

NOTE

THE PRICE OF FASHION:
THE ENVIRONMENTAL COST OF THE TEXTILE
INDUSTRY IN CHINA

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ABSTRACT

China plays a prominent role in the fashion industry as a leading exporter and importer of textiles. Recent studies reveal the extent of the environmental impacts of the fashion industry on greenhouse gas emissions and pollutants. The 2021 Intergovernmental Panel on Climate Change reported a harrowing prediction of rapidly worsening climate change, demanding immediate remedial climate action to avoid disastrous effects. China's textile industry contributes significantly to the nation's air and water pollution. The industry relies on unsustainable practices including improper dumping of untreated, volatile wastewater and burning coal to power textile factories, increasing hazardous methane emissions.

This Note seeks to examine China's current environmental regulations and sustainability initiatives affecting the textile industry. China's textile industry exists within a globalized system; therefore, evaluating the current approaches of factories, nations, and brands in mitigating the industry's sustainability practices necessitates understanding overarching international commitments. This Note advocates for several measures that the Chinese government and the fashion industry should take to address the severe environmental impacts of China's textile industry. China

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should strengthen its new environmental tax policy to include carbon dioxide within the scope of offending pollutants. Brands should also leverage their financial position to require supply chains to become more transparent and shift toward more environmentally friendly wastewater and dyeing practices. Finally, China’s economy must continue phasing out its coal dependency to rely more on renewable energy sources to power a more sustainable future for the textile industry.

| | |
|--|-----|
| ABSTRACT | 907 |
| I. INTRODUCTION | 909 |
| II. WATER POLLUTION | 912 |
| A. CHINESE TEXTILE FACTORIES’ IMPROPER DUMPING OF POLLUTED WASTEWATER | 912 |
| 1. China’s Regulation of Wastewater Disposal | 913 |
| 2. IPE’s Public Databases Demand Accountability | 915 |
| B. CHINA’S 2018 ENVIRONMENTAL TAX LAW REFORM | 918 |
| 1. Understanding the New Tax Policy | 919 |
| 2. Evaluation of the Policy’s Efficiency | 922 |
| C. INITIATIVES | 925 |
| 1. Brands Pilot Water Pollution Initiatives | 926 |
| 2. New Manual: How to Dye More Sustainably | 927 |
| D. WATER POLLUTION: SUMMARY | 928 |
| III. AIR POLLUTION | 929 |
| A. FASHION INDUSTRY CHARTER FOR CLIMATE ACTION | 931 |
| 1. Background and Progress of Working Groups | 931 |
| 2. 2021 Summit and Beyond | 936 |
| B. COP 26 SUMMIT | 939 |
| 1. Key Takeaways of the COP26 Agreement | 939 |
| 2. China’s Position in COP26..... | 943 |
| D. AIR POLLUTION: SUMMARY | 947 |
| IV. RECOMMENDATIONS: FACILITATING A SUSTAINABLE FUTURE FOR CHINA’S TEXTILE INDUSTRY | 947 |

| | |
|---|-----|
| A. ENVIRONMENTAL TAX REFORM | 948 |
| B. BRANDS EXERT FINANCIAL LEVERAGE TO DEMAND TRANSPARENCY AND BETTER PRACTICES | 950 |
| C. REDUCE COAL DEPENDENCY IN COMPLIANCE WITH FASHION CHARTER AND COP26..... | 954 |
| V. CONCLUSION | 957 |

I. INTRODUCTION

“Becoming more mindful about clothing means looking at every fiber, at every seed and every dye and seeing how to make it better. We don’t want sustainability to be our edge, we want it to be universal.” —Eileen Fisher¹

The 2021 Intergovernmental Panel on Climate Change (“IPCC”) Report presented a shocking prediction of climate change’s rapidly intensifying effects.² Accordingly, the climate crisis demands swift and dramatic action to meet such an unprecedented challenge. The fashion industry is one of the most polluting industries on the planet.³ In response to a recent explosion of consumer demand for sustainability, brands have undertaken new initiatives to commit to a more sustainable

1. Karim Orange, *Fashion Icon Eileen Fisher Talks about Creating Sustainable Fashion*, HUFFPOST (Dec. 12, 2014), https://www.huffpost.com/entry/fashion-icon-eileen-fisher_b_6315600 [<https://perma.cc/TSV9-N5KT>].

2. Climate Change Widespread, Rapid, and Intensifying – IPCC Report, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (Aug. 9, 2021), <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/> [<https://perma.cc/CNG3-2GLN>].

3. Subramanian Muthu & Asim Choudhury, *Environmental Impacts of the Textile Industry and Its Assessment Through Life Cycle Assessment*, in ROADMAP TO SUSTAINABLE TEXTILES AND CLOTHING: ENVIRONMENTAL AND SOCIAL ASPECTS OF TEXTILES AND CLOTHING SUPPLY CHAIN 1–5 (Subramanian Senthilkannan Muthu eds. 2014) (“The issues which make the life cycles of textiles and clothing unsustainable are the use of harmful chemicals, high consumption of water and energy, generation of large quantities of solid and gaseous wastes, huge fuel consumption for transportation to remote places where textile units are located, and use of non-biodegradable packaging materials.”).

approach at each stage of their garment's life, including the initial treatment of textiles.⁴

The textile industry is an extensive global supply chain that involves the processing of fibers into fabric and subsequent assembly of fabrics into garments.⁵ Large amounts of water, chemicals, and fossil fuels are required at each stage of production. Water consumption and improper wastewater discharge can often lead to severe groundwater contamination and exacerbate water scarcity issues.⁶

According to the World Trade Organization, China stands at the forefront of both the fashion industry and this environmental crisis as the largest exporter and producer of textiles in the world.⁷ The textile industry produces 2.5 billion tons of wastewater, which manufacturers often improperly dump into waterways without prior filtration.⁸ China's textile industry is responsible for more than fifty percent of global fiber production.⁹ A common and harrowing joke in China is that "you can predict the 'it' color for the season by looking at the color of the river."¹⁰

Ameliorating this issue requires a deeper understanding of the environmental issues at play. In the most basic terms, the textile industry contributes to two forms of pollution in China:

4. *Id.* at 5.

5. Pervin Anis & Tuba Toprak, *Textile Industry's Environmental Effects and Approaching Cleaner Production and Sustainability, An Overview*, 2 J. TEXTILE ENG'G FASHION TECH. 429, 432 (2017).

6. *Id.* at 429-30.

7. WORLD TRADE ORGANIZATION STATISTICAL REVIEW, WORLD TRADE ORG. 1, 77-78 (2021), https://www.wto.org/english/res_e/statis_e/wts2021_e/wts2021_e.pdf [<https://perma.cc/JN3P-VCH3>].

8. Kathleen Webber, *How Fast Fashion is Killing Rivers Worldwide*, ECOWATCH (Mar. 22, 2017), <https://www.ecowatch.com/fast-fashion-riverblue-2318389169.html> [<https://perma.cc/PY8L-YWDU>].

9. Laili Wang, Yi Li & Wanwen He, *The Energy Footprint of China's Textile Industry: Perspectives from Decoupling and Decomposition Analysis*, 10 ENERGIES 1, 2 (2017), https://www.researchgate.net/publication/319996293_The_Energy_Footprint_of_China's_Textile_Industry_Perspectives_from_Decoupling_and_Decomposition_Analysis [<https://perma.cc/72VC-U4HG>].

10. Webber, *supra* note 8.

water pollution and air pollution.¹¹ This Note investigates China's current approach to regulating each form of pollutants. Part II addresses the issue of water pollution and China's new environmental tax reforms which provide a potential solution to the historical problems of China's nonenforcement of environmental regulations. Brands have also begun piloting new water pollution initiatives with commitments to use more sustainable dyeing practices and wastewater treatment facilities. Part III discusses the issue of air pollution by examining international and collective brand reform initiatives targeting greenhouse gas emission initiatives, including the renewed Fashion Industry Charter for Climate Action and the 26th United Nations Climate Change Conference ("COP26"). Brands' commitment to sustainability alone, although crucial, will not solve the environmental crisis facing the textile industry; national governments must craft complementary policies that facilitate the industry's goal of decreasing carbon emissions.¹²

Part IV presents several recommendations to improve the sustainability of the textile industry in China. As a leader in textile production and one of the industry's worst polluters, any reforms that China's textile industry implements—such as environmentally friendly textile dyeing or wastewater treatment facilities—could spur widespread reform across factories, brands, and governments.¹³ Achieving this goal of mainstream industry

11. *Encourage Textile Manufacturers to Reduce Pollution*, NAT'L RES. DEF. COUNCIL (2012), <https://www.nrdc.org/issues/encourage-textile-manufacturers-reduce-pollution> [https://perma.cc/ZJH8-H86R] [hereinafter NAT'L RES. DEF. COUNCIL].

12. Emily Chan, *How Fashion Is Ramping Up Its Climate Efforts at COP26*, VOGUE (Nov. 9, 2021), <https://www.vogue.com/article/cop26-un-fashion-charter-climate-change-efforts> [https://perma.cc/58GK-9YSD] (“[M]ore than 50 companies, including the likes of Kering, Stella McCartney and Chloé, have now called on governments to implement policy change on [financial incentives to implement brand sustainability commitments of UN Fashion Charter].”).

13. See Yi Li et al., *Decoupling Water Consumption and Environmental Impact on Textile Industry by Using Water Footprint Method: A Case Study in China*, 9 WATER 1, 1 (Feb. 9, 2017) (“Establishing a resource-saving and environment-friendly textile production system is an essential goal for the development of China's textile industry, and also a prerequisite for China to achieve green modernization . . . to improve the water management and ultimately achieve sustainable development of the textile industry.”).

sustainability requires reforming China's environmental tax system and encouraging brands to shift toward more sustainable textile treatment practices while leveraging their financial influence to ensure supplier accountability. Furthermore, China's textile industry must be part of the ground-breaking transition away from the nation's heavy coal dependency to comply with the aims of the Fashion Industry Charter for Climate Action and COP26.¹⁴

II. WATER POLLUTION

The textile dyeing industry is responsible for the vibrant colors that often first catch a customer's eye when picking out a garment off the rack or sorting through pages of an online store.¹⁵ However, the process of creating this final product involves a significant environmental price when manufacturers utilize noxious chemicals and improperly dump wastewater directly into waterways.¹⁶ The textile industry is the world's second largest polluter of water, evident by the sight of the rivers and freshwater reservoirs that surround textile industry towns in Chinese provinces.¹⁷

A. CHINESE TEXTILE FACTORIES' IMPROPER DUMPING OF POLLUTED WASTEWATER

14. See Chris Buckley, *The Rock Standing in the Way of China's Climate Ambitions: Coal*, N.Y. TIMES (Oct. 28, 2021), <https://www.nytimes.com/2021/03/16/world/asia/china-coal-politics.html> [https://perma.cc/6TBQ-CEB6] (“[T]here’s a sense that coal has driven the [Chinese] economy On the other hand, coal is the biggest target for climate action, particularly in the near term.”).

15. Beth Ranson, *The True Cost of Colour: The Impact of Textile Dyes on Water Systems*, FASHION REVOLUTION (2020), <https://www.fashionrevolution.org/the-true-cost-of-colour-the-impact-of-textile-dyes-on-water-systems/> [https://perma.cc/BJZ8-HPCG].

16. Morgan McFall-Johnsen, *These Facts Show How Unsustainable the Fashion Industry Is*, WORLD ECON. F. (Jan. 31, 2020), <https://www.weforum.org/agenda/2020/01/fashion-industry-carbon-unsustainable-environment-pollution/> [https://perma.cc/J6LE-4PF9].

17. *Id.*

A 2010 report by Greenpeace, a global network dedicated to increasing awareness of environmental issues, exposed the extent of this damage to two textile towns in the southern Guangdong province, Xintang, the “Jeans Capital of the World,” and Guao, a town with eighty percent of its local economy dependent upon lingerie and undergarment manufacturing.¹⁸ Laboratory testing of the water and sediment revealed alarming levels of heavy metals including one sediment sample with concentrations of cadmium at “128 times in excess of national environmental standards.”¹⁹ Cadmium, chromium, mercury, lead, and copper were found in seventeen of the twenty-one samples collected in the towns.²⁰ Dumping wastewater from denim dyeing treatment plants devastated Xintang’s Dong River, making it completely unsafe for human use and poisoning crops in the event of an overflow.²¹ Similarly, Guao’s local river, the Xiao Xi, was so polluted that it became no longer potable or inhabitable for fish.²² The villagers complained of the strong stench and stated that their homes flooded with toxic wastewater when the river overflows.²³ Greenpeace estimated that these towns represent only two of the hundreds of textile towns like this in China.²⁴

1. China’s Regulation of Wastewater Disposal

China’s textile industry relies on processing large quantities of water, yet many argue that it fails to regulate wastewater

18. *The Environmental Cost of Clothes*, CHINA WATER RISK (Apr. 18, 2011), <https://www.chinawaterrisk.org/resources/analysis-reviews/the-environmental-cost-of-clothes/> [<https://perma.cc/7WQ3-Z3YQ>] [hereinafter CHINA WATER RISK].

