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Shopping for Sustainability at the Canton Fair

The Political Economy of Transnational Retail Governance in China

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TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

LIST OF FIGURES

LIST OF TABLES

TEXT BOXES

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ACRONYMNS

BC	British Columbia
BMP	Best Management Practice
BPA	Bisphenol A
BSCI	Business Social Compliance Initiative
BSR	Business for Social Responsibility
CPC	Communist Party of China
CSR	Corporate Social Responsibility
ENGO	Environmental Non-Governmental Organization
FSC	Forest Stewardship Council
FSSC	Food Safety System Certification
GCA	Green Coalition Alliance
GDP	Gross Domestic Product
GMG	Global Market Group
GMPC	Good Management Practice Company
GRI	Global Reporting Initiative
IMF	International Monetary Fund
IPE	Institute of Policy and Environmental Affairs
IPR	Intellectual Property Rights
ISO	International Organization for Standardization
ICT	Information and Communications Technology
JUCCCE	Joint US-China Collaboration on Clean Energy
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
NGO	Non-Governmental Organization
OHSAS	Occupational Health and Safety Assessment Scheme
PEFC	Programme for the Endorsement of Forest Certification
PRC	People's Republic of China
QMI	Quality Management Institute
RMB	Renminbi
SGS	Société Generale de Surveillance
SME	Small and Medium-Sized Enterprise
UL	Underwriters Laboratories
USITC	United States International Trade Commission
WBCSD	World Business Council for Sustainable Development
WTO	World Trade Organization

1 INTRODUCTION

In recent years, big brand companies have competed to adopt far-reaching sustainability goals. They are now racing to drive these commitments into their core operations as well as through their global supply chains. This report analyzes the issues and impact of this accelerating trend on the environmental and social practices of consumer goods manufacturers in China. It offers recommendations for buyers to improve vendor practices beyond codes of practice. And it identifies information gaps for future research.

Project goals

The overall goals of the project are three-fold:

- To understand the extent to which brand companies are "walking the talk" in terms of implementing global supply chain sustainability goals. What benchmarks are they setting and how are they guiding and ensuring supplier compliance?

- To determine how manufacturers in China are balancing rising brand company sustainability demands with contractual requirements for low-priced production. Is labour paying the price for environmental improvements?

- To evaluate how local institutional and infrastructure conditions (e.g. state regulations, energy supply constraints, transport logistics, etc.) are shaping manufacturer sustainability response. What are the critical barriers to corporate sustainability improvements and labour compliance?

This study draws on an extensive literature review of corporate social responsibility (CSR) in China, as well as a field visit to Guangdong province and the Canton Fair in April 2012 that included over 50 interviews (See Appendix A).

This study is part of an overall global supply chain project at the Liu Institute investigating the global environmental politics of transnational retail governance.

The report is divided into six sections.

Study Overview

The objectives of the study include:

- Explore the role and influence of big brand retail sustainable supply chain initiatives on Chinese manufacturers.
- Document challenges facing suppliers in China.
- Offer recommendations for improving vendor practices through retail-driven supply chain sustainability initiatives.
- Identify opportunities for future research.

Approach

Dr. Jane Lister and Dr. Genevieve LeBaron – both Research Fellows at the Liu Institute for Global Issues at UBC – conducted the field research in Guangdong province during week 2 of the Canton Fair in April 2012.

Dr. Peter Dauvergne, Director of the Liu Institute provided funding and project oversight.

The field visit focused within the Pearl River Delta area of Guangdong province (often referred to as the 'world's factory'). We gathered data through interviews with consumer goods vendors and service providers during week 2 at the Canton Fair in Guangzhou, April 23-27, 2012.

We also interviewed BC government trade officials in Guangzhou, and visited a factory (Chun Wo Ho Co Ltd) in neighbouring Shenzhen (the fastest growing and largest migrant city in China).

Questions at the Fair:

Overall, we were curious to find out from the vendors:

- Whether they incorporated any environmental and social considerations into their product design and production processes.
- Why they included these. Did brand retail customers play a role?
- Whether the criteria had changed over the past few years, and if so how and why.
- What they anticipated would be the future sustainability requirements.
- Did they do anything to ensure their sub-contractors were also compliant.

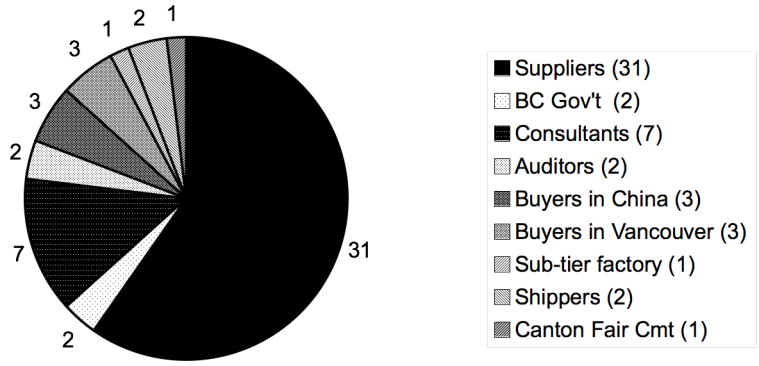
We took an informal rather than a structured survey approach that included a range of questions (see Appendix A).

Interview Sample

We conducted a total of 52 interviews (Figure 1-1). 31 of these were with suppliers at the Fair. The other 21 were with shipping companies, auditors, consultants, buyers (both in Vancouver

and at the Fair), the BC provincial government trade office in Guangzhou, the Canton Fair organizing committee, and a materials sub-contractor factory in Shenzhen.

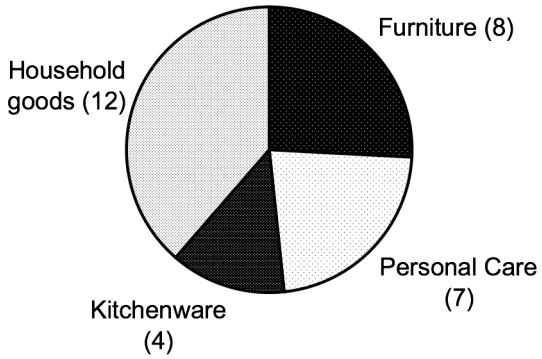
Figure 1-1: China Research Interviews, April 2012



Supplier Category Breakdown

Our focus at the Fair was on 4 consumer-goods categories. These included: kitchenware (plastic moulds, plates, pans, cups, etc.), personal care (diapers, toilet paper, tooth brushes), furniture (wooden frames, boxes, indoor and outdoor chairs, tables, decking), and household goods (toys, pet products, cleaning products).

Figure 1-2: Canton Fair Vendor Interview Sample (by industry category)



2 THE CANTON FAIR

Background

The China Import and Export Fair ("The Canton Fair") is China's oldest trade fair and the biggest in the world. Established in 1957, it has served as a major portal and vehicle for the growth of China's commerce with foreign buyers and the opening of China to the West.[1]

The Fair grounds stretch over an area of 1.1 million m2 (equivalent to approximately 160 soccer fields). It takes place twice a year (spring and fall) over a three-week period. Week 1 is electronics and building material; week 2 is consumer goods; and week 3 is apparel and food. Around 25,000 vendors attend each of the Fall and Spring sessions.

The Canton Fair is located in Guangzhou, the capital of Guangdong province (formerly Canton as named by Portuguese traders). The first stop up the Pearl River from Hong Kong, Guangzhou has been a hub for trade with China for over 500 years and was at the centre of the British opium trade in the nineteenth century. With rapid industrialization, the city has become a major global manufacturing centre with the highest concentration of factories in the world and a migrant worker population of over 30 million. This is in addition to a resident population (with legal permits) of more than 12 million.

The city continues to grow. In 2005, the local government committed $32 billion to upgrading the city's infrastructure to support the expanding population and commerce. Guangzhou is in Guangdong province, which accounts for around 25% of China's total exports. 75% of these exports go to European and North American markets. The Canton Fair is a major facilitator of China's trade activity.

The China Foreign Trade Centre (an institute with the Ministry of Commerce of PRC) conducts the Canton Fair in cooperation with the People's Government of Guangdong Province and the Guangzhou municipality. The Fair has served as a vehicle for the Communist party to control investment and trade into the country and to convey to the Party's economic policies and propaganda messages.

At the first fair in 1957, 1,200 buyers attended from 19 countries. Now, 55 years later, over 200,000 buyers from over 200 countries and regions attend. Currently, just over half of the buyers (54%) are from Asia. 35% are new buyers and 65% are returning with 20% of these buyers attending the Fair more than 15 times.

Big brand retail companies attend the Fair. At the April 2012 session, 83 of the world's top retail companies were in attendance. This includes Walmart, Carrefour, Tesco and Metro (4 of the top 10 global retailers). The majority are smaller buyers though with much smaller orders.

[1] The Fair is primarily about export development but recently Fair organizers have added an International Pavilion to encourage import trade activity.

Unlike neighbouring Taiwan, South Korea or Japan that have had consolidation and the emergence of large manufacturing companies, China remains very fragmented with over 42 million small to medium sized suppliers. Many attend the Fair because they are unable to afford international marketing to attract a foreign buyer and ideally in the best of all worlds, a coveted high volume brand buyer. 19% of the vendors at the Fair are larger, more well established branded Chinese companies. The average order they line-up at the Fair is just under $9million. This is almost 6 times bigger than the transactions that take place with non-branded vendors. The smaller non-branded vendors are less differentiated and therefore attain lower prices and profit margins.

A Window into China's Political Economy

Creating the World's Factory

Although there are now specialized trade shows in China, as well as large competing fairs in Beijing and Shanghai, the Canton Fair is the largest and continues to play a key role in the expansion and development of the Chinese economy. What goes on at the Fair continues to provide valuable signals on China's policies, positioning, and rapidly shifting role in the global economy.

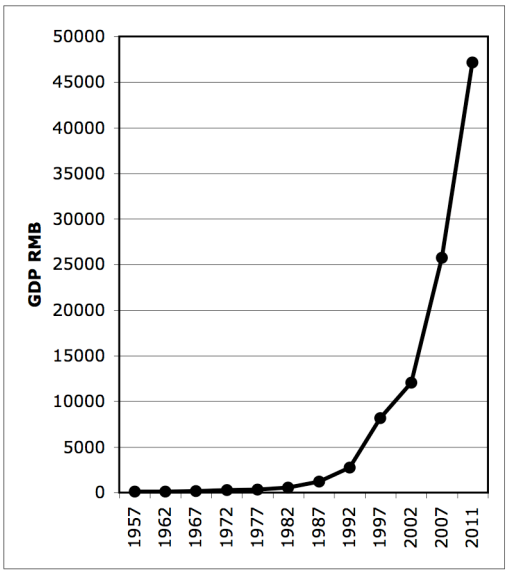
In the early 1970s, following US President Nixon's visit in 1972, the Fair opened for the first time to the United States. Academic Daniel Tretiak observed at the time (in the *China Quarterly* journal*)* that the Canton Fair offered an "interesting glimpse into the day-to-day workings of Chinese foreign trade process and trends in Chinese foreign policy generally" and served as "an indicator of how China's political relations are faring with the rest of the world."[2] Around the same time, Brunner and Taoka also wrote a reflective piece on the Fair, astutely forecasting the rise in Chinese business and exports: "we might expect an increase in imports of labor intensive products such as handicrafts, textiles, light industrial goods, and other manufactured products…the Chinese are becoming more flexible in their negotiations and are sincerely interested in expanding trade with the United States…American businessmen should find increasing business opportunities with the People's Republic of China."[3]

Activity at the Fair has mirrored China's rapid growth (Figures 2-1 and 2-2). In 1999, China's exports were just 1/3 as compared to U.S export values. As of 2009, it is the largest exporting nation in the world accounting for 10% of total global exports by value. In its first years, the Fair generated around $250 million annually. In 2011, export deals totaled just under $75 billion. The 25,000 vendors at each session of the Fair are small and medium sized privately-owned

[2] D. Tretiak, "The Canton Fair: An Academic Perspective," *The China Quarterly* 56, 1973, p.746.
[3] J. Brunner & G. Taoka, "Marketing and Negotiation in the People's Republic of China: Perceptions of American Businessmen who Attended the 1975 Canton Fair*," Journal of International Business Studies*, 8(2), 1977, p. 77.

