

Clean up your Computer

Working conditions in the
electronics sector

A CAFOD report

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Summary

Work is for people,
not people for work:

Laborem Exercens 6,
Pope John Paul II, 1981

They are treated as if they
were ignorant and stupid.
They tell us that they are
treated like animals,
shouted and sworn at,
sometimes even pushed
around. It is a fundamental
right for the worker to be
respected, however lowly
the job they are doing.

Sister Luz Elena Barrios
Calleros, CEREAL, Mexico

Its products may embody the latest in high technology, but labour standards and conditions in computer manufacturing can be appallingly low. Many stages of computer production are carried out by low-skilled, low-paid workers – most of them women – in developing countries. But unlike their counterparts in the clothing and footwear sector, computer companies have thus far escaped scrutiny on labour issues. CAFOD's interviews with electronics workers in Mexico, Thailand and China reveal a story of unsafe factories, compulsory overtime, wages below the legal minimum, and degrading treatment.

Electronics workers in developing countries are rarely employed directly by the big brand name companies. In Guadalajara, Mexico, workers told CAFOD of discriminatory and humiliating recruitment practices by the employment agencies that supply workers for contract manufacturers. The agencies often ask intrusive personal questions at interview to screen out pregnant women and anyone likely to try to organise fellow-workers to ask for better working conditions. Sometimes they even visit the homes of potential employees and talk to their neighbours.

Once recruited, electronics workers in Guadalajara live in constant fear of losing their jobs. Many are employed on consecutive short-term contracts, lasting three months at most. Although some continue working to such contracts for years (a practice banned by Mexican law) this makes it easy for the employment agency to fire them at will. A woman who becomes pregnant is likely to lose her job: the short-term contract means the agency can avoid paying maternity benefit.

Workers who ask for better pay and conditions can be threatened with the sack, or warned that their jobs could disappear to China, where wages are even lower.

It is difficult to gain access to electronics factories in China and to have candid conversations with the workers, but CAFOD has been able to do so through a partner organisation based in Hong Kong.

Electronics workers in the Pearl River Delta are recruited from the massive pool of migrant labour from rural China. Often in debt to an employment agency before they even start their job, their basic wage is often well below the legal minimum. In Dongguan, where most of the research for this report was done, some electronics workers earn a basic monthly wage of US\$37. They can only earn the legal minimum of US\$54 through excessive overtime. In the peak season, they may work up to 15 or 16 hours a day, seven days a week.

Working conditions are often dangerous. In different stages of the production process, workers may be exposed to dangerous chemicals, smoke from soldering, metal dust or noise. Assembly-line workers are expected to stay on their feet for 11 hours a day. Workers who test monitors must spend a similar length of time in front of flashing screens. Yet CAFOD researchers found that in Dongguan many factories have no health and safety department, and fail to provide health and safety training.

The world's biggest personal computer companies face a difficult business environment. To cut costs, they outsource production to contract manufacturers in low-wage countries, pressing them to accept the lowest possible price. The contract manufacturers in turn pass on the pressure to the component manufacturers – and, ultimately, to the workforce.

The big brands demand top-quality products to tight deadlines, and this pressure, too, is passed down the supply chain. It is the worker, not the supervisor, the factory manager or the buyer, who bears responsibility for a production error. The penalties for mistakes are often harsh, or designed to humiliate: in one factory in China, a worker who makes a mistake has to wear a red coat. Elsewhere, workers are fined for production errors.

The search for higher profits at the cheapest possible prices has resulted in the undermining of workers' rights. The big brands' response to this problem is inadequate. They have begun to acknowledge some responsibility to workers in their supply chain, and have taken steps at least to monitor the labour standards of their suppliers. But the individual staff tasked with implementing supply-chain labour standards must battle against the much stronger commercial forces which drive costs, and with them working conditions, into a downward spiral.

One important reason for low labour standards in the computer industry is the absence of effective trade unions. Some host governments, eager to attract foreign investment, discourage effective worker organising and (sometimes through lack of capacity) fail to enforce their own labour legislation. In China, free trade unions are banned and there is rarely any other form of participation in factory decision-making. Most workers are simply unaware of their rights.

But host governments and local employers are not the only ones to blame. The big brands are sometimes also reluctant to accept the essential role of unions in protecting workers' rights. CAFOD's analysis of the codes of conduct of the three market leaders found them to be equivocal on freedom of association.

The achievement of decent working conditions in the electronics sector requires concerted action by all stakeholders: brand companies, suppliers, consumers, host governments and home governments, trade unions, investors and the International Labour Organisation (ILO). Computers have become part of the fabric of the lives of individuals and institutions across the developed world. Everyone shares a responsibility to the workers who make them.

CAFOD calls on:

- **Personal computer companies to adopt and implement codes of conduct based on ILO standards.** Companies should pay particular attention to guaranteeing that the rights of part-time or short-term workers are respected as much as those of full-time and permanent workers.
- **Companies to conduct their core business in such a way that suppliers can implement labour standards,** for example, by negotiating appropriate prices and lead times.
- **The UK government to consider companies' policies and practices in relation to supply-chain labour rights when awarding procurement contracts.**
- **The UK government to support the UN Norms on Business Responsibility,** which include the ILO Core Labour Standards.

If we were ever found talking in a group the supervisors would threaten us with the idea of the plant being closed, "If you don't reach the production targets then all this work will go China," they said.

Lupe, electronics worker, Mexico

In our company anyone who gets pregnant is sacked.

Electronics worker, Thailand

Introduction

For people in the UK, computers are an integral part of everyday life. Many people use them daily at work and at home. Even those who do not operate computers themselves interact with institutions – schools, banks, hospitals, churches, clubs, local and central government departments – that cannot run without them. Computers are used to perform a multitude of everyday tasks: to write letters and reports, to calculate budgets, to communicate with colleagues and friends by e-mail, to find out the latest news on the internet, or to order groceries and clothes, and book holidays. Thirty years ago, it would have been hard to imagine the centrality of computers in everyday life. Now, it is hard to imagine life without them.

Computers are not only ubiquitous; they are also well on the way to becoming disposable. With a constant stream of slimmer, lighter, faster models emerging on to the market, they are no longer a long-term investment for the buyer, as they were ten or even five years ago. But while the number of computers being sold keeps growing, the dollar size of the market is static. In other words, consumers are buying many more computers than they used to, but they are paying much less for them. Dell, the market leader in personal computers (PCs), recently cut the price of its basic PCs by 22 per cent and now sells its cheapest computer for £345.

Nowadays, largely as a result of campaigning by development and human rights organisations, many people make a connection between the clothes they buy and the workers who make them. Consumers have some idea of the long hours of toil and discomfort behind the labels “Made in Bangladesh” or “Made in China”. The working conditions of the people who make computers and their components are not yet so well-known, but they are in many respects similar.

The 138,468,000 personal computers that left the computer factories in 2003¹ were not produced in some Silicon Valley utopia. Much computer manufacturing takes place in developing countries and is done by poor people working in harsh conditions. The purpose of this report is to highlight the plight of the workers who manufacture desktop and laptop PCs and the peripheral devices such as printers, monitors and mice commonly used with them.

Section I of the report discusses the recent history and dynamics of the PC sector and its effect upon workers in the supply chain, focusing on the three biggest brands: Dell, Hewlett Packard and IBM. Section II considers these companies’ policy and practice on the labour rights of workers in the supply chain. Section III examines the working conditions of some of the vast number of workers in developing countries who participate in computer manufacture, focusing on Mexico and China. Section IV proposes an agenda for change.

There are ... plenty of girls with good eyes and strong hands. If we run out of people, we just go deeper into China.

Manager of Chinese electronics factory

Remaining non-union is an essential for survival for most of our companies. If we had the work rules that unionised companies have, we’d all go out of business.

Robert Noyce,
co-founder of Intel

¹ IDC press release, 17 April 2003 <http://www.idc.com>.

I The Personal Computer Supply Chain

What is a personal computer?