19. Huang Jingjing, *Greenpeace Exposes Toxic Textile Hazards*, GLOB. TIMES (Dec. 2, 2010), <https://www.globaltimes.cn/page/201012/598248.shtml> [<https://perma.cc/KPH8-XJUE>].

20. *Id.*

21. *Planet Earth Pays Too Much for Cheap Apparel*, HYDROTECH, <https://www.hydrotech-group.com/blog/za-lacnu-modu-plati-nasa-zem-privela-oblecenie-sa-pritom-da-farbit-aj-ekologicky> [<https://perma.cc/VZ9K-ZN6H>].

22. CHINA WATER RISK, *supra* note 18.

23. *Id.*

24. *Id.*

treatment adequately.²⁵ Residual heavy metal and noxious, carcinogenic chemicals and dyes are often dumped into rivers and freshwater sources.²⁶ Disposal is often poorly regulated or virtually unregulated, failing to disincentivize such detrimental practices.²⁷ It is estimated that seventy percent of lakes and rivers, and ninety percent of the groundwater in China are polluted, threatening wildlife and citizens' access to clean water.²⁸

The World Bank estimates that seventeen to twenty percent of China's industrial water pollution is due to textile dyeing and treatment.²⁹ Furthermore, China's water contains seventy-two toxic chemicals solely attributable to textile dyeing, thirty of which cannot be chemically removed from the water at all.³⁰ Ma Jun, a renowned environmentalist and founding director of the Chinese nongovernmental Institute for Public and Environmental Affairs ("IPE"), stated that:

[r]elatively more people are exposed to heavy metal pollution from textiles than any other industry. There are 'several thousand' violators from the industry featur[ed] among the IPE lists of factories and that have been fined for polluting China's water and air as they produce the clothes worn around the world.³¹

He argued that this issue's continued prevalence was in part due to the lack of incentive for factories and companies to clean up their practices.³² The fines that had been in effect for decades for violating environmental standards in this way are relatively low (between 50,000 and 100,000 yuan, or the equivalent of

25. *Id.*

26. *Id.*

27. *Id.*

28. *Id.*

29. *Id.*

30. *Id.*

31. *Id.*; see also Saumya Ancheri, *An App Helped Beijing Fix Its Problem. (Delhi, Here's Your Cue)*, CONDÉ NAST TRAVELLER (Sept. 21, 2019), <https://www.cntraveller.in/story/an-app-helped-beijing-fix-its-pollution-problem-delhi-heres-your-cue/> [<https://perma.cc/R4GE-LTR4>].

32. CHINA WATER RISK, *supra* note 18.

approximately 7,800 to 15,000 US dollars) and were imposed not per violation but rather annually.³³

The lack of adequate fine enforcement and wastewater treatment plants enables factories and brands to continue engaging in dumping practices without criticism or accountability.³⁴ Nongovernmental organizations (“NGOs”) like Ma Jun’s IPE have taken matters into their own hands by demanding transparency of pollution data.³⁵ These platforms have dramatically impacted the accountability and enforcement of China’s environmental regulatory regime.³⁶

2. IPE’s Public Databases Demand Accountability

IPE commits to promoting public awareness and holding governments and brands accountable for water and air pollution violations.³⁷ It collects data and creates public indices so that individuals, companies, investors, government officials, and NGOs all access the same information, which has led to “drastic cuts in emissions.”³⁸ It first developed the China Water Pollution Map, China’s first environmental public database of official governmental reports that identifies thousands of cases of water discharge violations and factory pollutant performance records across the country.³⁹

This map grew from a meager two thousand records of discharge violations in 2006 to a current collection of 1.5 million

33. *Id.*

34. Dawn McGregor, *Insights from China’s Textile Manufacturers: Gaps to Overcome for Clean & Circular Fashion*, CHINA WATER RISK 1, 42 (Aug. 2017), <https://chinawaterrisk.org/wp-content/uploads/2017/08/Insights-From-China’s-Textile-Manufacturers.pdf> [<https://perma.cc/DGY4-U77X>].

35. *Id.* at 18.

36. *Id.*

37. Jennifer Jun & Maria Sköld, *Ma Jun to Speak at Water Day*, STOCKHOLM INT’L WATER INST. (Nov. 10, 2020), <https://siwi.org/latest/ma-jun-to-speak-at-water-day/> [<https://perma.cc/B5ZN-CNXP>].

38. *Id.*

39. Chito Romano, *Web Site Tracks China’s Pollution Levels*, ABC NEWS (Feb. 9, 2009), <https://abcnews.go.com/Technology/story?id=4018827&page=1> [<https://perma.cc/ZRC9-UXB2>].

corporate violations.⁴⁰ With twenty-two thousand monitoring stations, IPE collects information to develop detailed indices.⁴¹ IPE presents this data to the National People's Congress, China's national legislature, to encourage more manufacturer transparency and embolden further water data disclosures.⁴²

IPE later developed Blue Map, a mobile app that allows citizens to access air and water quality data and file "micro-reports" against polluting factories.⁴³ Ma Jun created the app with the conviction that knowledge is power; before 2013, people had limited access to any air quality data.⁴⁴ Residents can now check the app daily to understand current air quality conditions and pinpoint the exact polluters and regions contributing to the day's smog.⁴⁵ The app has now been downloaded three million times and provides real-time pollution data across thirty-one provinces and 338 cities for thirteen thousand companies.⁴⁶ Users can take to social media to provide accountability in the court of public opinion against factories and contracting companies. This system acts as a form of transparency and accountability that had not been available or enforced through governmental regulations for decades.⁴⁷

The current app facilitates reporting water pollution violations. Users report "black and smelly rivers" to government ministries with guarantees of a one hundred percent response rate, detailing the violating company's and government's response and counteraction to the report.⁴⁸ The app possesses a social media element with a sharing wall in which users can discuss current conditions or reports on polluters.⁴⁹ Therefore, polluters are under heightened scrutiny as citizens not only access novel polluter

40. Jun & Sköld, *supra* note 37.

41. *Id.*

42. *Id.*

43. Ancheri, *supra* note 31.

44. *Id.*; Romano, *supra* note 39.

45. Ancheri, *supra* note 31.

46. *Id.*

47. *Id.*

48. *Id.*

49. *Id.*

information but also demand accountability through reports of environmental violations and social discussion boards. IPE's app has motivated 1.5 million reports of environmental violations with key polluters addressing and correcting violations.⁵⁰ Furthermore, the program motivated "more than 70 of the largest local and multinational brands to engage with their Green Supply Chain program, where companies compare their list of suppliers with IPE's list of violators to identify the gaps and make improvements."⁵¹ Large companies like Nike, H&M, and Sony utilize the IPE's factory polluter maps to self-regulate their suppliers.⁵²

IPE provides emissions data updated every two hours of eighteen thousand factories in China, with a focus on the water pollutant activities of dye houses, chemical plants, and industrial water treatment facilities.⁵³ The app provides a strong tool to the public with societal pressures for factories to be more sustainable.⁵⁴ It increases public scrutiny with live up-to-date databases, convenient accessibility to submit ministerial reports of environmental violations, and presentation of data to the People's Congress to spread awareness about the severity of China's water pollution issue.⁵⁵

IPE and Ma Jun's book, *China's Water Crisis*, promoted widespread environmental awareness across the globe, and Ma Jun became the face of China's environmentalism movement.⁵⁶ When factories are flagged for polluting activities, the societal pressure leads many brands to improve their practices.⁵⁷ They can then partner with IPE to conduct third-party audits of their supply

50. *Id.*

51. *Id.*

52. *Id.*

53. Jun & Sköld, *supra* note 37.

54. *Id.*

55. *Id.*

56. Will Ford, *How One Activist Used a Little Shaming and a Lot of Patience to Clean Up Chinese Factories*, MOTHER JONES (Apr. 23, 2019), <https://www.motherjones.com/environment/2019/04/ma-jun-china-factories-environmental/> [<https://perma.cc/H6FY-LFT4>].

57. *Id.*

chains and update the database to reflect their improved practices.⁵⁸

IPE has audited and collaborated with many notable industry leaders' supply chains including Apple's factories in China.⁵⁹ In 2011, the database published reports exposing several tech companies' environmentally harmful practices; IPE later considered publishing additional reports upon discovering that Apple factories manufacturing iPhone, iPad, and MacBook parts improperly dumped toxic chromium waste in China's waterways.⁶⁰ Apple cooperated with IPE to reform its practices and has now become one of many private industry leaders IPE has aided.⁶¹

An emphasis on transparency through alternative platforms like the Blue Map app and IPE's many indices offers an opportunity to informally regulate the Chinese textile industry's severe water pollution.⁶² It addresses a problem often overlooked by the Chinese government, wider public, and brands, all of whom have been historically elusive about disclosure of this compromising data.⁶³ With increasing consumer pressures to be more sustainable, these transparency tools can be key for brands to know whether their manufacturers are complying with their sustainability commitments.⁶⁴

B. CHINA'S 2018 ENVIRONMENTAL TAX LAW REFORM

In 2017, tens of thousands of textile factories in China temporarily closed in an unprecedented crackdown on factories that failed to comply with national environmental pollution laws.⁶⁵

58. *Id.*

59. *Id.*

60. *Id.* ("More than seven years later [after Apple's initial meetings with IPE], IPE has helped audit many of Apple's factories and suppliers in China, and the group now ranks the company first on its list of the most transparent companies.").

61. *Id.*

62. Jun & Sköld, *supra* note 37.

63. *Id.*

64. *Id.*

65. Rob Schmitz, *China Shuts Down Tens of Thousands of Factories in Unprecedented Pollution Crackdown*, NPR (Oct. 23, 2017), <https://www.npr.org/sections/parallels/2017/10/23/559009961/china-shuts-down->

Inspectors from China's Ministry of Environmental Protection fined and, in some cases, criminally charged more than eighty thousand factories.⁶⁶ Entire manufacturing provinces shut down, resulting in many brands exporting their supply chains to other countries including Bangladesh and India to fulfill orders.⁶⁷ Some argued this crackdown pressures factories to improve their concerning environmental practices, forcing them to comply with stricter regulations.⁶⁸

China implemented a new Environmental Protection Tax that went into effect on January 1, 2018.⁶⁹ Under the new tax law, violators are disciplined by China's tax bureaus, rather than the environmental bureau.⁷⁰ China's tax bureaus are known to stand as "powerful entities backed up by rigorous laws that, when violated, are typically met with aggressive local enforcement."⁷¹ The new policy aims to reduce pollutant discharge by implementing more effective enforcement measures.⁷²

1. Understanding the New Tax Policy

The tax effectively supplanted the Pollutant Discharge Fee system that had been in effect since 1979 while still regulating the same scope of environmental violations concerning water pollution, air pollution, noise pollution, and solid wastes.⁷³ Taxable

tens-of-thousands-of-factories-in-unprecedented-pollution-crack
[<https://perma.cc/KL5Z-QMEU>].

66. *Id.*

67. *Id.* ("Inspection crews from the environmental bureau had shut businesses down [in industrial towns], cutting electricity and gas...Entire swaths of Eastern China have halted production.").

68. *Id.*

69. Ana Cicienia, *China's Environmental Protection Tax*, CHINA BRIEFING (Jan. 18, 2018), <https://www.china-briefing.com/news/china-environmental-protection-tax/> [<https://perma.cc/H79K-3S5T>].

70. Schmitz, *supra* note 65.

71. *Id.*

72. *Id.*

73. Laney Zhang, *China: New Law Replacing Pollution Discharge Fee with Environmental Protection Tax*, LIBR. OF CONG. (Feb. 8, 2017), <https://www.loc.gov/item/global-legal-monitor/2017-02-08/china-new-law-replacing->

items, tax rates, and taxpayer specifications largely mimic the fee system.⁷⁴ However, the tax system heralds new changes to the penalty system that attempt to pioneer new incentives for enforcing existing regulations and encouraging polluters to decrease their levels of contaminants.⁷⁵

Unlike the fee system, the collected tax revenue remains at the local authority level completely, rather than allocating ten percent to the central government.⁷⁶ The government designed this fee system to encourage enforcement.⁷⁷ It imbues local level authorities with greater enforcement powers and incentives to collect the tax.⁷⁸

Additionally, in the past, the government organized the fee system as a uniform fee that did not distinguish between higher or lower polluters.⁷⁹ The new tax makes this distinction, recognizing that the uniform fee system failed to compel companies to lessen their pollution levels if they were to face the same fine amount regardless.⁸⁰ Polluters pay different tax rates contingent upon their level of polluting activity so that heavy polluters face greater financial consequences.⁸¹

The tax system possesses preferential tax breaks to further incentivize reducing emissions.⁸² It provides more avenues of achieving tax penalty reductions when performing actions that minimize pollutant levels. Under the fee system, the only way to reduce the imposed fee by fifty percent was if the polluter demonstrated their levels were less than fifty percent of the local

pollution-discharge-fee-with-environmental-protection-tax/ [https://perma.cc/2HJD-FG4K].