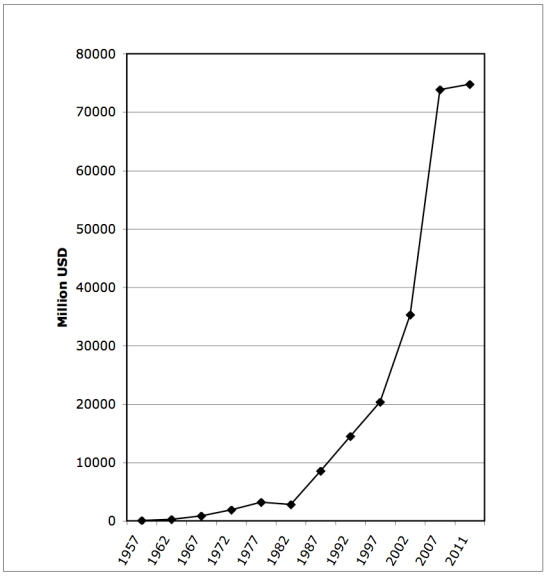
enterprises (SMEs). China's SMEs account for 70% of the country's exports.[4] Paralleling the Chinese economy, the rate of business growth at the Fair has slowed since the global financial crisis in 2008.

Figure 2-1: Rise in China GDP



Source: International Monetary Fund

Figure 2-2: Business Turnover at the Canton Fair



Source: Canton Import & Export Fair

Responding to Shifting Global Demand

In the wake of the 2008 global financial crisis, demand and attendance from European and North American buyers has dropped off. Compared with 2011, transactions with US buyers were down 8% and down 5.6% with the EU. "We are facing declining exports due to weak demand from buyers from traditional markets," Liu Jianjun, a spokesman for the Canton Fair explained in a press release posted on the official Canton Fair website. The EU is China's largest trading partner and the U.S. is its second. Within Guangdong province, a recent survey by local trade officials of 302 companies revealed that 42.5% had not lined up sufficient orders in 2012 so far.

Although still much smaller in terms of total demand, buyers from emerging economies such as India, Brazil, Russia, the Middle East, as well as Southeast Asia are gradually rising to fill this gap (Table 2-1). Transactions with BRICs were up 4% in trade volume. Trade volume with Africa alone was up 13.5% in 2011 versus flat growth rates in traditional developed markets.

[4] An SME in China is defined by less than 2,000 employees, revenues under 300 million RMB, and total assets less than 400 million RMB.

Table 2-1: Buyer Attendance at the Canton Fair, April 2012

	Buyer Attendance	Change (2010->2011)
1. Asia	112,993 (54%)	-0.3%
2. Europe	38, 125 (18%)	-11%
3. U.S.	34,232 (16%)	+9%
4. Africa	16,896 (8%)	+13%
5. Oceania	7,398 (3.5%)	+11%
Total	209,644 (100%)	

Source: China Import & Export Fair

The rise in emerging economy buyers at the Fair mirrors the overall shifts in China's light industrial products sector. Over the past year, exports to Africa, Oceania, Asia, and Latin America increased 26%, 29%, 30%, and 36% respectively.

Activity at the Fair demonstrates the shifting global demand. Companies like Xiamen Nature Caring Products Ltd and Zhejiang Huaxing Group explained to us that over the past two years they have started selling their personal care products and diapers to Africa and Brazil. Guangzhou Euro Asia Aerosol and Household products Manufacturing Co Ltd. also noted that as of last year they have new buyers for their cleaning products from Cambodia and Beirut. Several others noted growing sales to India as well as places like Dubai and to domestic Chinese buyers.

Communicating National Priorities

In the 1970s, the Chinese government's economic focus was on increasing exports quickly so as to offset the increasing level of imports (equipment, technology, Boeing jets, food-grains, telecommunications equipment etc.) Now, the government's focus is on "stabilizing exports; opening up the domestic market; promoting public awareness of high quality Chinese export brands in the domestic market; expanding domestic sales channels; spurring domestic consumption; and 'going global' by expanding import". As the IMF reports, these priorities are expected to have "significant effects on the global supply chain, particularly as China's imports rise and its production becomes more domestically oriented."[5]

These priorities were evident in the activity at the Fair. For example, there is now an International Pavilion for foreign manufacturers to sell their products to China. And organizers also set up an American Pavilion and held a US-Sino trade development forum for the first time in the Fall 2011 to encourage American companies particularly in high tech, manufacturing, cultural and educational industries to do business with China.

[5] International Monetary Fund, *People's Republic of China: 2011 Spillover Report,* Country Report 11/193, Washington, DC, July 2011, p.11.

Sustainability at the Fair

On the shuttle bus to the fair on the first day, we sat next to an older German buyer who we learned had been attending the Fair for 27 years. He was curious to know what had brought us to the Fair. When we explained we wanted to ask vendors about their sustainability commitments the entire bus erupted in laughter. “Oye, you won’t find that,” the Australians in the seats at the back of the bus piped up. The German explained that the business environment in China is very difficult to control. “I am prohibited from going to see parts of companies even though they are supplying to me and I am a major buyer,” he explained. He added that we were not likely to find a high level of sustainability knowledge. For example, the German government now requires “green dot” eco-certification with forms for suppliers to sign off to indicate they have read and understood the requirements. When he tried to go through the forms and explain waste reduction etc. to his Chinese suppliers they had “no clue and just simply signed.”

At the Fair, among the 24,644 exhibitors, we began by targeting those that had any sort of evidence of green marketing awareness and promotion either in the name of the company or with posters at the booth advertising compliance audits, certifications, or using language such as “eco-friendly,” “green,” “natural,” “no pollution,” “low carbon,” etc. We then paired these interviews with vendors with similar products but with no sustainability marketing to try to understand the differences.

Extrapolating our observations and findings from the Fair to questions regarding sustainability in China and the impact of global brand buyers, our investigation highlighted several overall insights:

- *Low Sustainability Profile*

  There is growing sustainability awareness among vendors but it is still far from an important competitive issue. Less than 5% of vendors displayed any sort of green marketing. When we asked the vendors without sustainability marketing questions about sustainability, they either had little knowledge or stated clearly that it was not an important issue for their customers. There were wood furniture companies unaware of FSC certification and shipping companies that were not aware of or tracking their carbon.

- *Limited Awareness*

  Brand buyers are increasing the sustainability awareness of their Chinese suppliers but the level of supplier knowledge is uneven. Of those vendors with green marketing, almost without exception, they all had a brand company customer in a traditional developed market. These vendors had posters stating they were SGS audited; had certificates like ISO 9000, ISO 14000, and BSCI; and had passed compliance audits for a displayed list of brand customers like Disney, Walmart, Safeway, Kmart, PetSmart, Carrefour, etc. A few of the vendors were informed about their company’s sustainability goals and commitments; how they are continually improving; and indicators they are

tracking and reporting, etc. One vendor, for example, explained in detail how Walmart required them to reduce their product toxicity by using food-grade ink, and by shifting away from using solvents in their plastic products. Another talked about the water treatment protocol their brand buyer wanted them to implement so that the brand company could "reduce its water footprint." However, overall vendors lacked details on key performance indicators and did not have available any reports or data about their sustainability performance. As well, vendors lacked any information about the sustainability efforts of their sub-contracted suppliers. Several noted that they did not do any audits or product testing of these smaller suppliers.

- *False Claims*

  Greenwash is occurring to meet brand compliance expectations. While there were vendors making legitimate sustainability claims (particularly the larger branded vendors), there were many vendors making clearly false or illegitimate claims. One pet store supplier stated directly that their claim of "all natural" on their products was strictly for marketing purposes. They had no special procurement or sustainability design requirements for the products. Another vendor was promoting the biodegradability of their "recycled by nature" product that in fact, was not degradable. A furniture supplier to Shangri La hotels was advertising their pieces as "green furniture" but had never heard of FSC certification. In another instance, a furniture supplier explained that they had had FSC certification and could simply "get it back" if it was needed for an order. Other examples included:
  - Claiming certification but no official certification form displayed (e.g. ISO 14000 a very common claim but no name of auditor or certificate number)
  - Claiming certification to a paid consultant's service (e.g. GMG, AAA, SGS)
  - Claiming certification to an ambiguous standard (e.g. GMPC)

- *Worker Overtime*

  To increase productivity and maintain competitiveness in the face of rising wages and labour shortages, vendors are reducing their labour and "replacing workers with automation." It was unclear the extent to which increased worker overtime was also a strategy to maintain their brand contracts. When we asked questions about this, some denied it. One of the furniture vendors claimed that all his pieces were handmade, and yet despite the labour intensity claimed that they didn't use overtime. "We simply tell our buyers they need to give more time to complete the order." Other vendors talked about the importance of paying workers by piece rate so that "lazy workers get less." Many vendors deflected the question by informing us about how much the company had increased wages to its workers. A plastics kitchenware vendor explained how the dining facilities and air quality at his factory were very good so his workers were happy. One vendor gloated that even with only 100 workers he could handle very large orders of 50 containers a month. When we asked how, he replied directly, "overtime." Low piece rate wages make workers dependent on overtime for most of their pay. Many workers, we were told, expect overtime and work three shifts in a row. The base salary for Chinese

workers is around 500-800 RMB per month and total wages are around 2000 RMB per month ($315 USD).

- *Power Disruptions*

  Energy is a critical competitive issue. There are energy shortages and the power grid in China suffers from corruption. Brownouts are frequent, particularly in peak summer months. Factories use low-grade diesel generators to supplement their power. Every vendor was acutely aware of their energy consumption and provided unprompted very detailed information about their monthly power usage. One vendor offered that they had "privileged" access to the grid and had designed their new factory to reduce power consumption. The extent of the impact of power disruptions on worker overtime was unclear.

- *Financial Barriers to Sustainability Compliance*

  Brand compliance audits are different for every customer, and are expensive and time consuming. This presents a cost barrier for many vendors. One of the larger branded vendors noted that they had a fulltime person dedicated to managing brand audits. The factory we toured in Shenzhen had spent $1million in upgrades to meet the Bluesign standard. Most vendors are smaller and producing for customers that want high volume and very cheap prices. They talked about how their motivation was strictly financial – more sales equals more profit. When we suggested that they could access higher value markets and make more profit by passing a Walmart green light audit, one vendor explained that, "our current business model is working but we may consider this in the future."

- *Dual Standards*

  Sustainability expectations from developing country buyers are much lower than from buyers in developed nations. Several vendors showed us two samples of the same product – one for Africa, Asian, South American and Middle Eastern markets; and the other 'eco-friendly' version for North American and European buyers. For example, diapers with organic materials, recycled content, BPA-free plastic containers, bamboo compostable plates and cups, 'all natural' pet products, and eco-certified decking and furniture were all bound for North American and European buyers. Buyers from developing countries just care about price. "Producing cheap for these markets is the priority," vendors explained. Several vendors also mentioned that a portion of their manufacturing had moved to cheaper locations outside of China in South East Asia and that these factories are not audited as the volumes are small – "China still gets the big orders." The movement of Chinese exports and production to developing countries where standards are lower has uncertain, potentially significant implications for achieving sustainability improvements among Chinese suppliers.

3 THE DYNAMICS OF MANUFACTURING IN CHINA

Global economic instability, shifting domestic conditions, and mounting sustainability pressures are re-shaping the manufacturing environment in China and signalling a new era of business sourcing from China. Understanding these dynamics is important for interpreting how and why buyer supply chain sustainability efforts will succeed or fail among Chinese suppliers.