The term “personal computer” was first coined in 1975 in an advertising campaign for one of the earliest portable computers, the Altair, and first appeared in print in 1976.¹ A personal computer is digital, automatic, programmable, accessible, relatively small, relatively inexpensive and relatively simple: in short, it consists of the central processing unit (CPU), monitor, keyboard and mouse with which most people today are familiar. The identity of the first personal computer is debated,² but the prevalence of personal computers in everyday life is incontrovertible.

Figure 1. The personal computer



The availability of cheap personal computers has undoubtedly had positive effects. First, it has provided hundreds of thousands of jobs around the world. Second, easy access to computers in the North has provided various social goods, including better communication between communities, educational opportunities and increased efficiency.

Big brands, big profits

Multinational personal computer companies are some of the biggest and most successful in the world. The largest computer companies are American and Japanese, and three US companies have the largest share of the PC market: Dell, with 17.6 per cent, Hewlett Packard, with 16.1 per cent, and IBM, which has just under 7 per cent.³ These companies are “original equipment manufacturers” (OEMs): companies that build their own products from components which are largely bought from other manufacturers.

After years of heady and seemingly unstoppable growth, the PC market experienced a serious downturn in 2001. Recent indicators, however, suggest that a recovery is under way. Global PC shipments during the second quarter of 2003 were up 10 per cent on the previous year.⁴

Table 1. Number of PCs shipped in the first quarter of 2003

Company	Shipments	Percentage of total
Dell	5,989,000	17.3
Hewlett Packard	5,455,000	15.8
IBM	1,870,000	5.4
Fujitsu Siemens	1,658,000	4.8
Toshiba	1,270,000	3.7
Other	18,375,000	53.1
Total	34,617,000	100

IDC Press Release, 17 April 2003 <http://www.idc.com>

IBM⁵

IBM has been selling business machines since the beginning of the 20th century. It kept itself at the forefront of the computer revolution when it targeted the first business computers to a mass market in the 1960s. When it entered the personal computer market in the early 1980s, it soon set the gold standard in PCs and spawned a multitude of clones. After a recent difficult period, IBM turned in profits of US\$1.8 billion for the third quarter of 2003 from revenues of US\$21.5 billion, up from US\$1.3 billion for the same period in 2002.

Hewlett Packard⁶

One of the original Silicon Valley start-ups of the 1950s, Hewlett Packard (HP) completed the largest ever corporate merger in the information technology sector in April 2002, when it joined forces with rival Compaq. Its PC division is currently in the red. It has traditionally positioned itself as a manufacturer of high quality products, so it remains to be seen how HP will compete with Dell's high-volume, low-cost model.

Dell⁷

Incorporated in 1984, Dell became the world's number one seller of PCs in the first quarter of 2003, when it overtook rival Hewlett Packard. The company was started by Michael Dell in his freshman dormitory at the University of Texas in Austin. Dell has reduced its costs by selling directly to the customer, cutting out intermediaries and slashing prices. Michael Dell, still the company's Chief Executive Officer (CEO), is the third highest-paid US CEO and the 24th richest person in the world, with an estimated wealth of US\$16.49 billion.⁸ The company had revenues of US\$31 billion in 2001.⁹

The PC sector: a white-knuckle ride

The computer business is intensely competitive and moves at speed. As one analyst put it, "This industry is like travelling in a car at nearly 200 miles an hour and all you see is out of the back and side windows."¹⁰

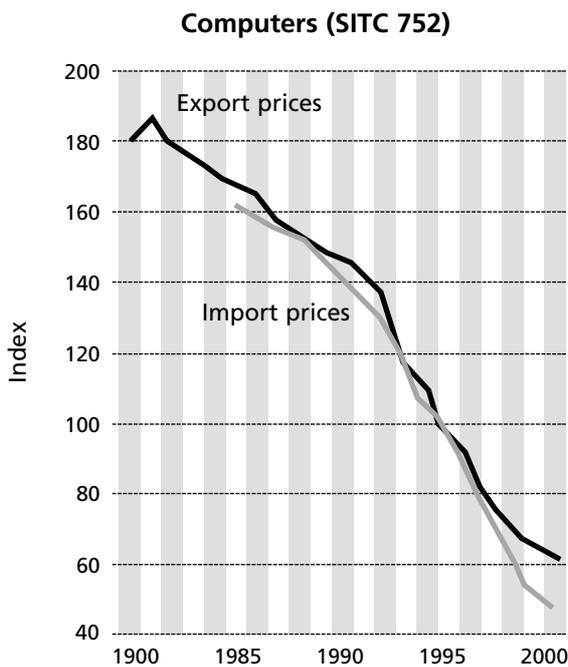
The sector is characterised by:

- falling prices;
- rapid technological change;
- volatility; and
- the absence of trade unions.

Falling prices

The price of computers has fallen dramatically in the past 20 years. From 1976 to 1999, the price of a PC fell by an average 27 per cent a year, and the rate of decrease accelerated throughout the 1990s.¹¹ Recently, prices were pushed even lower by the success of Dell's low-cost business model and aggressive price-cutting: Dell recently slashed the price of its cheapest PC by 22 per cent. Dell's innovation has been to sell directly to the customer, largely through the internet. This eliminates the intermediaries – computer dealers – and their associated costs, and the cheaper prices are passed on to the customer. All the major companies operate an efficient “just in time” inventory system, keeping only a few days' supplies of components in their warehouses. This has allowed them to cut prices.

Figure 2. United States Import and Export Price Indices for Computers, 1980-2000 (Index numbers, 1995 = 100)



UNCTAD (2002) Trade and Development Report 2002, Geneva: UNCTAD

Technological change

The pace of technological change in the computer sector is hectic: the capacity of chips doubles every 18 to 24 months¹² and computer processing power has increased by a factor of 100 over the past decade.¹³ One author estimates that the technological capacity of computers has grown faster than any other technology in history.¹⁴ Competition between the multinational corporations (MNCs) focuses on the technological advantages they can offer customers, and product life cycles are short. Consumers will buy only the latest technology and last year's (and often last month's) innovations sit abandoned on the shop floor. Computer systems also change quickly: old computers cannot run new programmes. This technological dynamism places tremendous pressure on companies to develop, produce and sell new technology quickly, and to compete in providing customer support.

Volatility

Fast turnover of technology and fluctuating market demand create enormous instability in the computer supply chain. Frequent crashes in demand for a product cause companies to lurch between periods of overproduction and surplus capacity.¹⁵ Dell hit a crisis in 1989 when chip capacity went from 256K to 1Mb practically overnight and the company was left with millions of dollars' worth of unsaleable stock.¹⁶ As one Dell executive commented: “Inventory has the shelf life of lettuce.”¹⁷

The absence of trade unions

CAFOD's research clearly demonstrates the damaging effect that the absence of effective, representative, democratic trade unions has on workers in the electronics sector. Lack of unions is a general characteristic of the sector.¹⁸ In the US, the electronics industry has historically been one of the least organised. The words of Robert Noyce, co-founder of Intel, epitomise the industry's attitude to trade unions:

“Remaining non-union is an essential for survival for most of our companies. If we had the work rules that unionised companies have, we'd all go out of business. This is a very high priority for management here. We have to retain flexibility in operating our companies. The great hope for our nation is to avoid those deep, deep divisions between workers and management which can paralyse action.”¹⁹

Electronics workers are not represented effectively by unions in either the Mexican or the Chinese electronics industry. In the Malaysian electronics sector, the government allows certain investors to keep conditions in collective bargaining agreements to a minimum, and it has never allowed the creation of a national union in the sector.²⁰

Outsourcing

Because falling prices, volatility and the demands of research and development drive down revenues, companies look to their supply chains to provide the savings that allow them to stay profitable. Computer multinationals exert enormous pressure on their suppliers, in order to reduce the costs of making computers.