74. Weining Hu, *China's New Environmental Protection Tax Law*, CHINA BUS. REV. (May 24, 2017), <https://www.chinabusinessreview.com/chinas-new-environmental-protection-tax-law/> [https://perma.cc/483Q-8P25].

75. *Id.*

76. Cicensia, *supra* note 69.

77. *Id.*

78. *Id.*

79. *Id.*

80. *Id.*

81. *Id.*

82. Hu, *supra* note 74.

standard. The new tax policy offers an *additional* route for tax reduction; a company will receive a twenty-five percent tax cut if they can show their pollution is thirty to forty-nine percent less than the local permitted disposal standard.⁸³

The tax also addresses part of the longstanding criticism that the fee system was not structured with serious enough stakes to deter polluters.⁸⁴ The tax raises the penalty for non-payment from three times the fee amount to five times the tax amount.⁸⁵ Further, if violations are deemed particularly egregious, local authorities can charge criminal penalties.⁸⁶

In the past, local governments exploited loopholes in the fee system to exempt larger enterprisers, the most serious offenders, in exchange for fiscal revenue.⁸⁷ The tax system was designed to help close those loopholes.⁸⁸ However, it is noteworthy that local authorities still have discretion in setting the tax rate for the applicable pollutant (within a set range decided by the central government), which could potentially raise new exploitation concerns.⁸⁹ Nevertheless, this discretion was meant to take into account the region and company's socioeconomic context.⁹⁰

Proponents also expect tax authorities to impose the tax with greater frequency and intensity than administrative departments.⁹¹ The government changed enforcement authority to increase environmental supervision for more rigid administration.⁹² The enactment of these new policies seek to collectively improve enforcement of national environmental regulations, while incentivizing energy-related companies to adopt more sustainable manufacturing and wastewater treatment

83. *Id.*

84. Cicensia, *supra* note 69.

85. *Id.*

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.*

90. *Id.*

91. Hu, *supra* note 74.

92. *Id.*

practices.⁹³ If the tax system's enforcement proves effective, it could help discourage the water pollution offenses by the textile industry.

2. Evaluation of the Policy's Efficiency

China's Environmental Protection Tax marks the first of its kind in China's history.⁹⁴ China's environmental impact, a result of its large population, growing economy, and ill-reputed levels of unsafe air and water pollutants in major cities, has been the source of widespread international scrutiny.⁹⁵ This tax was promulgated in 2016 to start reforming heavily polluting industries as part of the country's commitment to transition to a greener economy.⁹⁶

The State Council originally introduced the concept of replacing the pollutant discharge system with a tax scheme in 2008.⁹⁷ After years of debate, the Ministry of Finance, the State Administration of Taxation, and the Ministry of Environmental Protection jointly introduced draft tax reform laws for public comment in 2015 and 2016.⁹⁸ The law went into effect around the time when the nation began implementing an assortment of national regulations to address environmental concerns.⁹⁹

93. See Qianyang Tu & Ying Wang, *New Environmental Protection Taxes in China from the Perspective of Environmental Economics*, DISCRETE DYNAMICS IN NATURE AND SOC'Y (2021), <https://doi.org/10.1155/2021/8622081> [<https://perma.cc/NF4T-SDY2>]; see also Zhice Cheng, et al., *How Does Environmental Protection Tax Affect Corporate Environmental Investment? Evidence from Chinese Listed Enterprises*, 14 SUSTAINABILITY 1, 2 (2022), <https://doi.org/10.3390/su14052932> [<https://perma.cc/CC75-5V38>] ("Environmental protection tax is a market-incentive type of environmental regulation tool, and it is a mandatory tool for the government to induce enterprises to conduct relevant environmental protection work.").

94. Tu & Wang, *supra* note 93.

95. Huwei Wen, et al., *The Effects of the Environmental Protection Tax Law on Heavily Polluting Firms in China*, 16 PLOS ONE e0261342 (Dec. 16, 2021).

96. *Id.*

97. Walker Wallace & Carl Heiberg, *China Law and Policy (February 2017): New Taxes to Support Environmental Protection in China*, O'MELVENY & MYERS (Feb. 7, 2017), <https://www.omm.com/resources/alerts-and-publications/alerts/china-law-and-policy-february-2017/> [<https://perma.cc/WPG6-36L5>].

98. *Id.*

99. *Id.*

An economic study from *Discrete Dynamics in Nature and Society* predicted that this more stringent tax scheme would significantly reduce pollution and increase China's environmental quality.¹⁰⁰ Analysts estimate that the tax could generate up to fifty billion yuan (approximately 7.68 billion US dollars) each year.¹⁰¹ From January to November 2018, China's investigations of environmental regulation violations increased by more than 102 percent, with 35,600 violations.¹⁰²

The policy does contain many flaws that reduce the efficiency of attaining the program's overarching goal of tackling China's pollution crisis. First, the discretion afforded to local authorities to decide pollution tax rates could lead heavy polluter manufacturers to simply shift their location to a more tax-friendly province and continue inflicting the same serious environmental harms.¹⁰³ This would counter the entire purpose of the tax and act as a new loophole for large offending enterprises. While cities like Beijing have imposed high rates on emissions in response to national pressures, other manufacturing hubs like Guangdong continue to retain their status as manufacturer-friendly provinces with low rates of pollution taxes.¹⁰⁴

Second, it carves out two key exemptions that will considerably affect China's textile factories' environmental practices. The first carveout incentivizes polluters to engage in waste treatment practices before disposal. Manufacturers are completely exempted from the tax if they "discharge pollutants directly to centralized sewage and waste treatment facilities and those that dispose of solid wastes in facilities that meet the local

100. Tu & Wang, *supra* note 93.

101. *China Starts Collecting Environmental Tax*, XINHUANET (Jan. 1, 2018), http://www.xinhuanet.com/english/2018-01/01/c_136865174.htm [<https://perma.cc/5DRX-7HWU>] (arguing that the journal, *Discrete Dynamics in Nature and Society*, focuses on the "utilization of iterative mathematical models—systems of difference equations—to describe the behavior of complex systems," generating discrete modeling for complex non-linear phenomena found in the natural and social sciences).

102. *Id.*

103. Cicienia, *supra* note 69.

104. *Id.*

and national standards.”¹⁰⁵ This could deter textile factories and dye houses from simply dumping untreated wastewater directly into waterways and start using biodegradable chemicals that could be chemically removed from the wastewater.¹⁰⁶

However, even if a manufacturer does utilize a centralized treatment plant, factories often produce enormous volumes of wastewater that exceed a plant’s capacity.¹⁰⁷ Many textile dyeing factories continue to ignore environmental regulations or avoid detection by dumping wastewater at night or constructing clandestine discharge pipes.¹⁰⁸ Therefore, pressure needs to come from large brands to hold their suppliers accountable by encouraging construction of water treatment plants and investing in the switch from excessive synthetic, toxic chemical dyes to more natural dyes.¹⁰⁹

This policy may incentivize larger brands to construct treatment facilities so they fall within the tax carveout; however, secret dumping practices present a more difficult ethical issue that could be ameliorated by pressures from the court of public opinion when legal enforcement fails. Reports by the IPE databases may help shine a light on these violations. However, IPE databases cannot account for every factory’s improper practice, especially when producers perform them behind closed doors. Consumers increasingly demand more sustainably produced clothes from the wider fashion industry, which has led to industry-wide international eco-friendly pledges and restructured marketing to emphasize their commitment to sustainably sourced textiles.¹¹⁰ Improper wastewater dumping should be more publicly regarded within this mainstream discussion and marketing of sustainable

105. *Id.*

106. *See id.*

107. Priya Chauhan, *Textile Dyeing Industry is Slowly Killing Rivers in Asian Countries*, PLANET CUSTODIAN (Sept. 9, 2021), <https://www.planetcustodian.com/dyeing-industry-polluting-asian-rivers/15641/> [<https://perma.cc/Q4DU-ACJ2>].

108. *Id.*

109. *Id.*

110. Rachel Cernansky, *The Fashion Takeaways from COP26*, VOGUE BUS. (Nov. 18, 2021), <https://www.voguebusiness.com/sustainability/the-fashion-takeaways-from-cop26> [<https://perma.cc/4Y7Y-NG9X>].

fashion. The public discourse of the environmentalism of fashion often focuses on the important issue of fast fashion and textile waste; this discussion must include other forms of pollutants, including improper dumping of noxious wastewater and holding brands accountable for turning a blind eye to the harmful actions of their supply chains.

China's new tax policy also fails to include carbon dioxide in the enumerations of offending pollutants.¹¹¹ The textile industry relies on coal for its energy-intensive processing of textiles and subsequent transportation of finished garments.¹¹² This exemption enables China to continue relying on burning coal as its primary energy source.¹¹³ Carving out coal emissions from the tax policy diminishes the policy's effectiveness in tackling the country's and textile industry's impacts on air pollution.

C. INITIATIVES

Achieving the overarching green goals of China's Environmental Protection Tax will require additional complementary measures for effective enforcement of the tax policy.¹¹⁴ Effectuating meaningful environmental change requires that local authorities diligently monitor factories' environmental pollutants and that international parties and brands apply external pressures to build treatment plants and shift the industry away from coal dependency.¹¹⁵ Several large brands have risen to the challenge and spearheaded initiatives to specifically address water pollution.

111. Zhang, *supra* note 73.

112. Cicensia, *supra* note 69.

113. *Id.*

114. *See id.* ("Both the Environment Protection Tax and the Water Pollution Prevention and Control Law come in the context of larger moves by the Chinese government to push for an 'ecological civilization' calls for green growth and lays out specific targets for water, air, and soil quality, in addition to the development of clean technologies. Investors should expect further moves in environmental law enforcement.").

115. *Id.*

1. Brands Pilot Water Pollution Initiatives

Brands possess financial leverage to force supply chains to comply with national and international wastewater standards, as well as their own sustainability objectives.¹¹⁶ H&M demonstrated this influence when it required suppliers to report their wastewater performance using the Higg Index, a standardized system measuring supply chain sustainability.¹¹⁷ It also piloted Colorfix, an industrial dyeing alternative technology that does not use hazardous chemicals and reduces water consumption up to ninety percent.¹¹⁸

Brands can also join coalitions dedicated to knowledge-sharing and transitioning to more sustainable practices. Zero Discharge of Hazardous Chemicals Initiative (“ZDHC”) is a conglomerate campaign created specifically to address the textile industry’s water pollution through hazardous chemical discharge. ZDHC’s membership includes “leading brands, value chain affiliates, and associate contributors committed to advancing towards zero discharge of hazardous chemicals in the textile, leather, and footwear value chain, thereby reducing harm to the environment and human well-being.”¹¹⁹ It is committed to reducing the amount and type of hazardous chemicals discharged in wastewater by supply chains.¹²⁰

116. Angeli Mehta, *Apparel Brands Join Forces to Clean Up Their Act in Bangladesh*, REUTERS EVENTS: SUSTAINABLE BUS. (Nov. 29, 2018), <https://www.reutersevents.com/sustainability/apparel-brands-join-forces-clean-their-act-bangladesh> [https://perma.cc/S6VT-F6EB].

117. *Id.*; see also Alyssa Danigelis, *CDP: Fashion Companies Slow to Recognize Water Pollution Risks*, ENV’T + ENERGY LEADER (Sept. 14, 2020), <https://www.environmentalleader.com/2020/09/cdp-fashion-water-pollution-risks/> [https://perma.cc/779Q-GHKQ].

118. *Id.*

119. *Collaboration & Impact: Zero Discharge of Hazardous Chemicals Programme*, SUSTAINABLE APPAREL COAL., <https://apparelcoalition.org/collaboration-impact-zdhc/> [https://perma.cc/YQ8M-6N8W].

120. David Worford, *Manual Aims to Improve Fabric Dyeing Sustainability in Fashion Industry*, ENV’T + ENERGY LEADER (Oct. 13, 2021), <https://www.environmentalleader.com/2021/10/manual-aims-to-improve-fabric-dyeing-sustainability-in-fashion-industry/> [https://perma.cc/2DGX-J4KX].

ZDHC partners with the Sustainable Apparel Coalition (SAC), a non-profit alliance of leading retailers, manufacturers, and NGOs committed to making the fashion industry more sustainable.¹²¹ ZDHC collaborates with SAC in developing the Higg Facility Environmental Module's ("Higg FEM") chemical assessments. Higg FEM assesses facilities' environmental performance concerning water use, wastewater management, and chemical use and management.¹²² ZDHC and SAC could assist in demanding environmental transparency of suppliers and measure the efficiency of piloted innovative programs like H&M's Colorfix technologies.