Global Economic Instability

Heavy Export Reliance

China has experienced very fast growth of 10% a year on average over the past 30 years (4 times faster than Europe and North America). This growth has been fuelled by huge exports of cheap goods on the back of cheap labour.

Analysts, including China's Ministry of Commerce officials stress that China's heavy reliance on exports leaves the country's economy vulnerable, and are projecting China's growth rate will soon fall due to lack of orders, rising costs and increasing trade frictions.[6] The global financial crisis resulted in many Chinese factories going bankrupt as well as huge lay-offs of millions of workers. By one account from the BC trade office in Guangzhou, we were told that around half of the manufacturing businesses in the Pearl River Delta area went bankrupt, moved or merged and production dropped by 1/3 to ½ in 2008 as a consequence of the global economic recession.

Trade Frictions

China's massive trade surplus is not just creating vulnerabilities. It is also causing trade frictions. This includes accusations that China is dumping products as well as artificially keeping their currency undervalued (through short term depreciation policies) so as to keep their exports competitive in the face of rising costs. In 2011 alone, 12 anti-dumping cases were filed against Chinese light industrial goods worth around $422 million.[7] In a recent case in May 2012, the United States International Trade Commission imposed a 31% duty on solar panels from China. As well, Chinese manufacturers of towers for wind turbines face duties in the US ranging from 13.7% to 26%.[8] China in turn has sought out the WTO to appeal US countervailing duties on 22 products (including steel and solar panels) that affect over $7 billion of Chinese exports.

[6] China Ministry of Commerce, *2012 Foreign Trade Report*, Beijing, Spring, 2012.
[7] China Import and Export Fair (2012), *China Import and Export Fair Bulletin*, Spring 2012, p.26.
[8] In the past 6 years, China has become the global leader in solar manufacturing with 5 of the top 10 manufacturers, and has the largest installed wind power facilities in the world. American imports of Chinese wind towers are worth around $222 million.

Consumption-Led Re-balancing

To stabilize its economy and smooth its trade relations, China is aiming to rebalance its economy toward consumption-led growth rather than heavy reliance on exports and fixed asset investment (which analysts argue are ineffectively allocated). International economic organizations like the World Economic Forum label China's level of domestic consumption "anaemic." As a percentage of its GDP, China's domestic consumption is just 35% as compared to 71% in the US. Even the emerging economies Brazil and India have domestic consumption levels of 68% and 54% of GDP respectively. The gap for China to address is large. The central government has announced a range of priorities through its latest 5 Year Plan (2011-2015) to restructure the domestic economy to more equitably distribute income and increase the spending power of its 1.3 billion citizens.

As the next section explains, policies coming out of this are going to affect everything from labour rates and social benefits, to environmental penalties and incentives, intellectual property protection, and factory locations.

Shifting Domestic Conditions

Corruption & Pirated Goods

"In today's China, business deals are hardly ever carried out fairly. Mostly it's a matter of who you know, or who you pay off, and then the proceeds are divvied up and down the chain of corruption...not a single person in China can completely break free from corruption, and not a single road is straight," writes Chinese author Hao Qun (pen name Murong Xuecun) in the *New York Times*.[9] Attendees at the Fair echoed this sentiment, with one explaining that, "everyone doing business here in China has dirt under their finger nails. It's unavoidable." Others we interviewed talked about the culture of guanxi that emphasizes relationships more than rules and contracts. Recognizing the problems inherent with China lacking an independent judiciary, Qun continues, "until China has a new system based on rule of law, any anti-corruption campaign would be simply for show."

A common saying about bringing intellectual property to China is "if you can't afford to lose it, don't bring it."[10] Product "knock-offs" and design piracy are commonplace in Chinese production. According to the European Commission, 50% of the global trade in counterfeit goods is from China and just under 65% of their IPR-infringement seizures in 2009 were from China.[11] The United States International Trade Commission (USITC) estimates that the US economy lost

[9] Murong Xuecun, "No Roads are Straight Here" *The New York Times*, May 08, 2012.
[10] The Economist Intelligence Unit, *Multinational Companies and China: What Future? The Economist* An Economist Intelligence Unit Report, London, Nov 2011, p. 39.
[11] European Commission, *Report on EU Customs Enforcement of Intellectual Property Rights: Results at the EU Border 2010*, European Commission Taxation and Customs Union, Brussels, 2010, 2.

around $48 billion in 2009 (the equivalent of 1 million US jobs) due to infringement of intellectual property rights by China.[12] China's share of the value of IPR seizures in the US was highest for footwear (90%) followed by apparel (75%), consumer electronics (64%) and handbags and wallets (62%). By another estimate, illicit phones from China account for 40% of Chinese production and 13% of global production (over 145 million counterfeit phones).[13] Within China, stores are opening with brand names and logos that closely resemble global brands like, "Buckstar coffee," "KFG" chicken, "Borio" cookies, "Neki" shoes, and "Dolce and Banana" apparel. The problem of piracy is so pervasive that, as the Economist Intelligence Unit reports, "fake Apple stores have been created where employees thought they actually worked for Apple." [14]

In response, the Central government has identified the strengthening of IPR protection as a priority under the current 5 Year Plan. IPR is now a priority as well as China introduces and tries to protect its own brands.

The problem of intellectual property rights abuses where vendors are caught with illegally replicated products was evident at the Fair. The Canton Fair organizers highlight that one of their main priorities is to "safeguard the normal order for business deals" in order to help protect IPR.[15] This includes publicizing regulations and complaining methods and helping to facilitate and support booth inspections to ensure exhibitor compliance. There were government banners along the main thoroughfares of the Fair with the messages, "Combat shoddy goods" and "Protect intellectual property."

A special Complaint Office has been set up at the Fair to mediate disputes. The mediations are handled jointly by staff members of the China Foreign Trade Centre and the China International Economic and Trade Arbitration Committee (CIETAC) South China. CIETAC handles final arbitrations. Over the past session the number of complaints (546) and confirmed cases (398) was down from previous years but the complexity of the cases increased. For example, reportedly there are increasing incidents where both parties claim that they can produce legitimate IPR documentation. While the Chinese government recognizes that protecting intellectual property rights is critical to competitiveness, Fair organizers report that businesses are also increasing their knowledge and capacity on how to get around the new rules.

At the Fair, we toured aisle after aisle with one buyer as he systematically checked every booth for knock-offs of his products. He found one and commented jokingly to the vendor that it was his design and that the quality of their product was not so good. When we asked if the vendor

[12] United States International Trade Commission, *China: Effects of Intellectual Property Infringement and Indigenous Innovation Policies on the U.S. Economy*, USITC Publication 4226, United States International Trade Commission, (Washington, DC, May 2011, p. 2-4.

[13] As reported by The Economist Intelligence Unit (November 2011:18), "grey-market" manufacturers copy and even add some of their own innovation to products and devices they are counterfeiting. Cell phones in Ghana can receive television broadcasts and there is a popular selling one in the Gulf States in the shape of a dagger.

[14] The Economist Intelligence Unit, Nov 2011, p.18.

[15] *Canton Bulletin*, 2012, p.27.

was in trouble, he responded, "that one's not that important. I just wanted to give them a bit of a hard time" and continued his fast-paced methodical inspection.

Inequality & Rising Costs

Between 1980 and 2008, the workforce in China grew by 145 million.[16] A very small portion has become very rich, but huge income disparities remain between urban and rural populations. This is causing mounting social unrest in rural areas. 30% of people in China still live on less than $2 a day.[17]

To combat inequities, the government has announced intentions to raise wages by 40% by 2015 (13% a year). Already, wages are reportedly up 15% over the past 3 years. There is also a reported 20-30% shortage of labour in the cities.[18] Vendors at the Fair echoed this. Over the past 5 years, a wood product handicraft maker claimed the wages of his 2500 workers had gone from 700 RMB to 2500 RMB per month. A pet product vendor claimed his 100 factory workers are paid 1000 RMB more per month now versus 5 years ago.

Manufacturers are coping with the rising costs by looking for efficiencies which includes plant management changes, hiring fewer workers, forcing more overtime, and investing in plant automation.

While automation will improve efficiency by lowering labour costs, some analysts argue that China may instead lose some of its competitive advantage with this move. They highlight how production in China is not so much about producing cheaper as producing *faster*. Factories that would be heavily automated in the US have heavy "hands-on" labour in China. This makes the plant inefficient in terms of labour cost per unit of output but also makes the factory much faster to adapt to changes in demand. It's much easier to give new instructions to workers than re-tool equipment on a factory line.[19]

Labour costs are up by 15% as are raw material costs, and price levels in China reflect the rising costs of production. As reported by Fair organizers, "price negations at the Fair are dynamic and prices have been rising." The price of shoes is 16% higher. Jewellery increased 61% and suitcases and bags are up 124%.

The historic reasons that vendors provide to explain the continuing price rise is revealing. In 2008, the reason was the Beijing Olympics and the relocation of factories inland; In 2009, vendors talked about floods and power shortages; In 2010, labour costs and new regulations;

[16] *Economist*, *Pedaling Prosperity*, Special Report, May 26th, 2012, p. 4.
[17] See World Bank statistics accessed July 03, 2012 at http://data.worldbank.org/indicator/SI.POV.2DAY.
[18] *Canton Bulletin*, 2012, p.26.
[19] See James Fallows, "China Makes, the World Takes" *The Atlantic*, July/August 2007, p.11.

and in 2011, labour shortages in addition to commodity price increases, and the increasing cost of credit.[20]

A significant impact of rising prices is on the length of contracts signed at the Fair. When prices are volatile, orders get shorter. 85% of the deals made at the Fair in the recent sessions have been short-term orders (within 6 months). A consequence of shorter-term orders is increased overtime for workers.

Energy Shortages

China's energy demands increased by 130 percent between 2000-2010, making it the world's largest energy consumer. Energy demands in China are further increasing with industrialization and with rising consumer demands for cars, appliances and electronics, as well as, home heating and air conditioning. As well, the government's infrastructure projects to encourage and support domestic consumption require large energy inputs.

There are major weaknesses with the capacity of the power grid in China to support the growing demands. Power shortages and brownouts are common. Energy shortages are compounded by energy intensity targets set by the CPC. This is prompting local governments to force brown-outs so that they can meet the Central government's targets."[21]

The brownouts cause companies to have to shutdown which results in greater worker overtime.[22] As well, many companies have invested in back up generators that run on diesel. This has become a major contributor to air pollution.

China relies heavily on coal to meet 70% of its energy needs. The country consumes about ½ of the coal produced in the world. There are 11,000 coal companies in China and a new coal plant has been opening every week.[23] However, the government has consolidation plans. The target is to have 8 to 10 companies producing 2/3 of the country's coal by 2015.

With its rapid growth and reliance on coal, China has also become the world's greatest source of greenhouse gas emissions. It represents 22% of the world's energy-related C02 emissions, and 80% of China's GHG emissions come from coal. [24]

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[20] The Economist, "The Canton Fair: The China Price" *The Economist*, April 28, 2011.

[21] APCO, *China's 12th Five-Year Plan: How it actually works and what's in store for the next five years* APCO worldwide, 10 December, 2010, p.2.

[22] Haers (plastic and stainless steel food and beverage containers) – an established Chinese brand company -- explained that they "received preferential treatment from the power grid" and that this was of strategic importance because it helped them lower the amount of overtime required by the workers (to make up for downtime during brownouts).