Until the 1990s, major computer companies manufactured most of their product “in house”: the factories in which the computers were assembled were IBM or Hewlett Packard factories, for example, and the workers on the production lines were employees of those companies. Increasingly, however, companies outsource much of the manufacturing process: that is, they buy parts or services from external suppliers. Dell, whilst retaining some US facilities, has done this from early on in its history, and that is one factor behind the company's success. One estimate put the percentage of industry-wide production that will be outsourced by 2004 at 73 per cent.²¹ Many OEMs now outsource the majority of computer design and manufacturing. The big brands themselves retain some manufacturing function, but concentrate on what they have come to see as their core competencies: research and development, marketing, sales, customer services and brand management.

Outsourcing has two major benefits for the computer multinationals:

- *Lower costs.* OEMs reduce capital investment in production sites, and with it the risk of losing money should the site cease to be viable. Outsourcing is particularly good value when external companies have specialised skills and expertise. The money saved can be applied elsewhere to increase profit, in marketing and advertising for example. Outsourcing to developing countries also reduces wage bills.
- *Higher flexibility.* OEMs can respond more quickly to market demands and slumps when they are not tied to production sites through property ownership and permanent staff contracts. If demand grows, they can commission a new production line; if demand slumps, they can simply close the line. Micromanagement of supply also reduces costly storage of large quantities of products. This flexibility is crucial, given the fluctuating demand and technological pace of the sector. It also allows for fast relocation. If wages in one country rise, outsourcing makes it easier to move somewhere cheaper.

Outsourcing and developing countries

IBM, Hewlett Packard and Dell outsource much of their manufacturing outside the United States, and particularly in developing countries. Electronics was one of the first industries in which stages of the production process were diffused to developing countries. This was facilitated by the commoditisation of computer production: the computer's component parts can be traded like commodities, because they are increasingly standardised, easily replicable and cheap. Commoditisation allows components to be manufactured at different locations, making it easy to outsource production.

The electronics sector has been in the vanguard of the globalisation of production processes and is now "the most globalised of all industries".²² More than one-third of all electronics exports now come from developing countries. According to the UN Conference on Trade and Development (UNCTAD), electronics are the fastest growing of all developing country exports.²³ Between 1980 and 1998, the share of electronic products in developing country exports increased fourfold, from 5.3 per cent to 22 per cent.²⁴ Confounding popular preconceptions, high-technology exports are now the largest foreign exchange earners for the developing world – worth \$450 billion in 2000.²⁵ Electronics exports are worth more than all developing country agricultural exports, and are worth nearly three times more than developing country textile exports.²⁶

This process started during the 1980s when Japanese companies, faced with appreciation of the yen and increased labour costs at home, moved production to Taiwan and Singapore. US companies followed suit and developed partnerships with Asian-based suppliers. The past two decades have seen this process increase in speed and volume. Japanese, US, Singaporean and Taiwanese companies have moved parts of their production process to lower-cost countries such as the Philippines, Malaysia and Thailand. Since then even lower-cost countries (notably China) have emerged, precipitating another wave of relocation.

Outsourcing has had a major effect upon a large cluster of developing countries in East Asia and a smaller number in Central and Latin America. Malaysia's economy used to rely on palm oil and tin; now, 53 per cent of its export earnings come from electronics equipment.²⁷ South Korea's main exports in the early 1960s were textiles, plywood and wigs made of human hair; by 2001, electronics dominated its exports.²⁸ Costa Rica's main exports, once bananas and coffee, are computers and computer parts which constitute 35 per cent of its exports.²⁹ Electronics equipment was worth 13 per cent of Indonesia's total exports, 26 per cent of Thailand's and a huge 63 per cent of Philippine exports in 2000.³⁰ Computers and computer parts were worth 20 per cent of Taiwan's exports. Semi-conductors and computers made up more than 50 per cent of Singapore's exports in 2000.³¹ Electronics exports are now the largest segment of Mexico's export trade.³²

Outsourcing is not, however, always beneficial for developing country economies. Some, notably the mature Asian tigers (Singapore, South Korea and Taiwan) have been able, by a combination of historical factors and industrial policy, to use export booms to upgrade facilities, increase competitiveness and achieve sustained growth. Others, however, have been less successful. Many of the skills embodied in electronics exports are produced in technologically advanced developed countries, while developing countries engage mainly in the low-skill, low value-added assembly stages of the global production chain. Expansion of exports has not been accompanied by increases in value added and income earned in developing countries. Much of the value added contained in these products accrues to foreign owners of capital, knowledge and management. The benefit developing countries derive from entering such a market can decline when other, cheaper countries enter the market.³³

The process of outsourcing goes hand in hand with relocation to low wage economies.³⁴ Wage rates have provided powerful incentives for companies looking for a "lower cost footprint" and a competitive advantage. A leading outsourced manufacturer, Flextronics, estimates that it can save its clients 75 per cent of the costs of labour.³⁵ The OEMs themselves do not usually recruit labour, and rarely use employment agencies to recruit labour.

Table 2. Chinese Manufacturing Wages in Comparison with Selected Economies, 1998 (Based on Ratio to Chinese Level)

	Wages
United States	47.8
Japan	29.9
Singapore	23.4
Taiwan	20.6
South Korea	12.9
Mexico	7.8
Malaysia	5.2
Philippines (1997)	4.1
Indonesia (1996)	2.2
India	1.5
China	1

Adapted from UNCTAD (2002) Trade and Development Report 2002, Geneva: UNCTAD

Outsourcing to contract manufacturers

Big computer brands have been supplanted in the production process by a new breed of “contract manufacturers”. These companies, for example Solectron, Flextronics, Samina-SCI and Celestica are invisible and anonymous to UK consumers but they are very large and powerful. Contract manufacturers have grown at phenomenal rates, averaging 20–25 per cent a year during the 1990s.³⁶ Barely existing at the beginning of the 1990s, the four largest contract manufacturers each had revenues of more than US\$10 billion by 2002.³⁷

Contract suppliers manufacture for many buyers. They aim to secure the cheapest labour and supplies, and to maximise economies of scale and efficiencies. Starting as little more than cheap assembly lines, they have gradually taken on a wider range of productive functions and responsibilities, including design, engineering and procurement. Many of them have also taken over the factories of the major brand names, buying them directly from their previous owners. Contract manufacturers have become global players – expanding global reach, and moving en masse to low-cost production bases in developing countries. China already hosts the largest number of contract manufacturing plants in the world.³⁸

Flextronics: a contract manufacturer

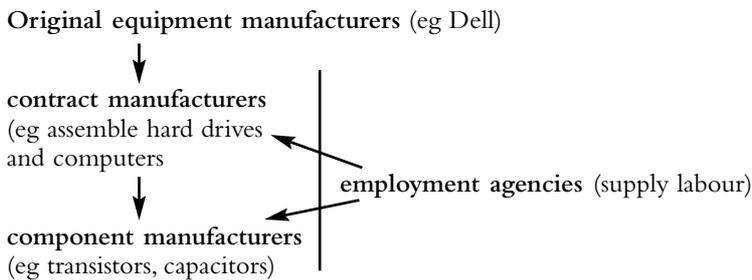
Flextronics started by “board stuffing” circuit boards in Silicon Valley during the 1980s and is now the second largest contract manufacturer in the world, with revenues of US\$13.2 billion in 2002.

Incorporated in Singapore with its management offices in San José, California, Flextronics has factories worldwide. Its industrial parks, which house suppliers on-site, are concentrated in Brazil, China, Hungary, and Mexico. Workers earn from 70 US cents an hour in China to US\$4.50 in Brazil.³⁹

Flextronics has 15 locations in China alone⁴⁰ and exported half a billion US dollars’ worth of goods from there in 2000.⁴¹ Its Chinese workforce has grown from 500 to 28,000 in five years.⁴² According to Flextronics Asia-Pacific President Ash Bharwaj, “Our low cost footprint is better than anyone else in the region.”⁴³

Contract manufacturers employ huge numbers of workers. Often, however, they employ very few workers directly, preferring to source the majority of recruitment out to employment agencies. Again, the reason for outsourcing employment is to cut costs.