2. New Manual: How to Dye More Sustainably

In the wake of high consumer demand for more eco-friendly clothing practices, it is in brands' financial interest to transition to greener practices.¹²³ Many brands, however, may not know the best way to make textile processing more sustainable. Brands have begun experimenting with more sustainable dyes (i.e., moving away from azo dyes for natural dyes) and recycled fabrics, and have implemented new technologies to transform the norms of textile processing.¹²⁴

121. *About The Sustainable Apparel Coalition*, SUSTAINABLE APPAREL COAL., <https://apparelcoalition.org/the-sac/> [<https://perma.cc/F45L-YBGA>].

122. *Higg FEM-Higg Facility Environmental Module*, CONTROL UNION CERTIFICATION PROGRAMS, <https://certifications.controlunion.com/en/certification-programs/certification-programs/higg-fem-higg-facility-environmental-module> [<https://perma.cc/W226-8N58>].

123. Andria Cheng, *More Consumers Want Sustainable Fashion, But Are Brands Delivering It?*, FORBES (Oct. 17, 2019), <https://www.forbes.com/sites/andriacheng/2019/10/17/myore-consumers-want-sustainable-fashion-but-are-brands-delivering-it/?sh=143ebfbb34a5> [<https://perma.cc/32MP-78AC>] ("Getting sustainability right pays dividends as consumers, led by millennials and Gen Z, are demanding it: online searches for 'sustainable fashion' tripled between 2016 and 2019.").

124. *Ralph Lauren and Dow Open-Source New Process to Transform How the Fashion Industry Dyes Cotton*, RALPH LAUREN CORP. (Oct. 13, 2021), https://corporate.ralphlauren.com/pr_211013_RalphLaurenxDow.html [<https://perma.cc/XC4H-XCNK>].

On October 13, 2021, Ralph Lauren and Dow released an open-sourced manual that explains how to efficiently dye cotton more sustainably through a process called ECOFAST Pure Sustainable Textile Treatment.¹²⁵ It was released as a step-by-step explanation of Dow's cationic cotton treatment that relies on existing dyeing equipment. Manufacturers pretreat the cotton fabric with ECOFAST Pure and in doing so "significantly reduce(s) the amount of water, chemicals and energy needed to color cotton, by enabling up to 90% less process chemicals, 50% less water, 50% less dyes, and 40% less energy without sacrificing color or quality."¹²⁶ The manual intends to encourage the rest of the textile industry to adopt the more sustainable cotton-dyeing method as a customary practice.¹²⁷

The release of this manual is part of Ralph Lauren's Color on Demand Initiative.¹²⁸ As a less resource-intensive dyeing system, ECOFAST Pure provides an opportunity to mitigate the textile industry's impact on water pollution and water scarcity. Ralph Lauren has committed to use the treatment to dye more than eighty percent of its cotton, with the goal of standardizing it as the mainstream industry practice and becoming the first scalable zero wastewater cotton dyeing system.¹²⁹ Changing the way the industry processes textiles can help mitigate water pollution in China and manufacturers across the globe.

D. WATER POLLUTION: SUMMARY

Improper dumping of untreated hazardous wastewater from textile processing has had disastrous effects on textile town's waterways and surrounding communities' health in China. China's 2018 tax reform, IPE public databases, and knowledge-sharing campaigns about innovative environmental dyeing practices all seek to mitigate this problem. These measures demand better

125. *Id.*

126. *Id.*

127. *Id.*

128. *Id.*

129. *Id.*

environmental accountability and incentivize greener textile treatment technologies.

III. AIR POLLUTION

Studies by the National Resource Defense Council reveal Chinese textile factories produce three billion tons of soot each year when burning coal for energy to keep these factories running; this pollutes the air of local communities with contaminants linked to respiratory and cardiac diseases.¹³⁰ According to reports by the United Nations Environment Program, 1.2 billion tons of carbon dioxide, or eight to ten percent of global carbon emissions, are attributed to the fashion industry.¹³¹ That outpaces the emissions of all international flights and maritime shipping.¹³² Textile demands are expected to increase over the next decade and at its current rate, the industry's greenhouse gas emissions are expected to rise by more than fifty percent by 2030.¹³³

The majority of the textile industry's contribution to air pollution arises from the greenhouse gases emitted from burning coal to power the textile factories and subsequent distribution.¹³⁴ China's textile factories have faced increasing backlash for their considerable energy consumption as local governments have begun pressuring manufacturers to curb emissions to meet the nation's energy efficiency targets.¹³⁵ China's economy is largely

130. NAT'L RES. DEF. COUNCIL, *supra* note 11.

131. UN Alliance for Sustainable Fashion Addresses Damage of "Fast Fashion," UN ENVIRONMENT PROGRAM (Mar. 14, 2019), <https://www.unep.org/news-and-stories/press-release/un-alliance-sustainable-fashion-addresses-damage-fast-fashion> [<https://perma.cc/5YW9-KUPY>].

132. *Id.*

133. *How Much Do Our Wardrobes Cost to the Environment*, THE WORLD BANK (Sept. 23, 2019), <https://www.worldbank.org/en/news/feature/2019/09/23/costo-modamedio-ambiente> [<https://perma.cc/CQ6W-338Z>].

134. Jian Liu et al., *Analysis of CO2 Emissions in China's Manufacturing Industry Based on Extended Logarithmic Mean Division Index Decomposition*, 11 SUSTAINABILITY 1, 4 (Jan. 4, 2019).

135. Alfred Cang, *Beijing Pressures Top China Manufacturing Hub to Curb Power Use*, BLOOMBERG (Sept. 21, 2021), <https://www.bloomberg.com/news/articles/2021-09-21/beijing-pressures-top-china-manufacturing-hub-to-curb-power-use> [<https://perma.cc/6NKT-6K4L>].

dependent upon coal and therefore most factories are powered by burning coal, the dirtiest fossil fuel.¹³⁶

It is hard to quantify the textile industry's impact on air pollution in China, but some sources have generated approximations. Estimates indicate that China's textile industry contributed four to eight billion tons of greenhouse gases in 2000 to 2011 and 18.5 billion tons in 2020.¹³⁷ Although China currently possesses environmental standards imposing restrictions on factories' air pollutant emissions, these regulations have long been criticized by many individuals including NGOs and environmental activists for being too relaxed, and fines for standards violations often go unenforced.¹³⁸ The new tax reforms may help address this issue but, as previously discussed, there are flaws in the tax system that could allow polluters to continue offending.¹³⁹

Global pressures found in international pledges could provide additional incentives needed to alter China's longstanding history of coal dependence. From October 31 to November 13, 2021, almost every country across the world convened in Glasgow for the global climate summit, the 26th United Nations Climate Change Conference ("COP26").¹⁴⁰ China pledged to cut emissions in accordance with the COP26 agreements.¹⁴¹ Furthermore, the fashion industry composed its own pledges of sustainability with

136. Liu et al., *supra* note 134; see *Fossil Fuels and Climate Change: The Facts*, CLIENTEARTH (Nov. 11, 2020), <https://www.clientearth.org/latest/latest-updates/stories/fossil-fuels-and-climate-change-the-facts/> [<https://perma.cc/CVW9-T7V8>]. Coal is often characterized as the dirtiest fossil fuel because it is the most carbon-intensive and therefore when burned it emits the highest amount carbon dioxide in comparison to all the fossil fuels; coal is "responsible for over 0.3°C of the 1°C increase in global average temperatures – mak[ing] it the single largest source of global temperature rise." *Id.*

137. Beijia Huang et al., *Energy-related GHG Emissions of the Textile Industry in China*, 119 RES., CONSERVATION AND RECYCLING 69, 72-76 (2017), <https://doi.org/10.1016/j.resconrec.2016.06.013> [<https://perma.cc/A5QR-N26X>].

138. CHINA WATER RISK, *supra* note 18.

139. Cicensia, *supra* note 69.

140. Cernansky, *supra* note 110.

141. *Id.*

the launch of the United Nations Fashion Industry Charter for Climate Action.¹⁴²

A. FASHION INDUSTRY CHARTER FOR CLIMATE ACTION

The Fashion Industry Charter for Climate Action aims to commit stakeholders to discuss and implement widespread change across the industry.¹⁴³ Brands, suppliers, and retailers came together to collaborate on solving complex environmental issues that no one party can solve on its own.¹⁴⁴ The fashion industry represents a significant portion of global greenhouse gas emissions, so this Charter represents an opportunity for the private sector to assist in meeting goals set under the Paris Agreement, which estimates indicate are currently in jeopardy of not being met.¹⁴⁵ Transforming the fashion industry with innovative technologies and practices could not only make an impact on global emissions but also inspire other industries and countries to implement similar initiatives.¹⁴⁶

1. Background and Progress of Working Groups

The Charter originally launched in 2018 at COP24, assembling a conglomerate of powerful stakeholders in the fashion industry to implement climate action.¹⁴⁷ The overarching objective is to meet the Paris Agreement's goal of limiting global warming to 1.5 degrees Celsius by achieving net-zero greenhouse gas emissions in the fashion industry by 2050.¹⁴⁸ The 2021 revised charter commits

142. *Id.*

143. *Fashion Industry Charter for Climate Action: Introduction (Ch 1)*, U.N. CLIMATE CHANGE, <https://www.fashioncharter.org/chapters/introduction> [<https://perma.cc/H2MA-R5S5>] (last visited Apr. 23, 2022).

144. *Id.*

145. *Id.*

146. *Id.*

147. *About the Fashion Industry Charter for Climate Action*, U.N. CLIMATE CHANGE, <https://unfccc.int/climate-action/sectoral-engagement/global-climate-action-in-fashion/about-the-fashion-industry-charter-for-climate-action> [<https://perma.cc/9X5G-5YAY>] (last visited Apr. 23, 2022).

148. *Id.*

to reducing the industry's emissions by fifty percent by 2030 against a baseline of no earlier than 2015.¹⁴⁹ This was an increase from the former target of thirty percent industry reduction.¹⁵⁰ In addition, the charter outlines pathways to decarbonization with Science-Based Targets, or methods set by the Science-Based Targets Initiative—a partnership between CDP, the United Nations Global Compact, World Resources Institute (“WRI”), and the World Wide Fund for Nature (“WWF”)—to enable private sector climate action.¹⁵¹

One-hundred-and-thirty leading brands signed the Charter including Burberry, Chanel, Guess, Kering Group, Ralph Lauren, and Stella McCartney.¹⁵² Notably, LVMH, the owner of Louis Vuitton, Dior, and Givenchy decided to sign on at the 2021 Glasgow Conference.¹⁵³ Additionally, organizations like the Better Cotton Initiative, China National Textile and Apparel Council, China Textile Information Centre, and Global Organic Textile Standard have signed on to contribute to discussions of reducing fashion's carbon footprint.¹⁵⁴ The Charter provides a forum for dialogue between brands, retailers, suppliers, and organizations to achieve Sustainable Development Goals and promote transparency.¹⁵⁵

In 2021, the Charter signatories met at COP26 to discuss the past year's progress and future objectives.¹⁵⁶ The Charter created seven working groups: Decarbonization Pathway; Raw Materials; Manufacturing & Energy; Policy Engagement; Financial Tools; Low Carbon Logistics; and Brand, Retailer Owner or Operated

149. Sophie Hirsh, *100+ Fashion Brands Have Signed the UN Fashion Industry Charter for Climate Action*, GREENMATTERS (Nov. 25, 2020), <https://www.greenmatters.com/p/un-fashion-industry-charter-climate-action> [<https://perma.cc/QD2D-36YC>].

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.*

154. *Id.*

155. *Id.*

156. *Fashion Industry Charter for Climate Action: Working Groups (Ch 4)*, U.N. CLIMATE CHANGE, <https://www.fashioncharter.org/chapters/working-groups#manufacturing-energy> [<https://perma.cc/46N4-6JNZ>] (last visited Apr. 23, 2022) [hereinafter (*Ch 4*), U.N. CLIMATE CHANGE].

Emissions.¹⁵⁷ Each group dedicated efforts to address specific elements of the initiative's larger sustainability objectives.¹⁵⁸

Charter signatories agreed to publicly report their greenhouse gas emissions, so the Decarbonization Pathway and GHG Emission Reductions Working Group worked on assessing reporting measures and declared that the CDP ("Carbon Disclosure Project") would act as the Charter's standard reporting platform.¹⁵⁹ Members also developed a document called the "Playbook for Climate Action" to educate less experienced fashion companies on climate decarbonization initiatives.¹⁶⁰ Furthermore, the group released the Race to Zero Milestone document to provide a valuable resource overview of short- and long-term ambitions and successful milestones.¹⁶¹

The Raw Materials Working Group is committed to the Charter principles of "prioritizing materials with low-climate impact without affecting negatively other sustainability aspects."¹⁶² They prepared a report titled "Identifying Low Carbon Sources of Cotton and Polyester Fibers" to holistically evaluate the sustainability of current fiber processing practices, highlight alternative methods of material production, and issue a call to action to increase global percentages of recycled polyester.¹⁶³ This group plans to issue reports on other raw materials including human-made cellulosic fibers and animal fibers.¹⁶⁴

The Low-Carbon Manufacturing and Energy Group is focused on adhering to the Charter principles of pursuing clean, energy-efficient measures, and committing factories and Charter members by 2025 to not install new coal-powered boilers or power

157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

161. *Id.*

162. *Fashion Industry Charter Working Groups*, U.N. CLIMATE CHANGE, <https://unfccc.int/climate-action/sectoral-engagement/global-climate-action-in-fashion/fashion-industry-charter-working-groups#eq-2> [https://perma.cc/NM4Z-Z9WE] (last visited Apr. 23, 2022).