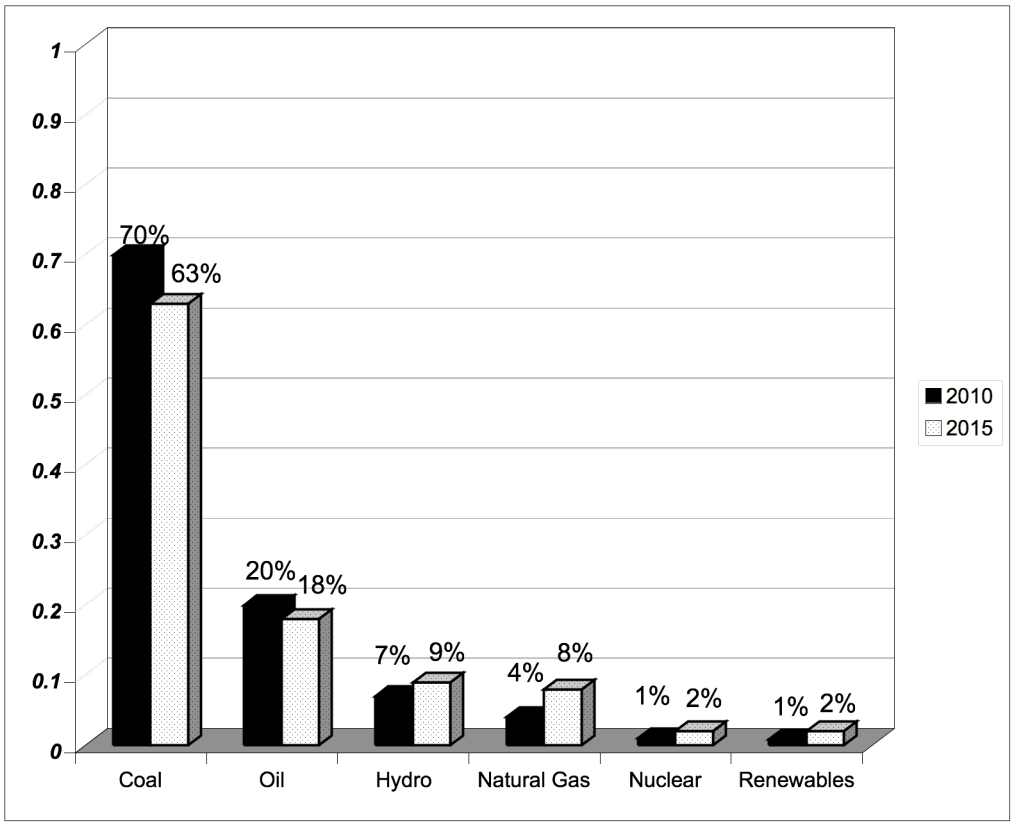
[23] See: JUCCCE at http://www.juccce.com/about_us/our_goals.

[24] Sergey Paltseve, Jennifer Morris, Yongxia Cai, Valerie Karplus, and Henry Jacoby, "The Role of China in Mitigating Climate Change" *Energy Economics*, doi:10.1016/j.eneco.2012.04.007.

Under the 12th 5 Year Plan, the CPC is encouraging green technology and has set energy conservation targets and a cap on domestic coal production. Recently they have announced a pilot cap-and-trade program that they will test in a few major cities in 2013, with the intention to make the program national by 2015.

The plan is to maintain reliance on coal while gradually increasing renewables like wind, solar and biofuels as well as nuclear power (Figure 3-1). The government is providing subsidies and tax breaks as well as investing in smart grid technology to improve the operation of the power grid (many wind farms are not yet connected to the grid). To reduce reliance on fossil fuels, the government has allocated $15.7 billion for development of the green-vehicle sector and set a target of 1 million electric vehicles (including hybrid-electric and battery-powered) to be produced in China by 2015.

Figure 3-1: China's Planned Energy Transition (2010, 2015)



Source: APCO, *China's 12th Five-Year Plan: How it actually works and what's in store for the next five years,* APCO worldwide, 10 December, 2010, p.6

Industrial Restructuring

To deal with rising costs, labour shortages, and the widening gap between rural and urban income levels, the CPC is encouraging major domestic industrial restructuring. This includes policies to:

- Relocate factories from the coast to inland areas;
- Upgrade manufacturing to higher value added; and
- Develop China's service economy.

Many Chinese businesses are already moving from the Pearl River Delta area to inland China. As a buyer at the Fair explained, "The state is making a regulatory shift, allowing more factories inland. This has tampered with the original Shenzhen-Guangzhou corridor of factories and special economic zones. This is creating labour shortages as wages have gone up, and workers are moving towards auto and electronics factories, and cannot fill the lower-waged handicrafts and gifts jobs."

As shown in Table 3-1, the largest exporting provinces continue to be on the Coast but the areas of biggest growth are in the interior including Ningxia and Chongquing with growth rates over the past year of 227% and 282% respectively.

Table 3-1: The Shift in China's Exporting Provinces

Largest Exporters	Fastest Growing Exporters (2010-2011)
1. Guangdong	1. Chongquing (+282%)
2. Zhenjiang	2. Ningxia (+227%)
3. Jiangsu	3. Jiangxi (+90%)
4. Fujian	4. Hubei (+84%)
5. Shandong	5. Xinjiang (+41%)
6. Shanghai	

Source: Canton Import & Export Fair Bulletin, 2012, p.25.

Local governments are helping to facilitate this inland re-location with land re-zoning and subsidies to manufacturers that move. Over the 4-year period from 2006 to 2010, local authorities opened up 22,000 km2 of rural land (an area twice the size of New Jersey). Furthermore, the share of fixed asset investments in inland provinces exceeded coastal investments for the first time in 2010.[25]

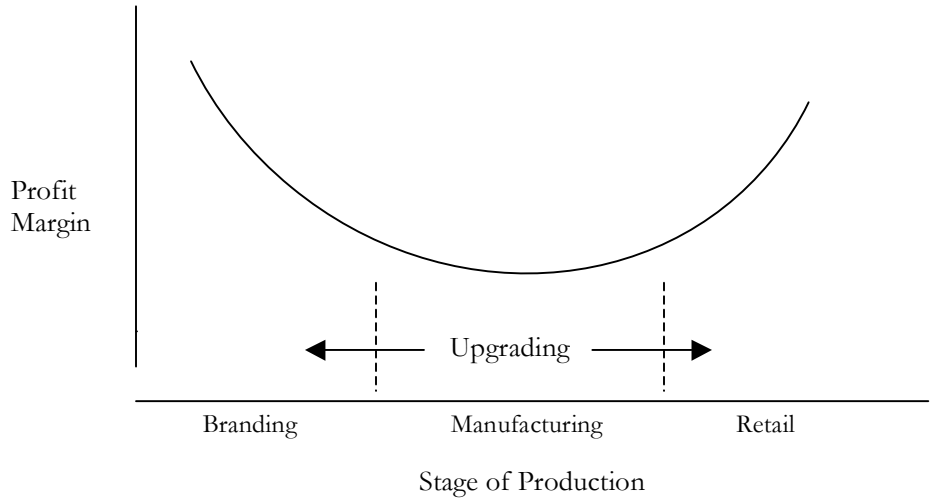
Among the bigger manufacturers in China, they are not only re-locating inland to reduce costs but are also moving some production outside of China to cheaper developing countries like Vietnam, Malaysia, Indonesia, Thailand, Bangladesh and Cambodia.

[25] The Economist, *Pedaling Prosperity*, Special Report, May 26th, 2012: 4, 6.

All levels of government in China are looking to "add value to China's industrial output" through greater innovation and manufacturing quality, and by upgrading into higher value industries like information and communications technology sectors (like Japan, Taiwan and South Korea did). Businesses, as encouraged by the government, are looking to capture greater margins by expanding their manufacturing role further into the supply chain into the design and retailing of domestic brands (Figure 3-2).

China is also looking to reduce its relative reliance on manufacturing through development of its service industry (e.g., construction, banking, telecommunications, transport, tourism, professional services, environmental, energy, health, education, etc.). As reported by the WTO, "services represent the fastest growing sector of the global economy and account for two thirds of global output, one third of global employment and nearly 20% of global trade." China is the world's top exporter of manufactured products but is currently 4th in service trade volume. Its ratio of service-trade to total economic output is 43% compared to around 70% in developed economies, so the country expects large growth in this sector (aiming for 47% by 2015 to approximately $1.5 trillion– an annual growth rate of 11%). To facilitate development, on May 21, 2012, China's Premier Wen Jiabao launched the country's first service-oriented trade fair – The Beijing International Fair for Trade in Service. In its first year, 22,000 service providers from 82 countries attended.

Figure 3-2: Capturing Value Added through Upgrading



The Growing Sustainability Imperative

> "For the businesses that seek to source from China in the coming year, we must be aware that there is a change in the water. With the highest echelons of government focusing on greening the economy, it will only be a matter of time before these regulations trickle down, affecting which factories we choose for partnership down to the methods of procurement…"[26]

Pollution & Social Justice

According to the World Bank, pollution is costing the Chinese economy around 6% of its GDP annually ($100 billion per year).[27] 20 out of 30 of the world's most polluted cities are in China. 50% of China's major cities don't even meet the country's minimal air quality standards (See Box 3-1). 70-80% of the rivers and lakes are polluted and 90% of the urban groundwater is contaminated. Air pollution from 16 million cars and coal burning as well as poor indoor air quality in buildings and factories is responsible for around 1.3 million deaths a year.[28] And "cancer villages" where industrial toxics have damaged the health of local people populate the countryside and have forced evacuations. Growing demand for food, water and energy is driving continually increasing environmental consequences. To quell the growing storm of problems, sustainability is now one of the main priorities in the government's 5 Year plan.

Social justice problems go hand-in-glove with mounting environmental concerns. Even basic needs are not being met. Approximately 160 million people in rural areas lack access to clean water, adequate health care and education. 140 million are malnourished. Within the cities, despite labour laws, worker conditions in most factories are deplorable with long hours, poor safety, and unsanitary conditions.

Government Politics & Policy

In general, the legislation in China on environmental protection and labour standards doesn't differ that much from Europe or North America. For example, there are over 100 environmental laws and regulations in China, and the 1995 PRC Labour Law is comprehensive. The problem is that implementation and enforcement are weak. "The provinces want the money," we were told, so there are no guarantees that the central government's recommendations are being implemented.

The Ministry of Environmental Protection at the National level holds the primary responsibility for environmental protection in China. There are 2500 local Environmental Protection Bureaus across the 31 provinces that are funded by local government to oversee local environmental

[26] Derek Paylor (2011) "CPC Central Committee's Green Proposals for the 12th Five Year Project" *China Sourcer*, Issue 8, April 2011, 19-20.
[27] World Bank, *Cost of Pollution in China*, Washington, DC, World Bank, July 2007.
[28] China Greentech Initiative, *The China Green Tech Report* 2011, Hong Kong, April 2011, p.12.

protection. However, their capacity is generally poor (i.e. lack staff and inspection equipment etc.) and corruption can be common. For example, there are cases where Bureau employees keep factory fines to supplement their wages. This practice then creates perverse incentives for the Bureaus to actually encourage ongoing pollution.[29]

In October 2010, the Communist Party of China's announced its Five-Year Plan for National Economic and Social Development (2011-2015). The plan includes three main priorities: rebalancing the economy, reducing social inequality, and protecting the environment. Under the Plan, it is no longer industrial development at any cost (the mantra that fuelled China's rapid economic growth over the past 2 decades). Instead, new propaganda such as, " stabilizing growth, adjusting structure and promoting balance" and slogans like, "inclusive growth" and "low carbon life" are guiding development that is focused on achieving a "harmonious society" – one that balances economic growth with distributional and ecological concerns through an increased focus on quality more than rate of growth.

More specifically, the CPC has announced a commitment of over 3 trillion RMB toward its environmental protection industry over the next 5 years. It has also set environmental quality targets that will hold local governments accountable for green indicators (e.g. water consumption per unit of GDP; proportion of GDP invested in environmental protection, etc). It is also encouraging green technology and has introduced binding goals including reducing carbon intensity and establishing a "recycling economy" to reduce waste and protect the environment.

China has the potential to move quickly on green projects but often there is a lack of technical know-how at the local level. Non-governmental organizations like JUCCCE (Joint US-China Collaboration on Clean Energy) are helping to build this knowledge through training and technological exchange on how to finance and deploy clean energy solutions. For example, JUCCCE is facilitating a program whereby mayors in China are participating in green tech courses and cooperating with US mayors to take action towards adopting green tech and energy management in their cities. So far, 150 Chinese mayors are participating. The program is helping to drive proactive sustainability governance. As a participant explains on the JUCCCE website video, an essential value of the program is "to avoid the crooked path of 'development first, solve later' that cities in eastern China have taken."

