁴ Knitting Industry website, Vietnam authorities end protest at global knitwear supplier, 25 September 2017 <https://www.knittingindustry.com/vietnam-authorities-end-protest-at-global-knitwear-supplier/>

⁵⁵ Knitting Industry website, Vietnam authorities end protest at global knitwear supplier

⁵⁶ Apparel Resources website, Vietnam fines Hong-Kong Based textile firm over wastewater discharge, 9 February 2017, <https://apparelresources.com/business-news/sustainability/vietnam-fines-hong-kong-based-textile-firm-over-wastewater-discharge/>

⁵⁷ Mai Nguyen, Vietnam pollution fight hits supplier to global fashion brands

⁵⁸ The other two are Jiangyin Shenli International Trade Co. and Limited and Guangdong United Progress Wootex Hong Kong Office Limited. Crystal International Group Limited, Global Offering, p. 174

⁵⁹ Business and Human Rights Resource Center website, China: Fountain Set subsidiary fined 11.55 RMB and Dongguan Chaoyue under tight scrutiny for polluting, 17 August 2006, <https://www.business-humanrights.org/pt/%C3%BAtimas-not%C3%ADcias/china-fountain-set-subsiary-fined-1155-million-rmb-and-dongguan-chaoyue-under-tight-scrutiny-for-polluting/>

⁶⁰ Council on Ethics, Recommendation to Exclude Texwinca Holdings Ltd from the Government Pension Fund Global, 5 June 2018, <https://etikkradet.no/files/2019/01/Recommendation-Texwinca-5.6.18.pdf>