Figure 3. Personal computer production process



Component manufacturers

The third layer of the computer supply chain is made up of the manufacturers of components such as resistors, inductors and capacitors. Most of these companies are based in Asia. For example, one Taiwanese company, which manufactures in China, is the biggest producer of microchip resistors in the world, with a production capacity of 18 billion resistors a month, accounting for 16 per cent of the world market.⁴⁴ Component manufacturers also use employment agencies to deal with recruitment.

Squeezing the supply chain

Cutting costs in the supply chain is of great importance to big computer companies. It is a successful strategy: one report estimated that computer component prices were falling by one per cent a week in 2002.⁴⁶

Dell has achieved massive cost-cutting in its supply chain. According to the company's website, "Dell's goal was to squeeze 60% out of its procurement cycle and costs, but process savings were only part of the attraction ... The savings from supplier consolidation could be worth ten times the process improvements".⁴⁷ The cost-cutting culture is illustrated in an account in the Wall Street Journal Online:

"[Michael Dell] once chastised a supplier for bringing cinnamon rolls to a meeting with Dell employees. "Michael walked in and said, 'Take those back and let's knock the price off the next shipment of materials you bring in' recalls Jim Cano, a now retired Dell manufacturing executive who attended the meeting. 'We don't need food. We want a better price.'"⁴⁸

Dell has not been alone in cutting costs. Hewlett Packard, as part of its post-merger strategy, has slashed supply-chain costs to the tune of US\$3.5 billion. The company has saved an estimated US\$500 million on procurement costs and cut manufacturing costs by 17 per cent.⁴⁹ The company is looking to save a further US\$1 billion annually from supply-chain costs. According to HP's former supply-chain chief Mike Winkler, the challenge of ensuring that the company performs well once growth in the technology sector resumes is one that Jeff Clarke, Head of Hewlett Packard's supply chain, "relishes ... HP's suppliers have good reason to fear. Jeff is like a bulldog on a bone. If he takes it, there's no way he's letting go."⁵⁰ IBM reports that in 2002 alone it managed to cut about US\$5 billion from its supply chain through a range of initiatives, including outsourcing deals.⁵¹

"Our job is to be absolutely the best in the world at driving costs down."

Michael Dell, October 2002⁴⁵

The human cost

The story of the cinnamon rolls is told in the financial press to illustrate the toughness and acumen of Michael Dell; and undoubtedly it indicates the talents that have made Dell the hugely successful company it is today. But the consequences of tough negotiation with suppliers extend beyond depriving top executives of mid-morning snacks. Further down the supply chain, the effects of relentless cost-cutting are felt far more acutely by the workers, whose low wages leave them on the edge of subsistence.

Notes

- ¹ In the May 1976 edition of *Byte* magazine. Information from *Chronology of Personal Computers*, <http://www.islandnet.com/~kpolsson/comphist.comp1976.htm>.
- ² Candidates include *Simon*, by Edmund Berkeley of which over 400 plans had been sold by 1959; the *Geniac* also designed by Berkeley in 1955; Honeywell's 1966 *Kitchen Computer*; the Xerox *Alto* (1973); and the IBM 5100 (1975).
- ³ <http://news.bbc.co.uk/1/hi/business/3169713.stm>, 22 August 2003.
- ⁴ *Ibid.*
- ⁵ *International Directory of Company Histories*, St James Press, 2000.
- ⁶ *Ibid.*
- ⁷ *Ibid.*
- ⁸ Forbes.com
- ⁹ FT.com 17 January 2003.
- ¹⁰ *Financial Times* 11 June 2003, quoting Bill Mclean at IC Insights, a semi-conductor market research group.
- ¹¹ Berndt, Ernst R, Ellen R Dulberger and Neal J Rappaport, *Price and Quality of Desktop and Mobile Personal Computers: A Quarter Century of History*. This figure is based on quality-adjusted PC prices, which have fallen by a factor of about 1,600 for desktop models. Price decreases were larger in the 1990s than in the 1970s and 1980s and were larger in the late 1990s than in the early 1990s.
- ¹² UNDP (2001) *Human Development Report 2001: Making New Technologies work for Human Development*, New York: UNDP.
- ¹³ IMF (2001) *World Economic Outlook 2001*, Washington: IMF, citing *Moore's Law*, coined by the Geoffrey Moore, Chairman of Intel.
- ¹⁴ Castels, M (2000) *Information Technology and Global Capitalism*; in Hutton and Giddens (eds) *On the Edge*, London: Jonathan Cape.
- ¹⁵ Lüthje, Boy and Martina Sproll, *Electronics Contract Manufacturing: Networks of Transnational Mass Production in Eastern Europe*, submitted for publication in SOFI/WZB volume for an international conference on Eastern Europe, 29 November 2001, Berlin.
- ¹⁶ Dell, Michael, with Catherine Fredman (1999) *Direct from Dell: Strategies that Revolutionized an Industry*, Harper Collins Business.
- ¹⁷ Dell, Michael, with Catherine Fredman (1999) *Direct from Dell: Strategies that Revolutionized an Industry*, Harper Collins Business.
- ¹⁸ Robert Steiert, Director, Information and Communication Technology Sector, International Metalworkers' Federation, comments: ... the experience is that the computer industry shows a much lower unionisation rate than for instance the 'old' industries like auto, steel, shipyards etc. ... In addition, ... the unionisation of computer companies mainly concentrates on the states of 'old Europe' ... and to a certain extent also Japan but not the United States where the unionisation rate of companies of the New Economy tends towards zero....
- ¹⁹ Eisenscher (1993) citing Rogers and Larsen (1984) *Silicon Valley Fever: Growth of High Technology Culture*, New York: Basic Books.
- ²⁰ *Lawyers Committee for Human Rights Report on Workers' Rights in Kenya and Malaysia*, http://www.lchr.org/workers_rights/wr_se_asia/wr_malaysia.htm
- ²¹ *Electronics Manufacturing Outsourcing and Supply Chain*, Quarterly Forum of the Electronics Industry Market Research and Knowledge Network available on http://www.electronics.ca/reports/electronics_manufacturing/forum.html, accessed 20 December 2001.
- ²² UNCTAD (2002) *Trade and Development Report 2002*, Geneva: UNCTAD.
- ²³ *Ibid.*
- ²⁴ *Ibid.*
- ²⁵ UNCTAD (2002) *World Investment Report 2002*, Geneva: UNCTAD.
- ²⁶ Lall, Sanjaya (2000) *The Technological Structure and Performance of Developing Country Manufactured Exports, 1985-1998*, in *Oxford Development Studies* 28 (3) June 2000.
- ²⁷ *The Economist* 29 March 2001.
- ²⁸ Moo-Young Han (2000) *Annotated Chronology of Korea's Science and Technology*; *Korean American Forum*, Article 3, 19 January 2000.