[29] Elizabeth Economy, *The River Runs Black: The Environmental Challenge to China's Future* (Ithaca: Cornell University Press, 2004).

Box 3-1: Local Politics Go International: Beijing's Air Pollution Controversy

Controversy over air pollution reporting in China heightened in early June 2012 with the Chinese government telling Foreign Embassies to stop air pollution monitoring and reporting in China's major cities. A government official in Shanghai told the media that U.S. consulate's air quality feed on twitter was "illegal." The issue has been focused, however, around the U.S. embassy in Beijing.

The Chinese government monitors and reports daily air quality readings in Beijing. In 2011, the government claimed they had 286 "blue sky days" (over 78% of the year). (A 'blue sky day' achieves the highest grade 1 or 2 air quality rating on a 5 point scale.) The U.S. embassy in Beijing also takes daily readings and reports them on their website and on a Twitter feed. The embassy reports much poorer air quality and many more days of concern.

The reports weren't adding up and local citizens began pushing back on the Chinese government to improve their air quality standards, monitoring and reporting.

Beijing responded and cancelled their "blue sky" reporting program (in existence since 1998), and in early 2012 began (in Beijing) to monitor the smaller, more harmful PM 2.5 "fine" particles that can cause permanent lung damage and lung cancer. Prior to this they were only measuring the larger PM10 particles. They also set a requirement for other cities to start monitoring PM2.5 starting in October 2012.

The ongoing issue is that China's PM2.5 standard is much more lenient than the US. Standard. The Chinese standard for PM2.5 is 75 mg/m2 - two-times lower than the US EPA standard of 35 mg/m2. "Good air quality" days for the Beijing government are reported as "unhealthy for sensitive groups" by the U.S. embassy.

The Chinese government wants the US to stop their air quality reporting because of the confusion over the dual readings and standards. They argue that China's air quality standard is more lenient because it reflects China's earlier relative stage of industrial development.

Sources:

Associated Press, "China escalates objection to US embassy disclosing Beijing's air pollution via Twitter" *The Washington Post*, June 4, 2012.

Asia News Network, "Beijing no longer counting 'blue sky days'" *The Jakarta Post*, June 6, 2012.

Advocacy Oversight

Factories in China are facing increased scrutiny of their environmental and social practices from a concerned Chinese public, an alarmed international audience, and a growing activist community. Problems like melamine in baby milk that affected the health of 50,000 children; evacuations of towns after toxics like lead have been found to be poisoning children; and suicides at factory dormitories are drawing global attention and multinational company response.

By some estimates, environment-related concerns have increased 30% per year since 2002.[30] There are increasing protests, demonstrations, complaints, and disputes against factories and harmful pollution and increasing social unrest threatening central government authority. The recent Oscar-nominated film "Warriors of Qiugang" (2010) depicts the rise of protest and local activism. Tracing over 3 years (2007-2010) the film shows the local community protest in the town of Qiugang in the province of Anhui over the health and environmental damage to the air, water and soil from the chemical plant in town (producing pesticides and dyes).

The CPC manages and controls NGOs through a registry that it established in 1994 (prompted by the IOC and Beijing's bid for the Olympics).[31] That year, the Friends of Nature was the first non-profit to be legally established in China under the registry. There are now over 2000 registered environmental groups and many more informal ones (around 1500).[32] The WWF was the first Western ENGO in China as documented in George Schaller's memoir, *The Last Panda* (1993).

The Institute of Policy and Environmental Affairs (IPE) in Beijing has established a coalition of 41 NGOs (The Green Choice Alliance - GCA) who are working together to promote a global green supply chain. They are pushing brand buyers to improve the environmental performance of Chinese factories and are encouraging greater transparency and local stakeholder participation into supply chain management systems.

Specifically, since 2004, the IPE through the GCA has launched a project that is systematically

[30] Carin Zissis and Jayshree Bajoria, *China's Environmental Crisis*, Council on Foreign Relations, New York, August, 2008.

[31] Timothy Hildebrandt, "The Political Economy of Social Organization Registration in China" *The China Quarterly*, 208, 2011, 970-989. See also the website: http://factsanddetails.com/china.php?itemid=388&catid=10&subcatid=66.

[32] "Social movement groups in China are divided into six categories: registered NGOs, sometimes also referred to as "government-organized NGOs" or GONGOs; non-profit enterprises, which are run as non-profit organizations while officially registered as business enterprises; unregistered groups; web-based groups, which mostly function through the internet while remaining unregistered; student environmental associations which are registered on university campuses; and university research institutes, or NGOs that operate under the umbrella of a university. Chinese official news sources estimate that there are roughly 3,500 environmental NGOs in China, including international groups. Approximately 2000 are officially registered, while the remaining 1500 are either unregistered or registered as commercial enterprises." Quoted from: http://asiacatalyst.org/blog/2010/04/chinas-environmental-ngos-an-overview.html.

mapping pollution violations of factories throughout the country and connecting the dots of these plants through the supply chain to global brand companies. They have sent letters to the brand companies letting them know of their various suspected suppliers and asking for a response on what they plan to do to address the suspected problems. (Foxconn was included in this campaign even though they're not a brand buyer.)

The range of responses/or lack of responses from the brand companies is very telling about the culture and commitment of these companies to 'walk the talk' with respect to improving sustainability in their supply chains (See Box 3-2).

Reviewing the data on the IPE website (for their campaign to encourage greater supply chain transparency and accountability among brand apparel and ICT companies) is interesting for noting a difference between supply chain leaders like Nike and the GAP (who see it as a supplemental risk mgt tool to help identify and improve their environmental sourcing practices in China and are lending support and encouragement to the NGOs) versus Marks & Spencer (deflecting the NGO questions) versus Carrefour (completely ignoring the NGO requests).

As well as the growing capacity of domestic NGOs, International NGOs like Greenpeace are also playing an increasing role in investigating and calling global attention to harmful pollution violations and illegal activities. The 2011 Greenpeace report "Dirty Laundry," for example, documented the link between well-known clothing brand companies like Nike, Lacoste and Adidas and fashion retailers like H&M to toxic, river polluting textile suppliers in China, prompting international attention and follow-up action from the brand companies. Nike, Adidas and Puma, for example have committed to eliminate all hazardous chemicals across their entire supply-chains, and their entire product life cycle by 2020; and H&M committed to transparent reporting on the chemical releases from its supplier factories. Li-Ning and C&A have joined these companies to develop a "Joint roadmap towards zero discharge of hazardous chemicals."[33]

The Ministry of Civil Affairs still tightly controls NGO activity. "According to a special report about the U.S. NGOs in China published on March 30th by the China Charity and Donation Information Center, there are about 1,000 NGOs from the U.S. working in China and only less than 3% of them have gained legal status."[34] Governments in China are gradually facilitating an environment that is relatively somewhat more conducive to greater NGO engagement. For example, in November 2011, the Guangzhou government introduced regulatory changes to "promote the spirit and development of the social movement" by reducing the controls and registration requirements for establishing an NGO (a 'private non-enterprise unit'). At the same time, however they are beating and jailing civil rights activists like Chen Guangcheng.

[33] For details see the Greenpeace campaign website available at: http://www.greenpeace.org/international/en/campaigns/toxics/water/detox/intro/.
[34] See Harvard's Hauser Center for Nonprofit Organizations at: http://hausercenter.org/chinanpo/2012/04/less-than-3-of-ngos-from-the-u-s-are-legally-registered-in-china/.

Box 3-2: China's Green Coalition Alliance Supply Chain Sustainability Project

Recognizing that the GCA data is a snapshot in time and reveals only the company's effort to respond to the NGO's unsolicited letter, the findings are nevertheless interesting.

As summarized in Table 3-2 below, the results of the Green Coalition Project to date (June 06, 2012) reveal a higher level of information and communications technology (ICT) company cooperation versus apparel companies particularly with respect to sending a letter of response to the IPE survey and checking up on the noted supplier violations. ICT companies also appear to be doing a better job in using public information to identify and continually improve their environmental performance. Neither sector communicates a high level of accountability regarding providing corrective action explanations or transparency in disclosing discharge data. Both sectors are failing to communicate any of their efforts to either engage main suppliers or encourage sub-tier supplier responsibility.

Digging deeper into the project data reveals some confirming and surprising individual brand company indicators with respect to their levels of supply chain sustainability commitment. Among the apparel companies, it is not surprising to see that Nike is the only one to communicate that it is pushing its main suppliers for greater second tier supplier responsibility. H&M also stands out as a leader as the only company to reports that it regularly discloses its discharge data. Supply chain leaders in the ICT sector are Nokia and Philips who are pushing their main suppliers, and Vodafone who is encouraging second tier supplier sustainability engagement.

Surprising laggards in the apparel sector appear to be the Gap and C&A (the world's biggest clothing department chain), and Dell, IBM, and Apple in the ICT sector – none responded to IPE with corrective action explanations. Lagging even further, Carrefour (the 2nd largest retailer in the world) has failed to respond to any IPE communication.

Marks & Spencer (M&S), with its aim to become the world's greenest retailer stands out in particular for failing to respond to any of the IPE concerns. In their response of April 30th, 2012 to the IPE, M&S did provide some information on their environmental efforts in China but failed to address any of the issues or question about the suspected violations of their suppliers. IPE sent another letter on May 4th, 2012 to the company to request more information and explained that other brands had been much more transparent and accountable in their engagement with IPE. M&S' lack of engagement compares to brand leaders like Nike, that responded by indicating their support for IPE's work and their enthusiasm to sign up to the joint road map project to eliminate hazardous chemical discharge by 2020. As well, Nike responded directly to questions about their suspected suppliers and encouraged IPE to keep them informed of any additional information they uncovered.[35]

[35] For summaries of the Green Coalition's communication with the brand companies see: http://www.ipe.org.cn/En/alliance/new01.aspx.

Table 3-2: Brand Company Supplier Communication in China

	Brand Apparel Companies (48)	Brand ICT Companies (33)
Replied to NGO letter	50%	97%
Checked up on supplier violations	42%	97%
Use public info for continuous improvement	25%	76%
Provided a corrective action explanation	17%	33%
Regularly disclose discharge data	2%	0%
Directly extend environmental management to main suppliers	0%	6%
Push main suppliers to manage secondary suppliers	2%	6%

Source: Compiled from IPE project data available at http://www.ipe.org.cn/En/alliance/new01.aspx (accessed June 06, 2012).

Brand Retail Compliance

It is not just the mounting cost of pollution, labour problems, advocacy pressure, and new government policies that are pressuring Chinese suppliers to adopt sustainability considerations. As the next section outlines, they are also facing increased transparency and accountability requirements from brand buyers who want to manage product quality as well as mitigate the risk of reputation damage from poor environmental and social practices of direct tier 1 suppliers as well as sub-contracted lower-tier suppliers.

4 BRAND RETAIL SUSTAINABILITY GOVERNANCE

Big Brands Racing to Zero

Since the 1990s, brand retail companies have been developing codes of conduct and conducting social and environmental audits of their offshore suppliers to minimize risk and protect their brand reputations. In the past five years, there has been a dramatic rise in sustainability commitments that go deeper than just reputation assurance (Table 4-1). The big brands are adopting sustainability programs and driving them through their core business and across their global supply chains for business value.