163. (*Ch 4*), U.N. CLIMATE CHANGE, *supra* note 156.

164. *Id.*

generators on tier one and two sites.¹⁶⁵ From 2019 to 2020, this Group worked with the Policy Engagement Working Group to compile a summary analyzing economic and political strategies to phase out coal and implement energy-efficient renewable energy in six key manufacturing markets, including China, Bangladesh, Cambodia, Indonesia, Italy, and Vietnam.¹⁶⁶ The Policy Engagement Group will continue engaging with key market countries to accelerate the Charter's goals.¹⁶⁷

The Financing Tools Working Group focused on partnering with experts, policymakers, investors, and the finance community to design a roadmap for financing decarbonization climate action strategies.¹⁶⁸ Additionally, they prepared case studies of emerging financial tools like green bonds and sustainable supply chain finance to demonstrate how innovative financing could be utilized in the fashion industry.¹⁶⁹ Their educational webinars direct suppliers, brands, and investors to the financial tools needed to ensure a brand's low-carbon future.¹⁷⁰

The Low Carbon Logistics, or Promoting Broader Climate Action, Working Group focuses on the goal of "communicat[ing] a shared vision and understanding through the development of a common strategy and messaging, including by championing climate action within the fashion industry through an enhanced and trust-building dialogue with relevant stakeholders."¹⁷¹ The Brand/Retailer Owned or Operated Emissions Working Group developed guidance for greenhouse gas emission reduction for brands and retailers.¹⁷² It primarily focused on best practices for brands' transitions to sourcing renewable energy.¹⁷³

165. *Id.*

166. *Id.*

167. *Id.*

168. *Id.*

169. *Id.*

170. *Id.*

171. U.N. CLIMATE CHANGE, *supra* note 162. The Group was discontinued in 2021 after finding that forums like the Clean Cargo and Smart Freight Centre would better engage with logistical issues.

172. (Ch 4), U.N. CLIMATE CHANGE, *supra* note 156.

173. *Id.*

These working groups have the potential to provide needed uniform guidance to the industry. The unique structure of the Fashion Charter, created in a manner that mimics the structure of COP26, presents a unique challenge for enforcement of signatories' pledged commitments and implementation of the working groups' results. The agreements themselves do not legally bind parties to implement or try to enforce these pledges.¹⁷⁴ A common critique of these types of international treaties is that they fail to effectively achieve their goals of cutting emissions because they lack legally enforceable substantive penalties for nonenforcement.¹⁷⁵ Each signatory could make these agreements legally binding by implementing accompanying legal standards in their own country or corporation.¹⁷⁶ Some countries such as Britain and New Zealand amended their laws to incorporate COP26 emission-cutting targets; however, most have not followed their lead.¹⁷⁷ Instead, parties rely on intangible societal and political pressures to join the list of signatories and encourage enforcement.¹⁷⁸

The Fashion Charter's working groups provide reports of useful information to be used across the industry. Groups invest substantial time and resources to provide guidance to be shared to the public for industry-wide compliance and implementation. As consumers demand more sustainable practices, brands increasingly look to evaluate their own practices. Some brands, especially those smaller and less established may not know exactly what sustainable practices entails in the textile industry. Additionally, if all brands commit to greater sustainability and standardize innovative, energy-efficient practices, then it becomes easier to standardize the textile manufacturing practices of supply chains in China. China's textile industry plays a critical role as a key

174. Andrea Januta, *Analysis: As Countries Wrangle Over Climate Pledges, How Enforceable Are They?*, REUTERS (Nov. 13, 2021), <https://www.reuters.com/business/cop/countries-wrangle-over-climate-pledges-how-enforceable-are-they-2021-11-12/>.

175. *Id.*

176. *Id.*

177. *Id.*

178. *Id.*

industry leader in dictating whether these pledged polices and working groups' guidance are implemented across the industry.

2. 2021 Summit and Beyond

The Charter met again at the 2021 Glasgow Conference to evaluate their progress and reconsider their commitments.¹⁷⁹ Niclas Svenningsen, manager of Global Climate Action at UN Climate Change, stated at the conference that Charter signatories “realized [the 2018 Fashion Charter] isn’t enough any longer We need to make it stronger, more concrete, more ambitious.”¹⁸⁰ The 2021 Summit revised the Charter to establish more ambitious goals while members reiterated their commitment to climate action.¹⁸¹ As previously mentioned, they amended their commitment from thirty percent reduction in greenhouse gas emissions to fifty percent reduction.¹⁸²

The 2021 Charter meeting also sought to implement new changes addressing various types of materials designers select and direct manufacturers to process.¹⁸³ Global fiber production has increased from 58 million tons in 2000 to 109 million tons in 2020 with an expected increase to 146 million tons in 2030.¹⁸⁴ The textile industry is on an exponential trajectory of high demand; therefore, amending and strengthening the Charter’s sustainability targets in 2021 come at an opportune time of an exploding textile industry and worsening climate that will help dictate the future of environmentalism in the fashion industry.¹⁸⁵

179. Chan, *supra* note 12.

180. *Id.*

181. *Fashion Industry Steps Up Climate Ambition with Renewed Charter*, U.N. CLIMATE CHANGE (Nov. 8, 2021), <https://unfccc.int/news/fashion-industry-steps-up-climate-ambition-with-renewed-charter> [<https://perma.cc/Z84C-S9PF>].

182. *Id.*

183. *Id.*

184. *Preferred Fiber and Materials Market Report 2021*, TEXTILE EXCH. (Aug. 17, 2021), <https://textileexchange.org/textile-exchange-preferred-fiber-and-materials-market-report-2021/> [<https://perma.cc/8ZJW-GKNV>].

185. *Id.*

Textile Exchange, a global non-profit organization dedicated to accelerating widespread industry adoption of more environmentally friendly raw materials, submitted a trade request to include a goal of sourcing one hundred percent “priority” materials by 2030; it garnered the support of over fifty of the largest global textile and fashion companies.¹⁸⁶ In response, the signatories subsequently revised the Charter to set this new target for “priority” materials which includes cotton, viscose, polyester, wool, and leather.¹⁸⁷ This class of raw materials is more environmentally friendly as it “can be recycled in a closed loop, and [is] deforestation-free, conversion-free (meaning natural ecosystems are not destroyed in the process) and produced using regenerative practices.”¹⁸⁸ Stakeholders at COP26 discussed the need for complementary national policies that create financial incentives for brands to use these materials in order to actually meet this new target.¹⁸⁹ Over fifty various companies and brands including Chloé, Kering, and Stella McCartney have called on national governments to design supplemental financial policies to support the Charter’s provisions to ensure these targets are not merely fanciful or aspirational.¹⁹⁰

The new agreement also emphasizes brands working with suppliers to cut back coal emissions.¹⁹¹ The Charter committed signatories to “phas[e] out coal from tier one and tier two suppliers by 2030, including no new coal power by 2023, as well as helping suppliers to implement science-based targets by the end of 2025.”¹⁹² Brand and supplier collaboration is necessary as most of the emissions that these brands committed to reducing originate

186. Chan, *supra* note 12; see also *We Are Textile Exchange*, TEXTILE EXCH., <https://textileexchange.org/about-us/> [<https://perma.cc/ST3G-ACC8>] (last visited Apr. 23, 2022).

187. Chan, *supra* note 12.

188. *Id.*

189. *Id.*

190. *Id.*

191. *Id.*

192. *Id.*

in the supply chain.¹⁹³ Therefore, coal phase-outs are particularly key in priority countries like China, hubs of textile supply chains with economies overwhelmingly reliant on coal to power its factories.¹⁹⁴ Charter working groups are currently focused on understanding why factories still use coal-fired boilers and what viable alternatives could be used to replace coal.¹⁹⁵

The Charter requires signatory brands to submit plans on how they aim to achieve these new targets, with updates every three years.¹⁹⁶ Some argue that the current Charter does not go far enough by failing to commit to transitioning the industry's supply chain to one hundred percent renewables by 2030.¹⁹⁷ Others believe that the goals are adequate, but achieving them will require overcoming the more difficult issue of enforcement.¹⁹⁸ Maxine Bedat, founder of the New Standards Institute, reiterated this view stating that, "What's good is that it sets science-based targets – this is the gold standard for emissions reductions, so that is very meaningful . . . [But] what is the penalty if these targets are not achieved?"¹⁹⁹

Even the official 2021 statements from the Charter's founders acknowledge that more ambitious work needs to be done.²⁰⁰ However, this Charter represents an important first step. It brings together the multiple levels of the fashion and textile industry to collaborate on effecting urgent change.

193. *Fashion Industry Charter for Climate Action: Looking Ahead (Ch 6)*, U.N. CLIMATE CHANGE, <https://www.fashioncharter.org/chapters/looking-ahead> [<https://perma.cc/Y4NC-GYSE>] (last visited Apr. 23, 2022) [hereinafter (*Ch 6*), U.N. CLIMATE CHANGE].

194. *Id.*

195. *Id.* The 2021 Charter detailed future goals to increase efforts to replace coal with new renewable energy and energy efficient technologies in priority countries. There is a clear focus on renewable sources especially solar power complemented by an effort to work with policymakers to identify the viability of other alternative sources such as biomass, natural gas, and rice husk to replace coal.

196. Chan, *supra* note 12.

197. *Id.*

198. *Id.*

199. *Id.*

200. (*Ch 6*), U.N. CLIMATE CHANGE, *supra* note 193.

B. COP 26 SUMMIT

The COP26 summit marked another important step forward in achieving global commitments to climate action, the effects of which will impact all industries.²⁰¹ As one of the largest emitters of greenhouse gases and a key manufacturing power, China is in a key position to create far-reaching change that will significantly combat climate change's effects across the globe.²⁰² Governments, corporations, and NGOs discussed accelerating commitments made during the Paris Agreement at the COP26 summit to achieve the ultimate goal of global net-zero emissions by mid-century.²⁰³

1. Key Takeaways of the COP26 Agreement

The Paris Agreement set a goal of limiting the average global temperature rise to “well below 2 degrees Celsius” above pre-industrial levels with an aim for 1.5 degrees Celsius.²⁰⁴ With new research revealing more alarming predictions, countries agreed to focus on aiming for 1.5 degrees Celsius.²⁰⁵ Parties were also encouraged to submit updated and more ambitious Nationally Determined Contributions (“NDCs”) as quickly as possible before

201. Kelly Kimball, *The Gap Between Talk and Action on Climate is on Full Display in Glasgow*, FOREIGN POLICY (Nov. 10, 2021), <https://foreignpolicy.com/2021/11/10/climate-change-cop26-photo-essay-china-india- united-nations-arctic-indigenous-carbon-emissions/> [https://perma.cc/KA6R-6PGM].

202. *Id.*

203. *Id.*

204. Paris Agreement to the U.N. Framework Convention on Climate Change art. 2.1(a), Dec. 12, 2015, T.I.A.S. No. 16-1104, https://unfccc.int/sites/default/files/english_paris_agreement.pdf [https://perma.cc/SV24-6NW7] (“Holding the increase in the global average temperature to well below 2 C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.”).

205. James Bee et al., *COP26: Key Takeaways from the Glasgow Summit*, JD SUPRA (Nov. 24, 2021), <https://www.jdsupra.com/legalnews/cop26-key-takeaways-from-the-glasgow-1740863/> [https://perma.cc/37VV-YHKM]. It should be noted that even though countries agreed to aim for this more ambitious target in discussions, the finalized Glasgow Agreement did not contain the 1.5 degrees Celsius commitment. Rather, it retained the “well below 2 degrees Celsius” language to garner complete consensus on the Agreement.

the next COP27 summit in 2022.²⁰⁶ NDCs report each nation's plan for emissions reduction and compliance with the Agreement.²⁰⁷ This revision hastens the timeline for submissions from the Paris Agreement's initial vision of updated NDCs every five years.²⁰⁸

Governments again agreed on the need for much greater financial support to developing countries, historically lower greenhouse gas emitters, that will face climate change's effects more catastrophically.²⁰⁹ Developing countries generally lack the same financial resources available to wealthier nations to implement climate mitigation measures to protect infrastructure, water, agriculture, and health:

[Climate change's] adverse impacts will be most striking in the developing nations because of their geographical and climatic conditions, their high dependence on natural resources, and their limited capacity to adapt to a changing climate. Within these countries, the poorest, who have the least resources and the least capacity to adapt, are the most vulnerable.²¹⁰

The summit acknowledged that developed countries have yet to live up to their previous pledge of US\$100 billion annually to support developing countries.²¹¹ This was a highly publicized failure.²¹² Nations were asked to "at least double" their climate finance adaptation commitment by 2025.²¹³

206. *Id.*

207. *Id.*

208. *Id.*

209. *Id.*; see also LARRY PARKER & JOHN BLODGETT, CONG. RSCH. SERV., RL32721, GREENHOUSE GAS EMISSIONS: PERSPECTIVES ON THE TOP 20 EMITTERS AND DEVELOPED VERSUS DEVELOPING NATIONS 3 (2008) ("Annex I [non-developing] nations account for about 72% of total carbon dioxide emissions that accumulated in the atmosphere between 1950 and 2000. Thus, to the extent cumulative CO₂ may be contributing to global warming, the Annex I nations bear the preponderant responsibility.").