- ²⁹ Based on figures from UNCTAD (2002) *Handbook of Statistics 2002*, Geneva: UNCTAD.
- ³⁰ *The Economist* 29 March 2001.
- ³¹ Based on figures from UNCTAD (2002) *Handbook of Statistics 2002*, Geneva: UNCTAD.
- ³² The website of the Mexican Embassy in the UK.
- ³³ <http://infomine.ucr.edu>.
- ³⁴ Wage costs are not the sole determinant of location for computer manufacture. The following factors are also taken into account by companies deciding where to outsource: the skill of the workforce – where a product's manufacture requires high levels of technological knowledge it will be located where labour is sufficiently skilled; the infrastructure of a country, including transport, power supplies and communications facilities; the political and economic stability of the country; incentives provided by the government, such as tax or duty concessions; a country's distance from important markets or key nodes in the company's supply chain; and access to key markets – companies will locate to countries that have preferential access to large western markets; and the availability of parts, components or materials.
- ³⁵ The Making of the Xbox, *Wired Magazine*, November 2001, www.wired.com.
- ³⁶ Lüthje, Boy and Martina Sproll, Electronics Contract Manufacturing Networks of Transnational Mass Production in Eastern Europe, submitted for publication in SOFI/WZB volume for an international conference on Eastern Europe, 29 November 2001, Berlin.
- ³⁷ UNCTAD (2002) *World Investment Report, Transnational Corporations and Export Competitiveness 2002*, Geneva: UNCTAD 2002.
- ³⁸ Lüthje, Boy and Martina Sproll, :Electronics Contract Manufacturing: Networks of Transnational Mass Production in Eastern Europe:, submitted for publication in SOFI/WZB volume for an international conference on Eastern Europe, 29 November 2001, Berlin.
- ³⁹ The Making of the Xbox, *Wired Magazine*, November 2001.
- ⁴⁰ www.flextronics.com.
- ⁴¹ Based on figures from UNCTAD World Investment Report 2002
- ⁴² FT.com 23 January 2003.
- ⁴³ Quoted in *The Straits Times* 9 April 2002.
- ⁴⁴ CAFOD background research conducted by the Hong Kong Christian Industrial Committee.
- ⁴⁵ Speaking at the Gartner Symposium Itxpo, 10 October 2002.
- ⁴⁶ BizAsia.com 28 February 2003.
- ⁴⁷ Dell Streamlines Indirect Procurement with Ariba Buyer <http://www.dell.com/downloads/global/casestudies/ariba.pdf>, accessed 6 November 2003.
- ⁴⁸ *The Wall Street Journal Online*, 7 June 2001.
- ⁴⁹ *Financial Times* 26 and 27 May 2003.
- ⁵⁰ *Financial Post*, Canada, 26 May 2003.
- ⁵¹ *Financial Times*, 8 January 2003.

II The Computer Companies and Labour Standards

Labour rights

Labour rights are human rights derived from the Universal Declaration of Human Rights. All workers are entitled to have their labour rights upheld. The international community has given responsibility for setting labour standards to the International Labour Organisation (ILO), a UN specialised agency. The ILO has a tripartite structure of governments, employers and workers' representatives, as well as technical expertise in all matters relating to the world of work. For these reasons, the ILO is the authoritative and legitimate source of international labour standards.

Labour standards are contained in over 180 ILO Conventions. None has been ratified by all countries and only a few have been ratified by many. However, four standards are binding, notwithstanding the failure of governments to implement them.¹ They are identified as Core Labour Standards in the ILO Declaration on Fundamental Principles and Rights at Work:

- freedom of association and the effective recognition of the right to collective bargaining;
- the elimination of all forms of forced or compulsory labour;
- the effective abolition of child labour;
- the elimination of discrimination in all forms of employment and cooperation.

Many companies, as well as trade unions and non-governmental organisations (NGOs) also recognise other labour standards as key to decent conditions for workers. These include measures to address health and safety; the payment of a living wage; regular employment; and the outlawing of excessive working hours and harsh or inhumane treatment.

PC manufacturers bear a responsibility for promoting labour standards for workers in their supply chain. However, the experiences of workers in the electronics sectors, as well as the manufacturers' current policy and practice, suggest that these companies are not yet taking their responsibilities seriously enough. According to one organisation which works closely with major companies on labour standards, the big brands are complacent on this issue. They believe that "because factories are clean, they don't have to worry about labour standards."² A non-profit monitoring organisation commented:

"The situation in garments and footwear is still nowhere near perfect, but there is certainly attention being paid to the issues. The truth is that the electronics sector is guilty of the same types of abuses, but labour practices in the industry have not been put under close scrutiny the way the garments and footwear sector have been."³

Many companies find that there is a business case for improving supply-chain labour standards, because better working conditions reduce the risk of operating in some countries. The increasing interest of the financial press in working conditions in the electronics sector supports the need for companies to recognise the business significance of labour rights.

Codes of conduct compared

Table 3 measures the codes of conduct of Dell, Hewlett Packard and IBM against the standards included in the Base Code of the Ethical Trading Initiative (ETI), a UK tripartite organisation of companies, NGOs and unions of which CAFOD is a member.⁴ The information in the table is as stated by the companies themselves.

Workers have rights which Catholic teaching has consistently maintained are superior to the rights of capital. These include the right to decent work, to just wages, to security of employment, to adequate rest and holidays, to limitation of hours of work, to health and safety protection, to non-discrimination, to form and join trade unions, and, as a last resort, to go on strike.

The Common Good, Bishops' Conference of England and Wales, 1996

Table 3. Codes of conduct

	Dell⁵	Hewlett Packard⁶	IBM⁷
Freely chosen employment⁸	Entities [that Dell works with] must not use forced or indentured labor or use raw materials or finished goods produced by forced or indentured labor.	Suppliers are expected to ensure no forced, bonded or involuntary prison labor is used in the production of HP products and services and that the overall terms of employment are voluntary. Suppliers are expected to ensure that overtime is voluntary.	[No specific provision]
Freedom of association and the right to collective bargaining are respected⁹	[No specific provision]	Suppliers are expected to respect the rights of workers to organize in labor unions in accordance with local laws and established practices.	[No specific provision]
Working conditions are safe and hygienic¹⁰	<p>We have a responsibility to treat with care ... the people on whom we depend. Dell is committed to preserving the health and safety of our employees, contractors and others working in Dell facilities. We will conduct our business with integrity and dedicated observance of the occupational health and safety laws and regulations of the locations where we operate. We will continuously improve our health and occupational health and safety systems and procedures so that they meet or exceed industry standards and local regulations. It is Dell's hope and belief that no one should ever be injured while working for Dell.</p> <p>Entities must demonstrate a commitment to the health and safety of their employees.</p>	Suppliers are expected to provide a safe and healthy working environment for their workers in accordance with laws and regulations worldwide, specifically in the areas of employee OHS [Operational Health and Safety] training, occupational injury and illness reporting and management, machine safeguarding, industrial hygiene and workplace ergonomics.	<p>IBM strives to maintain a healthy, safe and productive work environment.</p> <p>[Does not apply explicitly to suppliers]</p>
Child labour shall not be used¹¹	[No specific provision]	Suppliers are expected to comply with local minimum working age laws and requirements and not to employ child labor.	[No specific provision]

	Dell	Hewlett Packard	IBM
Living wages are paid¹²	We avoid working with entities that do not adhere to laws regulating wages	Suppliers are expected to provide wages and benefits that meet or exceed local requirements.	[No specific provision]
Working hours are not excessive¹³	We avoid working with entities that do not adhere to laws regulating ... hours	Suppliers are expected not to require workers to work more than the maximum hours of daily labor set by local laws and to ensure that overtime is paid in accordance with local laws and regulations.	[No specific provision]
No discrimination is practised¹⁴	<p>Dell values the diversity of its workforce. Dell's approach to diversity is defined by inclusiveness, respect and fostering a culture that allows each individual to contribute to his or her fullest potential.</p> <p>[Does not apply explicitly to suppliers]</p>	Suppliers are expected to prohibit discrimination on the basis of race, color, age, gender, sexual orientation, ethnicity, religion, disability, union membership or political affiliation.	<p>IBM strives to maintain a work environment which is free from discrimination or harassment based on race, color, religion, sex, sexual orientation, age, national origin, disability, or other factors that are unrelated to IBM's legitimate business interests.</p> <p>In September [2003] we introduced a specific non-discrimination clause in our supplier contract base agreements which states that suppliers should not discriminate against any employees, applicants for employment or any entity engaged in its procurement practices, on the grounds of race, colour, religion, sex, age, national origin or any other legally protected status.</p>
Regular employment is provided¹⁵	[No specific provision]	[No specific provision]	[No specific provision]
No harsh or inhumane treatment is allowed	[No specific provision]	Suppliers are expected to prohibit physical abuse, harassment or the threat of either.	[No specific provision]

	Dell	Hewlett Packard	IBM
General statements	General commitment in Code of Conduct to working with socially responsible entities that comply with all applicable laws and regulations where they conduct their business, embrace high standards of ethical behaviour and treat their employees fairly with dignity and respect. Dell avoids working with entities that do not adhere to laws regulating wages, hours and working conditions.	General expectation that all suppliers involved in manufacturing HP's products, parts or components must comply with labour, health, safety and environmental practices. The code applies to primary and secondary suppliers.	