Table 4-1: Big Brand Sustainability Commitments

Company	Sustainability Program	Year Launched	Promises/Goals
McDonald's	Sustainable Land Management Commitment	2011	Ensure the food served in McDonald's restaurants is sourced from certified sustainable sources.
Procter & Gamble	Sustainability Vision	2010	Design products that maximize the conservation of resources.
Unilever	Sustainable Living Plan	2010	Decouple business growth from environmental impact.
PepsiCo	Performance with Purpose	2009	Deliver sustainable growth.
FedEx	Earth Smart	2009	Extend the depth and breadth of how sustainability is integrated into the company.
Nike	Considered Design	2008	Performance without compromising sustainability.
IBM	Smarter Planet	2008	Apply smart technology systems to sustainability solutions.
Starbucks	Shared Planet	2008	Aspire to environmental stewardship, ethical sourcing, and community involvement.
Marks & Spencer	Plan A	2007	Become the world's most sustainable retailer by 2015.
Coca-Cola	Live Positively	2007	Make a positive difference in the world.
Johnson & Johnson	Healthy Planet	2006	Safeguard the health of people and the planet.
Walmart	Sustainability Commitment	2005	Commit to zero waste, 100% renewable energy, and sustainable sourcing.
General Electric	Ecomagination	2005	Grow through clean energy, clean water, and clean technologies.

Source: Adapted from: Peter Dauvergne and Jane Lister, *Eco-Business* (Cambridge, MA: The MIT Press, In Press).

These emerging big-brand sustainability governance programs are anchored in unprecedented aspirational commitments to "purpose-driven" growth and supply chain "greening." As the author of the triple bottom line concept, John Elkington explains in his new book, *The Zeronauts*, companies are now claiming to be competing in a race towards zero impact growth by adopting goals such as zero waste, zero carbon, zero fossil fuel reliance; zero toxics, and zero deforestation.[36] Companies admit they are a long ways off but are optimistic about the prospects.

As a representative from Dupont explained to us at the Fair, their company used to not want to communicate their sustainability efforts out of fear of criticism. Now, they are setting big goals and reporting their progress along the way. "We are now telling the story of Dupont's journey," the Dupont representative remarked. "There is good news here even though we're not all the way there."

Recognizing that they can't reach their goals on their own, brand companies are collaborating. This includes sharing intellectual property like design and process patents through mechanisms like the GreenXchange.

As well, to standardize and scale-up sustainability within their industries and global supply chains they are establishing sustainability consortia (Table 4-2). Competitors now sit in the same room, acting cooperatively through these consortia to share information about materials, metrics, and suppliers to facilitate the development and implementation of business tools to advance sustainability improvements.

Table 4-2 Big Brand Sustainability Consortia

Consortia	Formed	Stated Purpose
Sustainable Apparel Coalition	2011	Encourage sustainable manufacturing and inform consumers of the ecological impact of clothing.
Consumer Goods Forum	2009	Develop and promote the implementation of responsibility standards along consumer goods supply chains.
The Sustainability Consortium	2009	Encourage more sustainable products through scientific research, innovative technology, and standards.
Outdoor Industry Association Sustainability Working Group	2007	Improve the social and environmental impact of outdoor equipment, clothing and footwear.
Beverage Industry Environmental Roundtable	2006	Define a common framework and drive continuous improvement in beverage industry environmental stewardship.
Electronics Industry Citizenship Coalition	2004	Improve working and environmental conditions in electronics supply chains.

Source: Adapted from: Peter Dauvergne and Jane Lister, *Eco-Business* (Cambridge, MA: The MIT Press, In Press).

[36] John Elkington, *The Zeronauts: Breaking the Sustainability Barrier*, Routeledge, 2012.

Brands are also collaborating with NGOs. Nike, Walmart and Unilever are cooperating with the Green Choice Alliance project to map polluters in China and are using this information to strategically target and improve supplier practices and sustainability performance.

Supply Chain Sustainability Tools

Companies vary in their approaches to sustainability. However, business tools to improve supply chain environmental sustainability performance are becoming increasingly standardized. Among the instruments brand companies are employing include: lifecycle assessments, supplier scorecards, eco-indices, eco-certification, compliance audits, and key performance indicator (KPI) reporting (Table 4-3).

Table 4-3: Supply Chain Sustainability Tools

	Function	Best Practice Examples
Life Cycle Assessment	Identifies and assesses the environmental impacts of material, processes and products along the supply chain.	- ISO 14040 standard - Sustainability Consortium - Global Packaging Project - WBCSD - Levis LCA
Eco-metrics & Sustainability Indices	Measures and provides aggregated scoring of sustainability performance to enable best practices benchmarking.	- Nike considered index - OIA Eco-index - Sustainable Apparel Coalition - Walmart Sustainability Index - The Sustainability Consortium Metrics
Supplier Scorecards	A simplified framework for recording and evaluating a supplier's overall sustainability performance.	- Walmart - Consumer Goods Forum
Supplier Codes of Practice	Requirements for guiding supplier sustainability.	- Hewlett Packard
Procurement Policies	Sustainable purchasing commitments and requirements.	- Home Depot - Staples - Consumer Goods Forum: Zero Deforestation Purchasing
Eco-certification	A third-party standard for evaluating and assuring the sustainability performance of business operations and consumer products.	Operations ISO 14001 (environment) ISO 9001 (quality) ISO 50001 (energy) OHSAS 18001 (health & safety) GlobalGap (food systems)

	Function	Best Practice Examples
		FSSC/FS 22000 (food systems) <u>Products</u> Bluesign (apparel) Organic (food, apparel) Fair trade (food, apparel) FSC or PEFC (wood & paper) ENERGY STAR (appliances)
Compliance Audits	A check on supplier practices and products as per a pre-defined set of sustainability criteria.	- IKEA IWAY - Walmart - UL, QMI, SGS
Reporting	A documented summary of sustainability progress and performance.	- GRI - Nike - VanCity - Sustainability Consortium Measurement & Reporting System
Social Sustainability Compliance Audits	Standards to assess compliance with respect to labour practices and community engagement.	- SA8000 - Global Social Compliance Program - AA1000

Evaluating Supplier Performance

Metrics & Reporting

Brands face increasing expectations to manage the sustainability performance of their supply chains. In response, (under the adage “what gets measured, gets managed”) they are defining and implementing sustainability key performance indicator metrics and supplier scorecards. Specifically, they are setting measurable goals and targets around energy, water, waste, carbon, health & safety, and human rights. These are translated into codes of conduct and compliance requirements that suppliers are audited against. Suppliers are also required to keep records and report on the key performance indicators. Brands then use audit results and supplier records and reports to measure and assess supplier performance.

Audit Rating & Penalty/Reward Systems

Audit programs are not consistent between brand buyers. Different brands have different audit methods and audit to different standards and protocols. They employ different audit pass or fail rating systems. And they have different penalties for non-compliance. As a supplier explained, "If you cheat and are caught, Europe will destroy all of the materials that you've exported for sale. The US doesn't destroy materials. They simply issue a small fine."

Carrefour has a sliding scale that gives compliant suppliers an A (compliance with the charter and implementation of best practices) and the worst performers a D (critical situation requiring the implementation of major corrective actions). Walmart uses a progressive red, orange, yellow, green light ranking system (Table 4-4).

Table 4-4: Walmart's Compliance Audit Rating System

Audit Rating	Violation Level	Audit Schedule
Green	Low-risk	Re-audited after 2 years
Yellow	Medium-risk	Re-audited after 1 year
Orange	High-risk	Re-audited after 180 days
Red disapproved	Egregious	Barred from business with Walmart for 1 year
Red failed	Egregious	Permanently barred from business with Walmart

Source: *Walmart 2011 Global Responsibility Report*

In the event of non-compliance, Carrefour's suppliers have to implement a corrective action plan. If a supplier is in serious breach of compliance (a D rating) or refuse to follow-up on audit corrective actions then they are dropped. Walmart states that they will work with suppliers that fail to comply, but "if after a period of time, the supplier does not improve, we will move our business." They lack transparency, however, on the extent to which dropping their suppliers actually occurs.

Similar to Carrefour, Nike has relied on an A to D rating system for its suppliers. However, recognizing that they were not achieving ongoing continuous improvements with their suppliers, they recently, in May 2012, announced a new audit rating system. Companies that were at the highest "A" level will become bronze and two new higher levels of sliver and gold compliance have been introduced with tougher requirements on labour practices and sustainability improvements. Nike has announced that it expects all of its suppliers to achieve bronze-level by 2020 or risk losing Nike's business.

In terms of performance reporting, Walmart uses their rating system to aggregate audit results and communicate trends. As of 2011, 93% of their suppliers from China were either yellow medium or orange high risk, and none were red. This is reportedly an improvement over 2010 where 1.8% of their suppliers were 'red disapproved'; and 1.6% were 'red failed'. The

percentage of green-level low risk suppliers improved from just under 2% to 7% of Walmart's total audited suppliers from the region.[37]

There is a lack of standardization of metrics, codes, audit protocols, and supplier rating and penalty systems. Factories complain of the administrative burden of preparing for a large number and range of slightly different brand customer audits. There are harmonization opportunities and initiatives as section 6 explains, particularly for brands sourcing from the same factories.

[37] A consultant we interviewed in Guangzhou informed us when we asked which retailer's factories were the best in China, that Walmart's factories are better than Chinese factories that produce for domestic consumption but worse than other factories that produce for export.

5 CSR PERFORMANCE IN CHINA

Gaining Traction

Corporate responsibility has low prevalence but is gaining some traction in China.[38] Numerous events have reinforced expectations of greater corporate responsibility including: food and product safety scares like the recent discovery of toxic chromium-laden pharmaceutical drug capsules; labour scandals like the suicides at Foxconn; environmental challenges like air and water pollution; natural disasters like the earthquake in Sichuan; and heightened world media attention with the Beijing Olympics. And sustainability services are growing like the Guangdong Modern Services Trading Centre that facilitates the linking of 40,000 Guangdong manufacturers with brand buyers and is trying to get factories interested in "Low carbon. Better life" workshops.

Still CSR uptake remains low and uneven. According to China's 3rd annual *Corporate Social Responsibility Blue Book* released by the Chinese Academy of Social Sciences[39] in November 2011, 2/3 of the 100 biggest companies operating in China are "CSR bystanders." They do not promote or disclose sufficient information about CSR, scoring only 19.7 points on average out of 100. Of the state-owned, private and foreign companies evaluated on their management, market, social and environmental responsibility, the state-owned companies scored the highest but even their CSR efforts were found to be very low. The worst were the foreign firms. 19 of them even scored zero or lower on the ranking. Adidas, for example, came out with a total of -4 points. The study found that the company hadn't sufficiently communicated their plans about CSR development, corruption, environmental management, energy conservation, pollution control or emission reduction.

Among the SMEs, the worst labour and environmental abuses some believe come from low value markets (like handmade things) and are also strongly correlated with the presence/interference of trading companies (that lower manufacturer's margins). Industries with the worst violations include those with dye and handiwork, such as the making of accessories like belts, wallets, bags, gifts, crafts, etc.

While individual companies are lagging in their CSR commitments and efforts, the Central government has recognized the need to invest in a greener economy. China is already *the* global leader in green tech, for example, bypassing Germany, Japan and the US which were top producers in 2005.

The government is building even further on this capacity. Under the current 5 Year Plan, the CPC Central Committee has identified 7 "strategic emerging industries" – 4 of which are in the

[38] See, for example, M. Jun, R. Cheung, W. Jingjing, and R. Quingyuan, *Greening Supply Chains in China: Practical Lessons from China-based Suppliers in Achieving Environmental Performance*, IPE and World Resources Institute, Washington, D.C., 2010; and Global Supply Chain Council, *Green Supply Chain China Survey*, Global Supply Chain Council, Shanghai, 2010.

[39] The Chinese Academy of Social Sciences is China's top think tank with close ties to the Sate Council.

environmental sector including: biotechnology, energy conservation, environmental protection, and clean energy vehicles. They aim to support these sectors with incentives, tax breaks, preferential procurement etc. The government has earmarked 4 trillion RMB in financial stimulus for these industries over the next 5 years. As well, they have set specific targets to guide and shape the development of these sectors including an aim to produce 1 million electric vehicles by 2015; an objective of 15% of domestic energy supply from non-fossil fuels by 2020; and a goal of 40-45% carbon reduction (per unit of GDP) also by 2020.