210. Jonathan Harris, et al., *The Economics of Global Climate Change, A GDAE Teaching Module on Social and Environmental Issues in Economics*, GLOB. DEV. AND ENV'T INST. TUFTS UNIV. 30 (2017), https://www.bu.edu/eci/files/2019/06/The_Economics_of_Global_Climate_Change.pdf [<https://perma.cc/SU34-3ZR9>].

211. Bee et al., *supra* note 205.

212. *See id.*

213. *Id.*

Parties finally agreed upon Article 6 of the Paris Agreement after six years of discussion, implementing foundational rules for international carbon markets.²¹⁴ Finalization of this so-called Paris Agreement Rulebook was a critical and controversial step forward in determining how nations can establish global carbon markets to reduce emissions.²¹⁵ It clarified global carbon credit transfers when quantifying nations' carbon offsets.²¹⁶ After the Paris Agreement was signed, concern grew that signatory countries would carry over old carbon offset credits from the Kyoto Protocol to use in meeting their new carbon emission commitments.²¹⁷

The Kyoto Protocol preceded the Paris Agreement as an international climate diplomatic convention dedicated to curbing carbon emissions.²¹⁸ Adopted in 1997, the agreement bound forty-one industrialized countries and the European Union to reduce six specific greenhouse gas emissions to 5.2 percent below pre-1990 levels by 2012.²¹⁹ The protocol did not bind developing nations, leaving China, considered a developing nation at the time of agreement in 1997, outside of the discussions.²²⁰ The United States chose not to participate in or ratify the Kyoto Protocol, justifying nonparticipation in part because of China's exclusion.²²¹ The Paris

214. Paris Agreement to the United Nations Framework on Climate Change, art. 6, Dec. 12, 2015, U.N.T.S. 1-54113, https://unfccc.int/sites/default/files/english_paris_agreement.pdf [<https://perma.cc/3BZ2-D4M>].

215. See Karin Rives, *COP26 Deal Reached: Nations Target Coal, Pledge More Climate Action in 2022*, S&P GLOB. (Nov. 15, 2021), <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/cop26-deal-reached-nations-target-coal-pledge-more-climate-action-in-2022-67629702> [<https://perma.cc/9Q8Q-AW4X>].

216. *Id.*

217. *Id.*

218. Caleb Strom, *Difference Between Kyoto Protocol and Paris Agreement*, DIFFERENCE BETWEEN SIMILAR TERMS (Oct. 22, 2020), <http://www.differencebetween.net/miscellaneous/politics/difference-between-kyoto-protocol-and-paris-agreement/> [<https://perma.cc/89W4-J2NN>].

219. *Id.*

220. *Id.*

221. *Paris Agreement*, ENCYC. BRITANNICA (Oct. 28, 2021), <https://www.britannica.com/topic/Paris-Agreement-2015> [<https://perma.cc/B7HZ-5HTN>].

Agreement presented a modern opportunity to redesign new emission reduction objectives that would bind all countries.²²²

When deciding how to track signatories' progress in executing the Paris Agreement's new commitments, the convention first addressed whether industrialized nations could roll over previous carbon reduction progress under the Kyoto Protocol to account for progress in achieving the Paris Agreement's superseding goals.²²³ Article 6 clarifies that credit carryovers from the Kyoto Protocol are limited to 120 million metric tons of carbon for only the first round of commitments.²²⁴ Kelley Kizzier, the Environmental Defense Fund's Vice President for Global Climate stated, "The agreed Article 6 rules give countries the tools they need for environmental integrity, to avoid double-counting [emission reductions] and ultimately to clear a path to get private capital flowing to developing countries."²²⁵

Another fervent topic of discussion was devising language in the agreement about coal usage. The final pact committed countries to "accelerate efforts towards phasing down unabated coal power."²²⁶ This language was fiercely debated against the more ambitious draft language of "phas[ing] out" coal, leaving many negotiators angered by a weaker pledge.²²⁷ However, this does mark the first COP pact that explicitly calls out a particular fossil fuel.²²⁸ China staunchly fought alongside India's negotiators for the more diluted language; the two textile industry leaders' economies rely heavily on coal.²²⁹ This change in language demonstrates the unique and influential position China stands in as a global driver in energy and climate action. The next few years will be critical in understanding whether China and its textile

222. *Id.*

223. Rives, *supra* note 215.

224. *Id.*

225. *Id.*

226. Bee et al., *supra* note 205.

227. *Id.* ("[T]he draft issued by the UK earlier during COP26 used the expression 'phase out.'")

228. Rives, *supra* note 215.

229. *Id.*

industry will take action to diminish their dependency on coal or continue to rely on coal with separate carbon offset initiatives to meet their COP26 emission reduction goals.

2. China's Position in COP26

The overwhelming message of COP26 was the focus on coal. Chris Littlecott, an Associate Director for the climate change thinktank E3G, stated, "The focus on coal at COP26 was unprecedented and signals change."²³⁰ China's fight for weakened coal withdrawal language contrasted this new initiative.²³¹ China's President Xi was notably absent from the conference, which representatives attributed to COVID-19 concerns. Many officials interpreted his absence as a political statement that would make more aggressive emission negotiations more difficult to secure.²³² Most notably, President Biden called President Xi's lack of in-person appearance and less active participation in the summit a "big mistake."²³³ Xie Zhenhua, China's senior economics official and top climate negotiator led the delegation and committed the nation to continue climate work.²³⁴ President Xi stated that he remained in contact with the heads of state on the delegation team.²³⁵

President Biden overtly attacked President Xi's lessened involvement.²³⁶ He pointed to China's missed opportunity to exert stronger international influence and instead reflected a view of climate action as lacking urgency: "They've lost an ability to influence people around the world and all the people here at COP

230. *Id.*

231. *Id.* ("Coal-dependent China and India nearly jeopardized the final deal by insisting that "phaseout" of coal plants be changed to "phase-down.").

232. Thomas Colson, *Xi and Putin Are Snubbing the COP26 Climate Summit, Even Though China and Russia Produce Some 32% of Global CO2 Emissions*, BUS. INSIDER (Oct. 25, 2021), <https://www.businessinsider.com/china-xi-and-russia-putin-snubbing-cop26-2021-10> [<https://perma.cc/FC2U-K5UG>].

233. Zoe Strozewski, *China Shrugs Off Biden's Criticism for Skipping COP26, Highlights Renewable Energy Feats*, NEWSWEEK (Nov. 3, 2021), <https://www.newsweek.com/china-shrugs-off-bidens-criticism-skipping-cop26-highlights-renewable-energy-feats-1645470> [<https://perma.cc/G25Y-5U52>].

234. *Id.*

235. *Id.*

236. *Id.*

— the same way, I would argue, with regard to Russia [who was also notably absent without explanation from the summit].”²³⁷

Britain’s prime minister Boris Johnson provided less critical commentary on China’s involvement.²³⁸ He asserted that President Xi’s absence does not suggest significant disengagement from China in climate change deliberations and rather lauded their headways in renewable energy manufacturing, reforestation, and Beijing’s commitment to end overseas coal plant financing.²³⁹ Despite this acknowledgment, however, Johnson agreed that China, as a leading emitter of global carbon emissions, must commit to doing more to curb this issue.²⁴⁰

Many countries signed other initiatives outside the Glasgow Climate Pact to heighten their commitments.²⁴¹ The US, EU, and others committed to a thirty percent reduction in methane emissions by 2030.²⁴² China, a key global methane emitter, was notably absent from this pledge.²⁴³ Rather, it pledged to develop its own “national plan” to address emissions.²⁴⁴ Additionally, China was also notably absent from the roster of 190 countries and organizations committed to transitioning away from unabated coal power generation in the UK-led Global Coal to Clean Power Transition Statement.²⁴⁵ In 2020, China comprised fifty-three percent of coal production worldwide with coal primarily powering its textile industry.²⁴⁶ Other major coal financiers, the United States, India, and

237. *Id.*

238. *Id.*

239. *Id.*

240. *Id.*

241. Rives, *supra* note 215.

242. Press Release, The White House, Joint US-EU Press Release on the Global Methane Pledge (Sept. 18, 2021), <https://www.whitehouse.gov/briefing-room/statements-releases/2021/09/18/joint-us-eu-press-release-on-the-global-methane-pledge/> [<https://perma.cc/5U6Y-MV5J>].

243. *COP26: Cautious Welcome for Unexpected US-China Climate Agreement*, BBC NEWS (Nov. 11, 2021), <https://www.bbc.com/news/science-environment-59243434> [<https://perma.cc/A576-EJ4B>].

244. *Id.*

245. Bee et al., *supra* note 205.

246. Eamon Barrett, *China Burned Over Half the World’s Coal Last Year, Despite Xi Jinping’s Net-Zero Pledge*, FORTUNE (Mar. 29, 2021),

Australia also abstained from the commitment.²⁴⁷ Signatory countries pledged to phase out new coal-power generation and scale up investment in clean technologies in the next decade; it remains to be seen whether China will scale down its domestic coal emissions to meet the larger objectives of COP26, even if it is not a privy to the Global Coal to Clean Power Transition Statement.²⁴⁸

China has committed to stop financing overseas coal generation by the end of 2021.²⁴⁹ However, China remains in the midst of an energy crisis due to a coal shortage; the textile industry is one of the hardest hit sectors in this crisis.²⁵⁰ Australia supplied thirty-eight percent of China's coal in 2019.²⁵¹ However, China has unofficially banned Australian coal imports after political trade tensions peaked when Australia backed an international call for inquiring into Beijing's improper handling of the COVID-19 outbreak.²⁵² This coal scarcity has led to severe power outages across provinces since mid-August with "a shortage of coal

<https://fortune.com/2021/03/29/china-coal-energy-electricity-xi-jinping-2020-ember/> [<https://perma.cc/7K8A-U54Z>] ("China continues to burn more coal than any other developed nation China accounted for fifty-three percent of the world's coal-powered electricity in 2020—nine percentage points higher than its share in 2015, when China joined the Paris Agreement."); see also Wang et al., *supra* note 9, at 8 ("Coal products [are] still the dominant source of electricity consumed in China's [textile] industry.").

247. Brad Plumer & Lisa Friedman, *Over 40 Countries Pledge at U.N. Climate Summit to End Use of Coal Power*, N.Y. TIMES (Nov. 4, 2021), <https://www.nytimes.com/2021/11/04/climate/cop26-coal-climate.html> [<https://perma.cc/K37J-QSFT>].

248. Bee et al., *supra* note 205.

249. Lily Kuo & Michael Birnbaum, *China Declares Coal Peak, India Readies Pollution Lockdown Days After U.N. Climate Summit*, WASH. POST (Nov. 15, 2021), https://www.washingtonpost.com/world/asia_pacific/cop26-china-coal-summit/2021/11/15/28810538-45ef-11ec-beca-3cc7103bd814_story.html [<https://perma.cc/47XC-PCZ5>].

250. Noel King, *Why China Has to Ration Electricity and How that Could Affect Everyone*, NPR (Oct. 1, 2021), <https://www.npr.org/transcripts/1042209223> [<https://perma.cc/NBG9-7QEA>] ("Energy-intensive sectors, like textiles and plastics, face the strictest power rationing.").

251. Saheli Roy Choudhury, *China Needs More Coal to Avert a Power Crisis – But It's Not Likely to Turn to Australia for Supply*, CNBC (Oct. 25, 2021), <https://www.cnbc.com/2021/10/26/china-energy-crisis-beijing-not-likely-to-lift-coal-ban-on-australia.html> [<https://perma.cc/AE7J-TVGE>].

252. *Id.*

supplies, tougher government mandates to cut emissions and higher manufacturing demand as the global economy bounces back from pandemic lows.”²⁵³ China has expressed it will not lift its Australian import ban anytime soon.²⁵⁴ Analysts predict that China will begin ramping up its own coal production or curb its own emissions while importing coal from other countries like Indonesia and Russia.²⁵⁵

Despite China’s longstanding history of coal dependency and experts’ concerning predictions about this continued reliance, there are still indications that China will commit to lessening its emissions. China and the United States released a surprising joint statement at COP26, pledging to work together, as the largest global emitters of greenhouse gases, to curb emissions and transition to cleaner energy sources.²⁵⁶ China has the infrastructure to support a transition to renewables and currently stands as one of the world’s largest suppliers of renewable energy technologies.²⁵⁷ However, converting significant portions of its energy consumption to renewables will be a difficult and long transition.²⁵⁸

COP26’s focus on coal places political pressure on nations across the globe to move away from coal consumption. For China to meet the climate action standards it pledged to in COP26, it will need to undertake some form of action to minimize its coal emissions.²⁵⁹ China’s textile industry comprises a significant amount of

253. *Id.*

254. *Id.*

255. *Id.*

256. Press Release, U.S. Dep’t of State Office of the Spokesperson, U.S.-China Joint Glasgow Declaration on Enhancing Climate Action in the 2020s (Nov. 10, 2021), <https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/> [<https://perma.cc/8PRB-U5NF>].