Table 4 compares the strategies of the three companies for implementing their commitments to decent working conditions in the supply chain. Again, the information is as stated by the companies.

Table 4. Implementation of codes of conduct

	Dell	Hewlett Packard	IBM
Integration of labour standards into procurement practices	Dell's approach is to make our suppliers' compliance in this area a fundamental requirement of doing business with Dell.	The Supply Chain Social and Environmental Responsibility Program has been integrated into procurement management structure. The Procurement Council reports to the Supply Chain Council and has redesigned supplier management criteria to include SER [social and environmental responsibility] performance. This more closely ties HP's social and environmental expectations with purchasing practices. HP's supplier labor and health and safety guidelines are a formal part of our procurement policy. Supply Chain and Procurement Commodity Managers deal directly with suppliers and communicate our SER requirements. Preference is shown to suppliers who meet or exceed the expectations stated in the Code.	IBM takes into account many facts when making a supplier sourcing decision. Elements considered range from technical, economic, quality and delivery attributes

	Dell	Hewlett Packard	IBM
Supplier contracts	Dell will require that all its suppliers comply with applicable laws in fulfilling their contractual obligations with Dell.	Supply Chain and Procurement Commodity Managers communicate our SER requirements to suppliers and introduce clauses to contracts and complete supplier agreements. HP evaluates and drives supplier performance through the use of contract language in the Purchase Order Terms and Conditions and Product Purchase Agreements.	In our contracts with suppliers we require them to comply with all applicable laws and regulations ... including labor practices
Monitoring	<p>Dell actively solicits information about non-compliance and ethics violations in a confidential manner through our business conduct and ethics programs. We have hotlines for the confidential reporting of ethics and Code of Conduct violations available to employees around the world.</p> <p>[The above relates to employees not suppliers]</p> <p>The Worldwide Procurement Team has established Environmental, Health and Safety goals¹⁶ for our global suppliers which they must achieve by 31 January 2004 or submit a schedule for achieving certification and obtain Dell approval.</p> <p>The certification programs also require management systems to monitor and manage progress on the company's environmental and health and safety goals. Dell and Dell supplier environmental and health and safety metrics are incorporated into quarterly manufacturing operations reviews with Dell's senior management.</p> <p>Dell suppliers are expected to comply with and also utilise suppliers who comply</p>	<p>The suppliers must also annually complete a fairly detailed set of supplier assessments covering environmental, occupational health and safety and labour practices; participate in a formal supplier review process and report to HP on an annual basis. HP's centralised Supply Chain Social and Environmental Responsibility Group reviews the completed assessments and provides detailed feedback and recommendations on the suppliers' inputs.</p> <p>HP's Commodity Managers are responsible for working with the suppliers on improvement plans that get embedded in a formal Supplier Management Process. We use a High Performance Supplier Scorecard to rate the suppliers' practices and responsiveness with social and environmental issues rating highly as part of Business Fundamentals – one of five major categories the supplier is rated on.</p> <p>HP has begun the process of identifying high risk geographies and manufacturing facilities based on chemical and labor intensive processes and will be conducting</p>	<p>We are in the process of developing and implementing a new process to assess our core suppliers with regard to their policies, programs and performance in the areas of labor practices, occupational health, and workplace safety. The objective of the evaluation is to help IBM assess its suppliers' practices that are necessary to meet all applicable laws and regulations and that they operate in a socially responsible manner.</p>

Dell

with the following minimum standards: comply with applicable legal maximum working hours; comply with local minimum wage laws; comply with local minimum working age laws; demonstrate a commitment to the health and safety of employees both in working conditions and housing supplied if applicable and not to utilise forced or indentured labour or raw materials or finished goods produced by forced labour.

Approximately 140 Dell suppliers are currently being assessed for ISO [International Standard] 14001 and OHSAS [Occupational Health and Safety Assessment Series] 18001. At 2004 Global Supplier Conference, Dell will announce the next steps suppliers must take to be compliant in this area.

Hewlett Packard

on-site audits. Specifically for the next year the suppliers that completed assessments and have been reviewed can expect to be audited by trained auditors. It is HP's ultimate goal to manage supplier relationships responsibly and embed the proper systems, processes and tools into our supply chain organisation.

IBM

Person responsible for supply-chain labour standards	Chief Procurement Officer who sits on the Executive Committee and reports to the CEO/President.	Senior Vice President, Global Operations Supply Chain and Chair of the Supply Chain Council. The Supply Chain Council reports to HP's Executive Council.	Chief Procurement Officer reports to Senior Vice President, integrated supply chain.
Dealing with labour abuses in the supply chain	Dell's purchasing, product development and quality engineering organizations make on-site visits to Dell's suppliers and many of our supplier's suppliers regularly. We have trained these representatives globally on Dell's requirements in this area. We have instructed these individuals to report any potential violation to their management, our Business Conduct office and/or the office of general counsel as the individual reporting a potential violation	Where specific allegations may occur, HP will investigate quickly and thoroughly and use 3rd party auditors as appropriate. HP is also dedicated to investigating questionable practices rapidly and taking corrective actions where necessary and appropriate. HP has a formal corrective action process that has several checks and balances built into it. HP will take action including termination with chronic violators.	So far IBM has not had any reports of problems with supplier working conditions. However, if it did, they would be handled expeditiously via the supplier management teams within IBM. These teams report to the procurement executive team and ultimately to the Chief Procurement Officer. Thus any such issue would get visibility and resolution.

Dell

deems appropriate.

We would immediately raise the underlying facts of what Dell perceives as a violation of our standards to a supplier's executive management and as required any legal authority. Dell's executive management would then determine whether the supplier would be given a brief period of time to correct the improper situation and demonstrate its ability to prevent reoccurrence or whether the violation would lead to an immediate termination of the supplier's partnership with Dell.

Hewlett Packard

We are committed to working collaboratively with our suppliers to find solutions and encourage improvements.

IBM

Codes of conduct and supply-chain labour standards

- Hewlett Packard(HP)'s code is superior in several respects to those of Dell and IBM. First, HP's code is specifically aimed at suppliers, while Dell and IBM build provisions on suppliers into the company's general business code. This makes it more difficult to discern their commitment to improving labour standards in the supply chain. Second, HP's code is clearly based on Core Labour Standards and other ILO standards. According to HP, it was created after benchmarking a wide range of other codes, including the ETI Base Code. The standards of Dell and IBM are generally not based on ILO standards.¹⁷ For example, HP's code has specific provisions on freedom of association, child labour, and harsh or inhumane treatment. The other two codes do not.
- In some respects, Dell's code is superior to IBM's Business Conduct Guidelines in relation to supply-chain labour standards. For example, Dell's code has a specific provision on forced labour, and on avoiding collaboration with entities that break laws regulating wages or working hours. The IBM Guidelines have no parallel provisions.
- The codes of all three companies, including Hewlett Packard, are deficient. First, with a few exceptions, the codes emphasise compliance with local law rather than adherence to international labour standards. While local law is crucial, it is often not implemented properly – as, for example, with overtime regulations in China.¹⁸ In those circumstances, codes can be a crucial means to inform workers about their rights and thus help them to enforce those rights. Companies should ensure that they promote workers' rights by enshrining them in their own code of conduct. Second, none of the codes provides unequivocally for freedom of association. This is a serious weakness when so many workers in the sector are unable to assert their rights. Third, none of the codes includes a commitment to providing regular employment. This is also a significant omission given that many of the problems suffered by workers in the electronics sector relate to their temporary status.

Implementation of labour standards policy

- Standards of implementation vary widely. Again, however, Hewlett Packard demonstrates a real commitment to improving labour standards in the supply chain, which is present to a lesser extent in the practices of the other two companies. HP has integrated labour standards more fully into its procurement practices; it provides for communication of

ethical expectations to suppliers as well as simply stipulating them in the contract; it has made greater progress in assessing suppliers' labour practices and integrating labour standards into management of relationships with suppliers; and it states specifically that the code applies to secondary suppliers.