Murky Disclosure

It's hard to know exactly what is going on in China. Rules and goalposts change. There is a lack of consistent standards. Every province and customs zone, for example has different export customs regulations. Business transparency and accountability are also lacking. Even the preparation of basic financial documents and disclosure is not consistent practice. There is somewhat of a trend toward increased reporting and engagement by large state-owned companies but overall business transparency among the small to medium-sized businesses that define the manufacturing landscape remains highly murky. Trying to identify, track and manage suppliers in this environment is a colossal challenge. Suppliers sub-contract portions of their manufacturing which in turn gets sub-contracted to 3rd and 4th tier suppliers.[40]

Transparency issues were evident at the Fair. Fair organizers were communicating assurances that all of the vendors were in fact manufacturers and not trading companies. Some vendors had signs that proclaimed, "We are a manufacturer."

In many cases the vendor appeared to be making exaggerated claims about the plant capacity, labour flexibility and certification of the facilities. At one booth for example, when we pressed the vendor as to whether the wood for their furniture also came from Russia, Burma or Indonesia, the answer was, "our wood comes from Canada and Sweden and is certified. This is what my manager told me to tell you." Without actually seeing the factory, it was difficult to know whether we were simply being told a "golden tale" and shown a "golden sample" that did not convey or reflect the company's actual operations and products. However, even a factory tour or audit, we subsequently learned does not guarantee full transparency.

Since its problems in the 1990s when child labour was discovered in its supply chain, Nike has been a leading advocate of supply chain transparency and was the first apparel company to disclose the names of all of its suppliers and their locations. However, Nike has since realized that their commitment to sharing information about its suppliers and their level of compliance has had somewhat of a perverse unintended effect in encouraging some of its suppliers to

[40] Peter Levesque, "Building Resilience and Sustainability into the Chinese Supply Chain" In Peter Levesque (Ed.) *The Shipping Point: The Rise of China and the Future of Retail Supply Chain Management,* John Wiley & Sons, 2011.

devise progressively advanced tactics to conceal rather than reveal and improve their business practices.[41]

Unintended Impacts

Brand buyers invest in compliance audit programs on the assumption that regular checks will discourage Chinese suppliers from unethical behaviour and help guide them to fix environmental and labour problems. Furthermore, the hope is that in following-up to fix audit findings, the suppliers will also realize cost savings from improved operational efficiencies that will in turn, encourage ongoing self-directed innovation and continual improvements. While this is the case with some leading suppliers, in many instances, unintended consequences are occurring.

For one, audits can motivate false record keeping. As one supplier explained, although a lot of brands want the same standards, "some make it very easy to cheat since they allow you to self-report." As well, audits can discourage supplier self-governance as researchers at Stanford found through an experimental model. Frequent audits they discovered can turn suppliers into "free-riders" on the brand buyers audit program where suppliers essentially become reliant on the audit process as their means to detect violations rather than taking on any proactive behaviour themselves. The Stanford model also confirms how there are situations where audits may actually work in a perverse way to worsen supplier compliance with "high audit intensity motivating the supplier to hide rather than comply."[42]

Another unintended consequence of audit programs is that manufacturers may interpret the identification of opportunities for efficiency improvements as a means and justification for buyers to put further downward price pressure. So, even if factories see the potential to improve efficiencies they will not want to reveal this to the brand buyer as they fear this will only cause the buyer to reduce their price further.[43] As one interviewee explained, brand buyers like Walmart will offer 50/50 on savings from sustainability efforts but they are squeezing so hard on price the supplier ends up not making anything. By ignoring or obfuscating factory improvements, the factory then has a better chance to guard its profit margin.

And in addition, at a broader scale, brand audits have sparked an entire industry of small corrupt audit companies in China where ISO 14001 certifications are gained with false documentation and pay-offs. [44]

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[41] Hau Lee, Erica Plambeck & Pamela Yatsko, "Incentivizing Sustainability in Your Supply Chain," *The European Business Review*, 2011, p. 2.

[42] Q. Zhang and E. Plambeck, *Auditing, Hiding, and Compliance in Socially Responsible Supply Chain Management*, working paper, Stanford Graduate School of Business, 2011.

[4343] Rachel Sherman, et.al., *China Sustainable Retail Supply Chain Report*, Efficiency Exchange LLC, February 2012, p.9.

[44] Hau Lee, Erica Plumbeck, and Pamela Yatsko, "Embracing Green in China…With an NGO Nudge" *Supply Chain Management Review*, March/April 2012, p. 42.

Brand buyers face the constant challenge of trying to balance and push for greater supplier transparency and continuous self-motivated CSR improvement while preventing unintended worse behaviour. A buyer saying that they will drop or refuse to do business with a non-compliant factory can encourage greater deception so that the supplier won't get caught the next time. Even incentives intended to encourage suppliers to take on more proactive sustainability measures, can end up spurring false record keeping as suppliers vie to win the rewards. Increased scrutiny by communities and ENGOs (like the work of the IPE) is helping to supplement audit programs to improve supplier transparency and accountability but there is also opportunity for brand buyers to consider new approaches and efforts.

6 GOING BEYOND COMPLIANCE

Audit programs encourage compliance but are not as successful at bringing about more fundamental sustained changes in business attitudes and behaviour. Typically, auditors identify a problem that gets fixed only to have another arise in an endless cat-and-mouse audit cycle. Audits, on their own fall short of instilling a deeper CSR culture of continuous improvement. And as section 5.3 explained, deception, free-riding, and corruption are often unintended audit consequences.

Brand compliance efforts that go beyond auditing therefore have the potential to improve supply chain management effectiveness. Among the actions brand buyers can take to encourage incremental improvements in supplier practices include:

- Communicate a clear, consistent vision of the desired sustainability outcomes.
- Establish benchmarks for best management practices.
- Provide training, technical guidance and assistance to suppliers on planning and implementing best management sustainability improvements.

However, to go beyond incremental improvements to achieve transformative change in Chinese supplier behaviour and commitment to environmental and social responsibility will require more than information sharing and technical guidance. It will require brand companies to evaluate their own business practices.

Incremental Business Practice Improvement

Communicating Clear & Consistent Goals

Motivating supplier sustainability improvements hinges on suppliers understanding the brand buyers' goals, the justifications for pursuing these goals, and the brand expectations of suppliers in meeting these goals. Diverting attention from the drive for immediate profit to longer-term sustainability considerations is inherently difficult. As one manufacturer explained, "It is harder to get companies in China to think longer-term. The US and Europe exported all of their pollution to us following WWII. Local governments do not regulate. So many companies think short-term."

The lack of a clear definition of sustainability and the confusing array of compliance requirements and audit approaches among the brand companies compounds the difficulty in engaging suppliers in implementing changes. Greater collaboration among brand companies to harmonize definitions, goals, standards and audit approaches would help significantly to establish clear and consistent direction to help motivate suppliers.

Benchmarking Best Practices

Industry benchmarks that detail best practices with respect to innovative processes and optimal levels of performance with respect to key sustainability areas such as energy, carbon, water, waste, health & safety and human rights can serve to guide suppliers as well as help brands establish consistent targets and goals.

Several organizations are taking leadership in benchmarking initiatives including:

- BSR's initiative in China to identify energy management Best Practices.
- GRI G4 supply chain benchmark indicators.
- UN Global Compact's Supply Chain Self-assessment tool.
- Sustainable Apparel Coalition Life Cycle metrics Apparel Index tool.
- Walmart's supplier scorecard assessment tool.

Best practices pilot projects and case studies can also help to identify innovative ways to cut supply chain costs and produce sustainability benefits. Transportation logistics is a particularly underdeveloped area (Box 6-1).

Box 6-1: Transport Logistics Best Practices Pilot Study

A recent pilot study at a manufacturing facility (supplying to Walmart) identified specific logistics initiatives that would achieve greater time, labour and energy efficiencies while also reducing costs and carbon emissions.

The study divided the supply chain into all internal movement of materials within the facility and external movements to and from the plant. They looked at the carbon footprint and costs of each such as: raw material sourcing, transportation from suppliers to plant, storage, pallet design and stretch wrap. They mapped every vendor that supplied the plant and weighed materials and products and the distance they traveled and the mode of transit in order to evaluate alternatives. Recommendations included switching to rail versus trucking.[45] Forklift movements in the plant were discovered to have an unexpectedly high contribution to emissions. In particular, forklift idling and waiting while pallets were being wrapped was identified as a non-value added activity that could be eliminated. In several cases, it was found that materials could be sourced from vendors in closer proximity and storage could also be re-located to be onsite to reduce travel distances. Loading recyclables on a returning truck was also identified as an opportunity to cut costs and generate revenue. Full implementation of the recommendations was estimated that it would save the plant $1.2 million every year and reduce its carbon footprint by 3500 tonnes annually.

Source: A. Bayat, S Sundararajan, H. Gustafson, E. Zimmers, "Sustainability Driven Supply Chains," *Industrial Engineer*, August 2011, p. 26-31.

[45] A ton of freight is shipped 2 to 4 times more efficiently by rail than by truck. Rail becomes relatively cost effective for trips above 750 miles.

Training & Technical Guidance

Most suppliers in China are small to medium-sized businesses with insufficient technical skills and understanding to meet sustainability compliance requirements. The Global Supply Chain Council's recent green survey of 145 Chinese suppliers identified "lack of awareness of environmental issues" as the biggest issue facing companies in China.[46]

Rather than dropping a supplier for a "red light" rating, brands have an opportunity to work more effectively with suppliers through cooperation to build knowledge and skills. Nike is among the leaders. As Jason Mak, Director at Chun Wo Ho explained, "Many brands simply send you a questionnaire and let you audit yourself. Nike, however, has extensive training programs." Jason highlighted how important the training was. He attended a Nike training session in Hong Kong and in turn took this knowledge to train his staff on how to save energy in the plant. He noted that he needed to implement these changes to meet his customer's expectations and "get in the Bluesign game."

Brands can also do more through collaboration. Nike, Walmart and GE, for example are cooperating in supporting environmental health & safety academies in Guangzhou and Jiangsu to train Chinese practitioners to guide factories in meeting brand company compliance requirements.[47] As well, Walmart has been working together with Business for Social Responsibility since 2009 to build supplier capacity to improve energy efficiency by offering training and guidance.[48]

Transformational Change

Striving through brand retail governance to improve the sustainability performance of Chinese manufacturers raises bigger questions. Can brands engage their suppliers (and sub-tier contractors) at a deeper level to ongoing social and environmental responsibility? Can they build trust in supply chain relationships in China so as to achieve more transformational behavioural change toward CSR? Is the compliance audit carrot-and-stick penalty and reward system optimal or are other approaches potentially more effective? And at the most fundamental level is supply chain sustainability achievable in China when buyers demand environmental, social and quality improvements at the same time as squeezing on contract duration, price, and delivery times. How can Chinese manufacturers balance all of these expectations while maintaining competitiveness?

Some argue that buyer demands for the low "China price" simply drives ethical Chinese vendors out of the market. Only cheaters can win the supply contracts so a self-perpetuating system of

[46] Global Supply Chain Council, *Green Supply Chain China Survey*, Global Supply Chain Council, Shanghai, 2010.
[47] See Institute for Sustainable Communities at http://www.iscvt.org/where_we_work/china/.
[48] BSR, *Unlocking Energy Efficiency in China: A Guide to Partnering with Suppliers,* May 2010.

corrupt actors is created. One of the consulting firms we interviewed in Guangzhou explained that the Canton Fair was representative of the "bad actors" – that buyers at the Fair are shopping for cheap, short-term deals so the sustainability of vendors is low.

The majority of suppliers in China are SMEs already operating on tight margins so it is difficult for many to find obvious ways to cut costs. Usually they lack technical skills and knowledge and for most, any sort of equipment upgrading is cost prohibitive. Short-term purchase contracts also make investments in upgrades highly risky. Paying a fine can be a cheaper option. Rather than improving CSR, many suppliers therefore find ways to cut corners to maintain the low "China price" by substituting in cheaper materials or ingredients, increasing worker overtime, and paying-off government officials.[49] We were informed on several occasions from different sources about "red envelope" factory zones in China where bribes are standard business practice.