257. Eamon Barrett, *China Watered Down the COP26 Pledge to Eliminate Coal. Days Later It Reported Record Coal Production*, *FORTUNE* (Nov. 15, 2021), <https://fortune.com/2021/11/15/china-cop26-coal-production-glasgow-climate-pact-energy-crisis/> [<https://perma.cc/M5SK-F6DP>].

258. *Id.*

259. Brett Matthews, *COP26 Pledges Present Fashion with Stark Choices*, *APPAREL INSIDER* (Nov. 12, 2021), <https://apparelinsider.com/cop26-pledges-present-fashion-with-stark-choices/> [<https://perma.cc/P5FC-SKPJ>].

the nation's coal emissions.²⁶⁰ If China were to transition the industry's energy use to more renewable sources, then it could significantly curb emissions. The country could use its current coal shortage crisis as an opportunity for reform with its textile industry leading the transition.

D. AIR POLLUTION: SUMMARY

Addressing the Chinese textile industry's air pollution issues necessitates reducing China's historical dependency on coal. This remains a difficult issue, but brands have power as financial contributors and energy users. They can impose and enforce sustainability policies on their suppliers. Nike and Adidas utilized this strategy when their suppliers in Cambodia announced new coal plant construction initiatives.²⁶¹ They threatened to stop contracting with them if these suppliers were to move forward with plans as it contradicted their own sustainability goals.²⁶² Therefore, in order for China and its textile stakeholders to meet the commitments of COP26 and the Fashion Charter for Climate Action, brands need to take radical action to mitigate China's reliance on coal.

IV. RECOMMENDATIONS: FACILITATING A SUSTAINABLE FUTURE FOR CHINA'S TEXTILE INDUSTRY

China's textile industry has created severe water and air pollution issues.²⁶³ Concerted efforts by governments, brands, NGOs, and manufacturers can address these issues. Parties must encourage transparency, incentivize more sustainable wastewater and textile processing, and transition national economies to greater reliance on cleaner renewable energy sources. The environmental impacts of China's textile industry remain a

260. *Id.*

261. Chelsea Ipsen, *What Fashion Should Expect Following COP26*, FASHION INDUS. BROAD. (Nov. 13, 2021), <https://fashionindustrybroadcast.com/amp/2021/11/13/what-fashion-should-expect-following-cop26/> [<https://perma.cc/LFN6-DU3C>].

262. *Id.*

263. Anis & Toprak, *supra* note 5.

complicated issue that no single effort can solve.²⁶⁴ Rather, it requires a multi-faceted solution.²⁶⁵ This Note recommends, after examination of the current environmental harms and accompanying national regulations, a three-prong plan for a more sustainable future for China's textile industry.

A. ENVIRONMENTAL TAX REFORM

China's new environmental tax policy should be amended to include carbon dioxide on the list of offending pollutants.²⁶⁶ This new tax system seeks to improve air and water quality from offending pollutants such as sulfur dioxide and sulfite.²⁶⁷ Policymakers designed the policy to have such breadth to even penalize offenses such as noise pollution.²⁶⁸ Therefore, as the world's heaviest emitter of carbon dioxide, China should reconcile the tax's purpose of protecting environmental and human health from harmful pollutants with carbon dioxide's deadly acceleration of climate change.

Organizations conducted studies to quantify the efficiency of this tax reform and found varied success; additional studies over time will reveal the extent of the tax's impact on reducing pollution.²⁶⁹ One study found that "[t]he environmental protection tax has a significant inhibitory effect on haze and can significantly

264. Forida Parvin, et al., *A Study on the Solutions of Environment Pollutions and Worker's Health Problems Caused by Textile Manufacturing Operations*, 28 *BIOMEDICAL J. SCI. & TECH. RSCH.* 21831, 21839 (July 7, 2020), <https://biomedres.us/pdfs/BJSTR.MS.ID.004692.pdf> [<https://perma.cc/K88A-FVFG>].

265. *Id.*

266. See Xia Li & Guangyao Deng, *Research on the Effect of an Environmental Protection Tax Policy on Haze Control in China – Empirical Analysis Based on Provincial Panel Data*, 14 *SUSTAINABILITY* 1, 10 (Dec. 12, 2021), <https://www.mdpi.com/2071-1050/14/1/41> [<https://perma.cc/T4NR-TPSS>].

267. *No Tax on CO2 Emissions in China's New Environmental Law*, *PHYS.ORG SCIENCE X NETWORK* (Dec. 26, 2016), <https://phys.org/news/2016-12-tax-co2-emissions-china-environment.html> [<https://perma.cc/Y3XS-8NCX>].

268. *Id.*

269. Xiurong Hu et al., *The Impact of Environmental Protection Tax on Sectoral and Spatial Distribution of Air Pollution Emissions in China*, 14 *ENV'T RSCH. LETTERS* 5 (May 13, 2019), <https://iopscience.iop.org/article/10.1088/1748-9326/ab1965/pdf> [<https://perma.cc/U8VB-FXQT>].

reduce the emission of haze . . . Moreover, a pollutant discharge fee system can also guide enterprises to reduce environmental pollution.”²⁷⁰ Another recent study concluded that the tax policy generally reduced emissions of short-lived air pollutants (e.g. SO₂, NO_x, TSP, PM₁₀, PM_{2.5}, CO, VOCs, OC, NH₃ and BC) but had its limits:

[T]he significant effects only happen in regions with large economic scale (i.e. Guangdong, Shandong and Zhejiang provinces) and in sectors with high emission intensity (i.e. the electric power and nonmetal manufacturing sectors). However, at the national level, the overall effect of the current policy on air pollution mitigation is relatively small, less than 2% compared to a business-as-usual scenario. Large emission reduction potentials exist if the tax increases. Therefore, a more ambitious tax policy is urgently needed in order to achieve China’s air pollution mitigation target of 2020.²⁷¹

These studies support the recommendation that to fully execute the goal of the tax policy, policymakers must strengthen its language by widening the scope of offending pollutants to include carbon dioxide.²⁷²

Additional studies are also required to evaluate the regional and national impacts of the policy over time.²⁷³ Further, even if lawmakers amend the tax system to include carbon dioxide in the policy, NGOs and environmental research groups should still focus on tracking the levels of enforcement and supervision. These accompanying studies could help the People’s Congress determine the necessity of implementing further remedial measures to the current policy such as increasing the level of enforcement and rate of taxation over time.²⁷⁴

270. Li & Deng, *supra* note 266.

271. Hu et al., *supra* note 269.

272. *Id.*

273. *Id.* (“Although the new tax law is perceived as an aggressive policy that tends to establish a taxation system for promoting air pollution control, evaluations of its effectiveness are insufficient and urgently needed for China.”).

274. *Id.*

*B. BRANDS EXERT FINANCIAL LEVERAGE TO DEMAND
TRANSPARENCY AND BETTER PRACTICES*

Transparency and employment of more environmentally friendly textile processing practices should be the epicenter of brands' sustainability initiatives. This Note examines the potential sustainable practices a textile manufacturer can employ to produce more environmentally friendly products. Brands and manufacturers should strive to implement initiatives such as constructing wastewater treatment facilities, employing innovative dyeing practices with more natural dyes and reduced water consumption, and increasing transparency of factories' environmental offenses with participation in public databases like IPE's Blue Map app.

China can strengthen the scope of its environmental tax law to pressure factories to implement these practices. However, the national government has a long history of nonenforcement that may undermine the weight of this intended pressure.²⁷⁵ On the other hand, brands, especially larger wealthier brands, have the resources to financially leverage and sway the choices of their supply chain's environmental activities.²⁷⁶

Consumer demand for sustainability incentivizes brands to exert pressure on suppliers for environmental accountability, despite any financial costs that may accrue in changing their supplier's sustainability practices.²⁷⁷ Consumer interest in

275. See Cicensia, *supra* note 69 (“[I]t is one of the first policies aimed directly at tackling the lack of enforcement at the local level China already has a number of laws and regulations aimed at protecting the environment, but lack of enforcement has historically impeded their effectiveness.”).

276. See Anne-Titia Bové & Steven Swartz, *Starting at the Source: Sustainability in Supply Chains*, MCKINSEY & CO.: MCKINSEY SUSTAINABILITY (Nov. 11, 2016), <https://www.mckinsey.com/business-functions/sustainability/our-insights/starting-at-the-source-sustainability-in-supply-chains> [<https://perma.cc/NB8H-QPK6>] (“Consumer businesses are responsible for ensuring that their supply chains are managed well. These companies are also in a strong position to influence their suppliers.”).

277. *Id.*; see Troy, *How Has Consumer Demand for Sustainable Clothing Impacted Companies*, ICSTD (Jan. 28, 2022), <https://www.ictsd.org/how-has-consumer-demand-for-sustainable-clothing-impacted-companies/> (“63% of respondents said they were

sustainable textiles has grown overwhelmingly in the past decade, with an increase in interest over the COVID-19 pandemic lockdown period.²⁷⁸ Consumers now demand that the fashion companies they support deliver sustainable products.²⁷⁹ Many brands including luxury designers have risen to address this problem, as evidenced by the conglomeration of corporations pledging more sustainable practices in the 2021 Fashion Industry Charter for Climate Action.²⁸⁰

When brands try to implement more sustainable supply chain practices, consumers may distrust the brand's claims of sustainability.²⁸¹ Consumers may interpret these acts as misleading "greenwashing" marketing and want further confirmation of sustainable practices.²⁸² Additionally, the brand itself may not be certain as to whether its overseas textile factories

willing to pay more for products that are eco-friendly. More than 65% of consumers would prefer to pay more for eco-friendly products").

278. Achim Berg et al., *Time for Change: How to Use the Crisis to Make Fashion Sourcing More Agile and Sustainable*, MCKINSEY & CO.: APPAREL, FASHION & LUXURY GRP. (May 2020),

<https://www.mckinsey.com/~media/mckinsey/industries/retail/our%20insights/time%20for%20change%20how%20to%20use%20the%20crisis%20to%20make%20fashion%20sourcing%20more%20agile%20and%20sustainable/time-for-change-how-to-use-the-crisis-to-make-fashion-sourcing-more-agile-and-sustainable.pdf>

[<https://perma.cc/96NQ-BJBC>]; see also Danielle Wightman-Stone, *Ventile Reports Sales Growth Due to Increased Demand for Sustainable Fabrics*, FASHION UNITED (Jan. 12, 2022), <https://fashionunited.uk/news/business/ventile-reports-sales-growth-due-to-increased-demand-for-sustainable-fabrics/2022011260547> [<https://perma.cc/VA29-N9XK>].

279. *Id.*

280. Cernansky, *supra* note 110; see *Participants in the Fashion Industry Charter for Climate Action*, U.N. CLIMATE CHANGE, <https://unfccc.int/climate-action/sectoral-engagement/global-climate-action-in-fashion/fashion-industry-charter-for-climate-action/participants-in-the-fashion-industry-charter-for-climate-action#eq-1> [<https://perma.cc/FSL8-Z2RY>].

281. See Amy Nguyen, *Open-Source Data Could Fix Fashion's Supply Chains. Here's How*, FORBES (May 13, 2021), <https://www.forbes.com/sites/amynghuyen/2021/05/13/open-source-data-could-fix-fashion-supply-chains-heres-how/?sh=54982934301d>.

282. *Id.*

are actually in compliance with their agreed upon sustainability practices.²⁸³

Public disclosure of supply chain practices can address these concerns with open-source databases, providing information on datapoints such as the factory's wastewater treatment practices, coal usage emissions, and water consumption and pollutant levels.²⁸⁴ IPE's Blue Map program institutes this kind of programming for factories in China.²⁸⁵ However, even Ma Jun, creator of IPE's index, concedes that IPE alone cannot monitor all textile factories in China and would need much more governmental and outside resources to increase the database's reach.²⁸⁶ IPE's index does not stand as the sole public database performing this service in China; many other international databases such as the Open Apparel Registry, SourceMap, and the Transparency Pledge also track supply chain activities and encourage brands to publish their manufacturing practices.²⁸⁷ Brands across the globe should invest in supply chain data sharing to ensure their supply chain remains in compliance with these previously recommended environmentally friendly practices and further instill consumer trust in their sustainability claims.²⁸⁸

Furthermore, guidance found in the US Federal Trade Commission's ("FTC") Green Guides and UN Fashion Industry Charter for Climate Action should be amended to encourage industry-wide compliance with sharing textile factories' environmental practices. The Federal Trade Commission lays out

283. *See id.*; *see also* Florian Heubrandner, *Will Technology be the Game-Changer for Rising Transparency in the Fashion Supply Chain?*, GREENBIZ (Jan. 31, 2020) <https://www.greenbiz.com/article/will-technology-be-game-changer-rising-transparency-fashion-supply-chain-sponsored> [<https://perma.cc/5MT5-J2DG>]. (“[A] transparent production process is crucial for making sure the company’s sustainability targets are met.”).