- Both Dell and IBM have introduced programmes to monitor supply-chain labour standards, indicating increasing commitment by both companies to this issue. Dell's monitoring programme is somewhat more advanced than that of IBM at present. Dell has commented to CAFOD that: "We recognize that assessing adherence to our standards in our supply chain is a complex and often difficult task given the size and global reach of our business. It is not something that can be completed overnight and, as a result we have approached the challenge in phases.... Today every Dell manufacturing facility, except one, is ISO 14001 certified (our Brazil facility will complete its ISO 14001 and OHSAS certifications in 2004) We have a clear timetable for our global suppliers to achieve important certifications. Beyond that, we will continue to work in the future to enhance standards and compliance processes as appropriate."¹⁹ IBM has stated: "As we have discussed with you previously, we are in the midst of implementing a programme to further assess and monitor the practices of our suppliers in their labour practices, occupational health and safety, security and environmental safety. We have concluded that we need to go further to understand supplier practices and to determine if there are any gaps between what suppliers are doing and what we require of them and to address immediately any gaps we find between those two things."²⁰
- However, there are serious weaknesses in the implementation programmes of all the companies. First, no company expresses a commitment to working transparently with other stakeholders such as unions, local NGOs or any workers' groups to ensure sustainable improvement of working conditions. Second, no company emphasises that, for improvements to be sustainable, workers themselves must take the lead in the improvement process.
- There is no meaningful commitment by companies to incorporate labour standards into core business practices. For example, there is no commitment to paying suppliers a price that will allow them to implement codes of conduct. As a result, ethical trade staff are attempting to raise standards, while the dynamics of the industry are driving prices down and undermining suppliers' ability to establish decent working conditions.
- CAFOD's research as set out in this report shows that in any event, the companies are not meeting the commitments they do make to workers:²¹ companies are often tolerating illegal practices.
- All three companies have welcomed CAFOD's initiative to draw specific problems in supply chains to their attention and have requested further engagement.

In contrast with the reticence of Dell and IBM, in particular, to commit to responsibility for supply-chain labour standards, all three companies pride themselves on being ahead of the curve on environmental issues and other elements of corporate social responsibility. Dell, for example, has prohibited the export of its environmentally sensitive waste to developing countries, and prohibited its primary and secondary recycling suppliers to use this material as landfill.²² Dell, HP and IBM lead the sector in sustainability assessments, because of their activities in bridging the digital divide – making computers accessible to more areas of the community – and in environmental activities such as takeback and recycling.²³ It is to be hoped that they will now bring the expertise they have developed in other non-financial²⁴ issues to the implementation of labour standards.

Notes

¹ The Core Labour Standards have a special status for two reasons. First, the Declaration states that all ILO member states have an obligation, arising out of their membership of the ILO, to respect, promote and realise the Core Labour Standards. Second, the Core Labour Standards are represented in other human rights documents, including the Universal Declaration of Human Rights.

² Rosey Hurst, Director, Impactt Limited, conversation with CAFOD, 2003.

³ Marie Apostol, Verite, Labour Standards Research and Monitoring, conversation with CAFOD, 2003.

⁴ While the ETI Base Code does not bind the companies in question, it is nonetheless a good indicator of the standards to which all companies should be held. It includes the four Core Labour Standards and five others which are commonly found in the codes of companies and multi-stakeholder organisations such as the Fair Labour Association and the Clean Clothes Campaign.

⁵ Dell Code of Conduct,

http://www.dell.com/downloads/global/corporate/vision_national/code_of_conduct.pdf; and correspondence with CAFOD, 20 October 2003, 27 October 2003, 30 October 2003.

⁶ HP Code of Conduct <http://www.hp.com/go/supplierE>; correspondence with CAFOD, 28 October 2003 and 7 November 2003, and conversation with CAFOD, 8 October 2003.

⁷ IBM Business Conduct Guidelines, [http://www-](http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/guide_index.html)

[1.ibm.com/partnerworld/pwhome.nsf/weblook/guide_index.html](http://www-1.ibm.com/partnerworld/pwhome.nsf/weblook/guide_index.html); correspondence with CAFOD, 13 August 2003, 27 October 2003, 30 October 2003, 18 November 2003.

⁸ Core Labour Standard. ILO Conventions 29 and 105, and Recommendation 35.

⁹ Core Labour Standard. ILO Conventions 87, 98, and 135, and Recommendation 143.

¹⁰ ILO Convention 155 and Recommendation 164.

¹¹ Core Labour Standard. ILO Conventions 182 and 138, and Recommendations 190 and 146.

¹² ILO Convention 131.

¹³ ILO Convention 1.

¹⁴ Core Labour Standard. ILO Conventions 100, 111, 159, 175, and 183, and Recommendations 90 and 168.

¹⁵ ILO Convention 122.

¹⁶ ISO 14001 and OHSAS18001/SHA VPP STAR certification. These are international standards for environmental management and health and safety management respectively.

¹⁷ Of the nine standards against which the companies' codes are measured, and in relation to provisions which apply explicitly to suppliers, HP has eight provisions based to some extent on an ILO standard, Dell has four and IBM has none. HP's code was composed after the company looked at codes including the SA8000, the ETI Base Code and BT's Global Standards 18.

¹⁸ See page 31.

¹⁹ Dell letter to CAFOD, 3 November 2003.

²⁰ IBM letter to CAFOD, 14 November 2003.

²¹ See Section III.

²² Dell letter to CAFOD, 3 November 2003.

²³ Innovest Strategic Value Advisers, press release, 8 September 2003.

²⁴ There is a strong business case for doing this: benefits include the avoidance of litigation and greater productivity.

III Working Conditions in PC Supply Chains: Mexico and China

CAFOD and its partners have carried out research in Mexico and China interviewing workers, managers and others associated with the electronics sector, to find out at first hand about working conditions in the computer factories.

Mexico: Passing through



Guadalajara has been dubbed the “Silicon Valley” of Mexico. Its numerous electronics factories make and assemble components for computers, mobile phones, disc drives, printers, CD players, digital cameras, washing machines and dishwashers, among other electronic products. From the mid-1970s US and Japanese companies, including IBM, Hewlett Packard, Dell, Texas Instruments, Xerox and NEC, sourced more and more products in Mexico, attracted by its favourable investment conditions, cheap labour, and – for the US companies – the mere hop across the border to their Texan and Californian science parks. From the mid-1980s to the mid-1990s, exports from the Mexican electronics industry grew from US\$18.251 million to over \$60 billion¹ and in 1996 alone, the industry generated 28,603 jobs.¹ Investment peaked in 1997 and came crashing down when the technology market and demand for electronics products collapsed in 2001. More than 15,000 jobs were lost in the first half of 2001.² Many electronics companies fled Mexico seeking the cheaper wages of China.

The wider impact of the electronics sector upon the Mexican economy has been disappointing. The country’s successful export sector has failed to carry the rest of the economy along with it and Gross Domestic Product (GDP) growth has remained slow, sometimes even contracting. Very little value is added to electronics products in Mexico and linkages with the domestic economy are weak.³ The electronics factories are “*maquilas*” – plants where imported components are assembled for export. In the 1990s 95 per cent of electronics products manufactured in Mexico were exported to the US; and in the same period, 90 per cent of the components used in this manufacturing were imported, and 85 per cent of all components were imported from the US.⁴ Some 45 million Mexicans remain poor and levels of inequality between rich and poor are widening.⁵

“No one knows what is happening to electronics workers. It’s as if the problem didn’t exist. But I have lived through it and I know the truth.”

Monica, electronics worker, Guadalajara, Mexico

The electronics industry in Guadalajara

The relationship between the US brands and the electronics workers of Guadalajara is indirect and complex. Most electronics firms operating in Guadalajara are contract manufacturers, for example SCI, Flextronics, Jabil and Solectron. The big brands hire contract manufacturers to assemble electronics goods. For example, Dell contracted manufacturing to Jabil for several years until 2001; and SCI manufactured Hewlett Packard products. The contract manufacturers, however, do not usually employ many workers directly: they outsource recruitment to employment agencies.