Penalties or incentives can motivate suppliers to change but can also spur even more cheating. Neither approach guarantees continuous improvement. Avoiding failure is pronounced in China where it is closely associated with the strong cultural motivation of "saving face." A loss of face through failure can mean serious shame on family. Business owners and employees will therefore go to lengths to avoid perceived failure by concealing problems. Brand attempts to force suppliers to expose problems in their factory will therefore most likely be unsuccessful. In China, deception is not viewed as shameful. Getting caught is.

To try to encourage transparency, discourage deception, and build trust, there is opportunity for brands to take more flexible approaches – for example, by making it clear to suppliers that they will not be given a red-level warning for a problem as long as they agree to produce the correct records i.e. giving suppliers a "working compliance" grace period and avoiding the label of failure.

But to motivate deeper behavioural change and instil a culture of continuous improvement among Chinese suppliers will require even more. The fundamental barrier to supply chain sustainability in China will need to be addressed: a global retail business model that hinges on rewards from cheap labour, cheap goods, low prices and short-term purchase contracts.[50] Only truly innovative self-reflective brand retail companies that understand, transform, and navigate their own business behaviour beyond this will prove truly successful with their sustainability efforts in China.

[49] Alexandra Harvey, *The China Price: The True Cost of Chinese Competitive Advantage* (London: Penguin Press, 2008).

[50] These recommendations draw on our interview findings and literature review including in particular, the research of Dr. Erica Plambeck and Dr. Hau Lee at Stanford Graduate School of Business, and a recent study on retail supply chains in China conducted in 2011 by Efficiency Exchange LLC in cooperation with The George Washington University's Institute of Sustainability, Beijing University HSBC Business School, and the Center for Social Value Creation at the Robert H. Smith School of Business at the University of Maryland. See Rachel Sherman, et.al., *China Sustainable Retail Supply Chain Report*, Efficiency Exchange LLC, February 2012.

Future Research

There are opportunities to address knowledge gaps in several areas to improve brand supply chain sustainability tools, approaches, and effectiveness:

- *Transportation Logistics*
  Key performance sustainability indicators and best management practices are underdeveloped with respect to the delivery of materials to factories, movements within the plant, and the shipping out of products. There is opportunity to identify, summarize and compare leading efforts across sectors like those of the Sustainable Apparel Coalition and Outdoor Industry Association to establish benchmarks indicators around inbound and outbound freight transport, packaging, carrier selection, and transparency.

- *The Business Case for Social Compliance*
  As Jason Mak, Director at Chun Wo Ho explained, "there are cost incentives for environmental reforms but no real cost incentive to increase health and safety or labour conditions more broadly." There is opportunity to fill this knowledge gap and help build the business case for social compliance by identifying suppliers that are successfully implementing improvements and communicating these best practice examples.

- *Motivating Continuous Improvement*
  There is variance in how brand retailers are evaluating performance and rewarding or penalizing suppliers for their level of compliance. There is a knowledge gap in terms of understanding the range of approaches across sectors; why there is variance; and the impacts and effectiveness in motivating supplier compliance and continuous. A comparative study to examine the pros and cons of carrot and stick methods would assist brand companies in determining optimal approaches.

- *Lowering Barriers through Harmonization*
  Suppliers face high costs in managing the growing number and frequency of audits by different brand buyers and the range of slightly differing performance requirements and data reporting requests. A study to document the range of audits and extent of variation in performance and reporting expectations among brand retailers would provide a useful baseline to identify and initiate harmonization opportunities.

- *The Impact of Economic Re-organization*
  There are large uncertainties with respect to how factory relocations from the coast to inland areas, and the automation of plants will impact labour conditions. An investigation of businesses undergoing the transition would provide strategic knowledge for anticipating and managing supply chain risk and ensuring continuing supplier sustainability performance.

- *Dual Global Standards*

  Buyers in high-income countries demand higher sustainability compliance standards than lower-income countries. As Chinese exports to developing countries rise, the progress of sustainability compliance among Chinese suppliers may suffer given the lack of customer interest or demand for sustainability in these regions. There is opportunity to study this trend in order to understand the future prospects and challenges for broader supply chain sustainability uptake in China.

* * *

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CPC Ministry of Environmental Protection: http://english.mep.gov.cn/
China Environment Forum, World Bank: http://www.worldbank.org/en/country/china.

APPENDIX A: SUPPLIER QUESTIONS

Company Name:_____

Contact:_____

1. Background

Company Size ☐ Large ☐ Medium ☐ Small	Employees: Revenue:
Products:	Volume/Facilities:

2. Markets

	% sales	Growing market?	Decreasing market?	Do you sell to any big brand buyers? Where? Who?
North America		☐	☐	
Europe		☐	☐	
Middle East		☐	☐	
Asia		☐	☐	
Africa		☐	☐	
Other		☐	☐	

3. Does your company have concerns about environmental sustainability?

Low Med High

_____

4. Do your products have environmental design considerations? Yes No

5. How does environment compare to your concerns about labour standards, and transport efficiency (rank 1 most important; 3 least)?

Environment	1	2	3
Labour	1	2	3
Transport Logistics	1	2	3

6. Why is your company concerned about sustainability?

Environment	Labour	Transport
☐ Regulation ☐ Buyers ☐ Reputation ☐ Other	☐ Regulation ☐ Buyers ☐ Reputation ☐ Other	☐ Regulation ☐ Buyers ☐ Reputation ☐ Other

7. Do your buyers provide you with benchmarks/goals? Yes No

8. Do your buyers provide you with guidance/technical assistance on how to meet the benchmarks? Yes No

9. Do your buyers expect you to audit compliance? Yes No

10. What sustainability audits do you conduct?

☐ ISO 14001	☐ Bluesign	Other??	

Discussion Questions

- What markets do you sell to? Do the sustainability requirements differ? How?
- Do you supply to a big brand customer?
- How difficult is it to get a global brand as a buyer? What do you have to do? Is sustainability part of this?
- Are you facing increased sustainability demands from your brand buyers? What?
- Of the areas of sustainability management, what are the areas of biggest increasing demands – environment, labour, logistics, other?
- Do your different buyers have different demands? How does this vary?
- How are the environment, labour, transport demands changing? Is this because your markets are shifting?
- We have heard that markets are shifting to the Middle East and that these buyers have less demands – is this true and how does it affect your business?
- Do brand buyers set sustainability compliance benchmark goals? What are they?
- Are brand sustainability requirements more important than their low price requirement? How do you balance the two demands?
- Do brand buyers provide you with guidance on meeting their requirements? What? How could this be improved?
- What much do you pay your workers? Has this changed? How do you keep them happy?
- How are you keeping your costs down in the face of increasing wages?
- Is energy supply an issue? How do you manage this so as not to interrupt production? Do you use a diesel generator? Do you count this in your energy consumption and emissions?
- How do your buyers check on your compliance?
- Are the certification and audit requirements consistent between your buyers? How are they different?

APPENDIX B: INTERVIEWS

CHINA 2012

Date	Name	Position	Company
25-Apr	Lois Li	Sales Department	SG
24-Apr	Pan	Vice Sales Manager	Pet Star Hangzhou Tianyuan Pet Products Factory
24-Apr	Charles Hung	Senior Merchandiser	Lici
24-Apr	Sophie	Sales Representative	Haixing Plastic RubberCo. Ltd.
24-Apr	Alice Qi	Sales Department	Fontal Zhejiang Shengli Plastic Co. Ltd.
25-Apr	Nate Yang	International Trade Department Manager	Haers
25-Apr	Jay Wang	International Trade Department Deputy Director	Haers
25-Apr	Carol Fang		Shuntai
25-Apr	Victor Wang	Sales Manager	Shuntai
25-Apr	Cassie Xiao		Chua Plastic Package, Shanghai Shengmingfang Paper & Plastic Products Co. Ltd.
24-Apr	Nataly Liao	Vice General Manager	Everich
26-Apr	Sue	Export Department Manager	Go Best Zaozhuang Go-Best Crafts & Arts Co, Ltd.
24-Apr	Linda Zhang	International Trade Department Regional Manager	Euro Asia
24-Apr	Lou Huaping	Sales Manager	Rena Pet
26-Apr	Amy Zhang	Overseas Sales Engineer	Sil-Ware
26-Apr	Dong Lan		Green Bamboo
25-Apr	Jason Luo	Sales Manager	Simzo
25-Apr	Christa Kaiser	Global Business Manager	Dupont
24-Apr	Shirley Wu	International Sales Department Manager	Carefor
24-Apr	Macky Lin		Xiamen Nature Caring Products Co. Ltd.
24-Apr	Cathy Wang	Vice General Manager Export Director	Zhejiang Huaxing Group
24-Apr	Qin Ling		Ahtech Group Fujian Hanhe Sanitary Products ltd.
24-Apr	Alina Feng	Product Manager	Shift Electrics
24-Apr	Sophia Yang	General Manager	Sofan Guangdong Seehe Paper Manufacture Co. Ltd.
25-Apr	Branda Xu		Concept Zhejiang Linan Foreign Trade Corp
25-Apr	Raymond Lee	Sales Executive	MoreFond Arts & Crafts Co. Ltd

Date	Name	Position	Company
26-Apr	Claudia Wu	Vice-General Manager	Juka Furnishings
24-Apr	Winter Liu		Shandong Lu Yi Co Ltd. Luyi Wooden Product Co. Ltd.
25-Apr	Lisa	Sales	Ningbo QIFA Imp & Exp Inc.
25-Apr	Kathryn Ho	Sales Representative	Guangzhou HOYI Outdoor Furniture Co. Ltd
25-Apr	Amani Huang	Manager	Shantou Jinai Industry Co. Ltd.
25-Apr	Zalence	Director	Shanghai East Best International Business Development Co. Ltd.
25-Apr	Casper		HK Long
24-Apr	Cathy Qin	Sales Manager	UL
24-Apr	Cici Chen	Assistant General Manager	Sea Global Scm Ltd.
26-Apr	Ladin Chen		Guangdong Orientalship International Logistics Co. Ltd.
26-Apr	Miranda Ling	Sales Executive Hardgoods Laboratory	SGS
25-Apr	Greg Foweraker	Managing Director	Innate
26-Apr	Naresh		Fashion Gex
23-Apr	German Buyer		
24-Apr	Dianna Yu	Managing Director	Guangdong Modern Services Tracking Center (MSTC)
24-Apr	Wang Dian Dian	Asst to the Managing Director	Guangdong Modern Services Tracking Center (MSTC)
24-Apr	Law Yee Ping	Manager	Guangdong Modern Services Tracking Center (MSTC)
26-Apr	Sonia Chen	Project Manager International Marketing Department	GlobalMarket Group
27-Apr	Eng Hui Gan	Exec Facilitator IDH Electronics Program	InFact
27-Apr	Grace Yang	Manager of GZ Rep Office	InFact
27-Apr	David Deng	EHS Specialist	InFact
26-Apr	Cathy Yao	Managing Director	BC International Trade and Investment Office South China
26-Apr	Tom Wang	Program Assistant	BC International Trade and Investment Office South China
26-Apr	Canton Fair representatives		Canton Fair
27-Apr	Jason Mak	Director	Chun Wo Ho

VANCOUVER 2012

Date	Name	Position	Company
06 Feb	Denise Taschereau	CEO	Fairware
21 Feb	Greg Foweraker	Managing Director	Innate Gear

Date	Name	Position	Company
22 Feb	Mackie Chase	Former Director	UBC Centre for Intercultural Communication
07 March	Claude Comtois	Professor	University of Montreal
29 March	Esther Speck	VP Business Sustainability & Community	Mountain Equipment Coop
29 March, April 12	Greg Foweraker Robyn Gibson, Sandra Tschauner	Managing Director VP of Sales Supply Chain Manager	Innate Gear