284. *See* Nguyen, *supra* note 281; *see also* *Green Supply Chain CITI Evaluation Guidelines 8.0*, IPE, <http://www.ipe.org.cn/GreenSupplyChain/userguide/CITI评价指南.pdf> [<https://perma.cc/AZB3-6ND2>].

285. Ancheri, *supra* note 31.

286. Ford, *supra* note 56.

287. Nguyen, *supra* note 281.

288. *Id.*

guiding principles surrounding “green” marketing claims.²⁸⁹ For example, FTC Guides warn against broad claims of eco-friendliness, which may be difficult to substantiate with precision.²⁹⁰ This Note recommends amending the FTC Green Guides to include sustainable textile processing practices, i.e., recommending natural dyes and wastewater treatment facilities, and public databases within its guidance for sustainability. The final 2012 Guides stated that it would not address sustainable claims as the “[C]ommission lacks sufficient evidence on which to base general guidance.”²⁹¹ Claims of sustainable fabrics and supply chains have since exploded in the last decade.²⁹² Furthermore, the FTC announced it intends to revisit its Green Guides in 2022 to review and expand the “types of environmental claims FTC may find deceptive under Section 5 of the FTC Act.”²⁹³ The FTC guidance does not need to enumerate every practice within sustainable textile production; however, it would be beneficial to provide a

289. *Environmentally Friendly Products: FTC’s Green Guides*, FED. TRADE COMM’N, <https://www.ftc.gov/news-events/media-resources/truth-advertising/green-guides> [<https://perma.cc/Z9LS-7H4V>] (last visited Apr. 23, 2022).

290. *Environmental Claims: Summary of the Green Guides*, FED. TRADE COMM’N (Oct. 2012), <https://www.ftc.gov/tips-advice/business-center/guidance/environmental-claims-summary-green-guides> [<https://perma.cc/5JAD-9769>].

291. Guide for the Use of Environmental Marketing Claims; FED. TRADE COMM’N, 16 C.F.R. Part 260 (Oct. 11, 2012), https://www.ftc.gov/sites/default/files/documents/federal_register_notices/guides-use-environmental-marketing-claims-green-guides/greenguidesfrn.pdf [<https://perma.cc/8KEM-E7HG>].

292. Kaley Roshitsh, *Rise in ‘Sustainability Claims’ Sparks Letter for Reform to FTC*, WWD (Apr. 19, 2021), <https://wwd.com/sustainability/business/greenwashing-consumers-reform-green-guides-fashion-ftc-1234805470/> [<https://perma.cc/YQY8-P3PA>].

293. *FTC Intends to Initiate Review of Green Guides in 2022*, JD SUPRA (July 7, 2021), <https://www.jdsupra.com/legalnews/ftc-intends-to-initiate-review-of-green-2192324/> [<https://perma.cc/AK93-4GHH>]; see Brook Detterman et al., *Environmental Marketing Claims: Regulatory and Litigation Outlook*, NAT’L L. REV. (Aug. 12, 2021), <https://www.natlawreview.com/article/environmental-marketing-claims-regulatory-and-litigation-outlook> [<https://perma.cc/2Q89-3LH9>] (“While the FTC has not yet indicated any specific focus areas for the revisions, the agency may revisit some of the categories of claims it considered but declined to cover in the 2012 revision, such as “sustainable,” “organic,” or “natural.” The FTC may also revisit the level of substantiation that should be required for environmental claims and the role of life-cycle assessment.”).

non-exhaustive list of examples of sustainable textile processing practices. This new guidance should describe proper wastewater treatment facilities, non-toxic dyeing practices, and caps on coal energy consumption as factors to evaluate whether a supply chain truly performs sustainably. While it is unlikely that the FTC would produce such specialized guidance, the FTC could alternatively release an FTC Policy Statement or official blog post to guide American brands on how to market their supply chain's practices and what sustainable practices brands should employ to accurately represent their supply chains as sustainable.²⁹⁴

Secondly, the UN Fashion Industry Charter for Climate Action's "Playbook for Climate Action Report" should be amended to include this sustainability marketing guidance, as well as instructions on *how* brands can implement these environmentally friendly practices.²⁹⁵ As an international diplomatic agreement binding hundreds of influential signatories in the fashion and textile industry to climate action, incorporating these instructions in Working Groups' reports facilitates industry-wide discussion.²⁹⁶ This discussion supports the aim of elevating these sustainable practices to become the mainstream industry-wide standard of textile processing.²⁹⁷

C. REDUCE COAL DEPENDENCY IN COMPLIANCE WITH FASHION CHARTER AND COP26

China should institute plans to implement a coal usage and carbon cap in its 14th Five-Year-Plan to meet its ambitious international treaty commitments for decarbonization. Additionally, it should continue investing in renewables to phase out its heavy coal dependency. The carbon and coal usage cap policy could help shift China's energy consumption toward

294. See FED. TRADE COMM'N, *supra* note 289 (listing past FTC blog posts, public statements, and advisory opinions).

295. See (*Ch 4*), U.N. CLIMATE CHANGE, *supra* note 156.

296. *Id.*

297. *Id.*

replacing a greater percent of its coal consumption with renewable energy.

China routinely produces an updated Five-Year-Plan document detailing the nation's objectives for economic, social, and environmental development as endorsed by the National People's Congress.²⁹⁸ On January 24, 2022, China published its 14th Five-Year Plan (2021-2025); China had just committed to ambitious goals set by its agreement to COP26 and the President's commitment to achieving carbon neutrality by 2060.²⁹⁹

The Plan countered many expectations after COP26 that the new Plan would intensify past national environmental commitments: "[W]hile modestly increasing its non-fossil fuel energy consumption goals from 15% in its 13th Five-Year-Plan to 20% over the next five years, carbon intensity reduction targets remained flat at 18% and the target to reduce energy use per unit of GDP actually dropped from 15% to 13.5%."³⁰⁰ Furthermore, it failed to include a cap on absolute carbon emissions, a feature advocated for by environmentalists.³⁰¹ The 14th Five-Year-Plan generally mentioned but did not affirmatively address whether it intended to retain the 13th Five-Year-Plan's 1,100 GW cap on coal power capacity.³⁰² The Plan indicated general decarbonization goals, stating that China will "implement a system based primarily on carbon-intensity controls, with the carbon cap as a supplement."³⁰³

298. Fan Dai, *China's 14th Five-Year-Plan: A Missed Opportunity to Chart a Path to Carbon Neutrality?*, BERKELEY L. CAL.-CHINA CLIMATE INST. (Mar. 10, 2021), <https://ccci.berkeley.edu/news/2021/03/china-s-14th-five-year-plan-missed-opportunity-chart-path-carbon-neutrality> [<https://perma.cc/V322-4KA8>].

299. *Id.*

300. *Id.*

301. *Id.*

302. Hongqiao Liu, *The Carbon Brief Interview: Prof Wang Yi and Prof Wang Zhongying*, CARBON BRIEF (Dec. 10, 2021), <https://www.carbonbrief.org/the-carbon-brief-interview-prof-wang-yi-and-prof-wang-zhongying> [<https://perma.cc/7MXG-2YCY>].

303. Hongqiao Liu et al., *Q&A: What Does China's 14th 'Five Year Plan' Mean for Climate Change?*, CARBON BRIEF (Dec. 3, 2021), <https://www.carbonbrief.org/qa-what-does-chinas-14th-five-year-plan-mean-for-climate-change> [<https://perma.cc/Y7GY-Y9Z5>].

China should release a specific plan to institute a carbon cap effective during the 14th Five-Year-Plan period. New studies conducted by the NRDC and North China Electric Power University state that by “capping installed coal power capacity at 1,100 GW over the coming 14th Five-Year-Plan period, China can both guarantee its energy security and remain on track to accomplish its dual ‘30-60’ carbon emissions targets.”³⁰⁴ A Standing Committee member recently submitted a proposal to establish a carbon cap in 2022, which currently remains under consideration by the National People’s Congress.³⁰⁵ The National People’s Congress should accept this proposal immediately to better reform China’s energy consumption.

China pledged to expand its share of renewable energy usage in the nation’s energy consumption.³⁰⁶ China currently stands as a well-established leader in renewable energy as the largest producer of solar and wind energy, largest domestic investor in renewable energy, largest wind turbine manufacturer, and owner of five out of six largest solar-module manufacturing corporations.³⁰⁷ The Chinese government overtly prioritizes renewable energy investment to address its severe national water and air pollution crises.³⁰⁸

However, despite being a leader in renewable energy, China continues to possess the third-largest coal reserves across the globe, a reliance on imported coal which has only increased over time.³⁰⁹ Its coal dependency must change to meet the ambitious goals set by COP26 signatories, Chinese stakeholders in the UN

304. Alvin Lin, *China Can Meet Energy and Climate Goals Capping Coal Power*, NRDC (Aug. 4, 2021), <https://www.nrdc.org/experts/alvin-lin/china-can-meet-energy-and-climate-goals-capping-coal-power> [<https://perma.cc/L8VE-FPW2>].

305. Dai, *supra* note 298.

306. *Id.*

307. Dominic Chiu, *The East is Green: China’s Global Leadership in Renewable Energy*, CTR. FOR STRATEGIC & INT’L STUD. (2017), <https://www.csis.org/east-green-chinas-global-leadership-renewable-energy> [<https://perma.cc/4ZQ6-UVD7>].

308. *Id.*

309. China Power Project, *How is China’s Energy Footprint Changing?*, CTR. FOR STRATEGIC & INT’L STUD. (Feb. 7, 2022), <https://chinapower.csis.org/energy-footprint/> [<https://perma.cc/JF94-3YTW>].

Fashion Charter for Climate Action, and China's own national ambitions disclosed in its 14th Five-Year-Plan.³¹⁰ Establishing carbon emissions and a coal usage cap in its Five-Year-Plan could incentivize further development and increased energy reliance on renewable energy sources over coal.³¹¹

V. CONCLUSION

This Note examined the detrimental impacts of China's textile industry on air and water pollution to showcase the environmental costs of the textile industry in China. The decision to pursue comprehensive remedial action requires stakeholders answer the remaining query. Are nations, brands, NGOs, and consumers willing to bear these heavy environmental costs and allow local communities to pay for it with the toxic effects of air and water pollution for the sake of cheaper business?

If the fashion industry truly seeks to make sustainability a priority within the textile industry, the industry must strengthen China's environmental tax policies, increase transparency of supply chain's environmental practices, and reduce China's dependence on coal. It is also critical to acknowledge that China's textile industry does not exist within a vacuum. The textile industry is uniquely globalized with interconnected fashion industry stakeholders across the globe.³¹² Therefore, even if China

310. See Gao Baiyu, *Does Coal Still Have a Role in China's Decarbonizing Power Market?*, CHINA DIALOGUE (Jan. 8, 2021), <https://chinadialogue.net/en/energy/does-coal-still-have-a-role-in-chinas-decarbonising-power-market/> [<https://perma.cc/5B28-JW4V>] ("The country's energy experts have more or less reached the consensus that a fundamental transformation of the coal sector is inevitable.").

311. *Id.*

312. *Threading the Needle: Weaving the Sustainable Development Goals into the Textile, Retail, and Apparel Industry*, KPMG (July 2018), <https://www.comunicarseweb.com/sites/default/files/kpmg-threading-needle-report.pdf> [<https://perma.cc/7F7W-C9VZ>] ("Sustainable Development Goals (SDGs) will not be achieved without all global and local actors—governments, the private sector, and civil society—playing their part Representing approximately \$2.5 trillion to \$3 trillion, the apparel industry has the scale, reach, and technical expertise to deliver on target SDGs within the industry's sphere of influence in its interconnected global and local value chains.").

began enforcing stricter environmental standards and transitioned to cleaner energy sources, as proposed here, some brands may simply move factories to other countries such as India, Indonesia, and Bangladesh with less stringent standards to save costs.³¹³ Therefore, although these proposed measures are essential to addressing the Chinese textile industry's current impact on air and water pollution, in practice, these actions must be accompanied by unified industry and societal pressures to reject unsustainable practices.³¹⁴ International agreements such as COP26 and the UN Fashion Industry Charter for Climate Action encourage sustainable actions from *all* stakeholders to truly address the comprehensive environmental cost of the textile industry in China.

313. See CHINA WATER RISK, *supra* note 18 (“As wages rise in China, however, this is a trend that is already underway, with some of the dirtiest factories moving to Bangladesh, Pakistan and Vietnam, where regulations are even lighter and costs less.”).

314. *Id.*