IBM is an exception to the general rule. Uniquely among the major brands, it has had its own manufacturing facility in Guadalajara since 1975, specialising in the assembly of desktop and laptop computers. The company has become one of Mexico's main exporters and the largest in the state of Jalisco. In 1998, 800,000 computers were assembled there. These, combined with the 400,000 manufactured for IBM by the contract manufacturer Acer in Ciudad Juarez, near the US border, represented 55 per cent of the company's total laptop production worldwide. In 2000 its Mexican production represented around 60 per cent of IBM's worldwide laptop output.⁶

Although IBM owns the factory, most manufacturing is contracted out. In the past, the company ran a tendering process, with contract manufacturers bidding for specific manufacturing processes. The winners rented factory space from IBM, which kept its focus in the plant on quality control and coordination. This allowed IBM to respond rapidly to changing needs – for example by closing down an unprofitable production line or shifting production to another product (and often to another contract manufacturer). In 2003, however, IBM announced that it would outsource its entire manufacturing operation in Guadalajara to one contract manufacturer, Sanmina SCI.⁷

IBM pioneered the system of recruitment through employment agencies, which continues with SCI. There are currently around 7,000 workers in the IBM factory, of whom 500 are employed directly by IBM or by SCI – generally managers, supervisors and secretarial staff. The remaining 6,500 are recruited by employment agencies.⁸ The consequence is that the brand manufacturers are shielded from workers' concerns by two intervening layers: the contract manufacturer and the employment agency.

Employment in the electronics sector⁹

Thousands of workers are employed on the assembly lines of the electronics factories of Guadalajara. Pay, although higher than that of workers in factories producing for the domestic market, is low: typically, US\$50–\$100 a week at companies such as IBM and Jabil, and less in some factories. A worker must do excessive overtime to earn close to US\$100. A basket of basic food, rent, transport and clothing for a family of four amounts to about five times the legal minimum wage, and electronics workers typically earn less than half of the cost of that basket. If clothing, education and some discretionary income is added, it amounts to US\$250 a week. Even a week's basic healthy diet costs US\$75 for four people. Also, hours are long. Workers spent far more than the legal maximum number of hours in factories, partly because overtime is compulsory, and partly because low hourly rates mean that they must work excessive hours to earn enough to live.¹⁰

Vulnerable and voiceless

Electronics workers tend to be vulnerable. The majority are young women aged between 18 and 25, with few economic resources. Many are single mothers. They are prepared to accept poor conditions in the workplace because they must provide for their children. Their expectations for their own lives are often low. Sister Luz Elena Barrios Calleros of the Centro de Reflexión y Acción Laboral (CEREAL), which facilitated CAFOD's research in Guadalajara, runs courses on self-esteem for workers. She believes that low self-esteem perpetuates poor working conditions:

“It’s terrible to say, but many workers feel that what they get is what they deserve. Their opinion of themselves is often very low. They think because they didn’t finish high school or get a degree that ending up in a *maquiladora*¹¹ is an inevitability. The treatment that they are subjected to in the maquilas makes this situation much worse. They are treated as if they were ignorant and stupid. They tell us that they are treated like animals, shouted and sworn at, sometimes even pushed around. It is a fundamental right for the worker to be respected, however lowly the job they are doing.”

According to Juan Carlos Paez, Human Rights Coordinator of CEREAL, the companies exploit workers’ vulnerability. They know that “they can push the conditions further and further down, progressively lowering pay, benefits, safety precautions, and yet the women will hang on – because they have to. The company knows exactly how fragile is the situation of these workers, and they exploit that.”

Sylvia, 28, a single mother of two daughters was involved in a dispute with IBM when the company attempted to reduce wages: “My supervisor told me to shut my mouth if I care about my two children. He said, ‘Think about how you are going to provide for them if we sack you.’ This is how they threaten you.”

Central to the difficulty workers face in asserting their rights is the absence of effective unions in the electronics factories. As Juan Carlos Paez says: “Unions cannot even get a foothold in the electronics sector, they are blocked out by employment agencies. People need to be educated and trained so that they can protect themselves against exploitative practices. The more they know their rights, the more they can defend their own human dignity.” Factories are unrelenting in their efforts to anticipate and forestall collective action. They discourage workers from talking in a group with colleagues. Lupe, 28, comments: “It is very difficult to discuss things at work with other colleagues, to try and get anything organised. If we were ever found talking in a group the supervisors would threaten us with the idea of the plant being closed, ‘If you don’t reach the production targets then all this work will go China,’ they said. ‘There they are better workers than you and they get less pay.’”

The recruitment methods used by employment agencies show the lengths to which companies will go to ensure a pliant workforce: agencies screen out potential “troublemakers” by discriminatory and often humiliating recruitment practices. CAFOD has seen a list of reasons for refusing employment, used by three agencies who contract workers for the IBM production line.¹² The list clearly shows discrimination against, among others, gay men and lesbians, pregnant women, and anyone who might encourage workers to negotiate collectively for better conditions.

“Reasons for rejection in psychological interview” include “has brought labour claims, homosexual, socially inadequate, does not agree with policies of IBM, signs of lesbianism, more than two tattoos, doesn’t respect authority, conflictive person, belongs to a political party as an active member, not disposed to work overtime, father is a lawyer, has a qualification in law, worked for a lawyer, worked for a union, transvestite, has earrings, has long hair.”

“Reasons for rejection in socio-economic interview” include “has friends who are drug dependent, has a brother who is a union inspector, was a leader in presenting a complaint before Conciliation and Arbitration Committee; uninterested in work because pregnant; has previously been in IBM and makes negative remarks about redundancy conditions.”

“Reasons for rejection due to health” include “pregnancy”. In addition, there is age discrimination: it is very hard for anyone over 30 to get a job in an electronics factory.¹³

A common feature of the interview process for jobs in the electronics industry is a “health test”, usually including urine and blood tests. Workers are not told the results of the tests. Pregnancy testing is the norm. Some employers are explicit about the purpose of the test, while others are vague: it is “to see if you have any illness”.¹⁴

According to Lupe: “In the interview with Caspem, when I first went into IBM, they ran

tests on me: they took X-rays and samples of urine and blood. They didn't tell us what the tests were for, and we never saw the results. This seemed normal to me at the time – I didn't know there was anything wrong with it. I mean, I assumed of course that they didn't want people with any illnesses, or women who were pregnant, because they don't want to pay for any time off. But until I met CEREAL I didn't realise these were violations of our rights.”

Women workers interviewed by CAFOD told how they were examined naked and asked intrusive personal questions such as, “Do you have a boyfriend?” “How often do you have sex?” and “Do you have children?”

Jannet, 20, reported: “I had to fill in a questionnaire; it had some really personal questions in it. They asked, ‘How many boyfriends have you had? When did you last have sex? How many times? Do you have any sexually transmitted diseases?’ I stopped filling in the answers.”

The agencies also visit potential recruits in their home, examine their possessions and interview their neighbours. Workers told CAFOD that their families and neighbours had been asked, “Who are their friends and associates?” “Do they keep good company?” and “Do they have a drinking or drugs problem?”¹⁵

According to Ramona, 24: “They came round to the house and spent half an hour looking around at our possessions. I suppose they don't want too big a gap between how you live and your conditions in the factory. They talk to your neighbours, to find out what sort of friends you have.”

Monica's story

Monica, 26, was recruited in 1999 by contract manufacturer SCI to work on an assembly line making Hewlett Packard printers. Monica worked on the Hewlett Packard line until 2001:

“They did a psychometric test on me and then asked normal questions, without all the personal stuff I had at IBM. But then came the medical exam. I was in a room with two nurses. Well they were dressed like nurses anyway. They were both very rude and really bullied me around, shouting at me to do this, do that.

They asked me all those questions about drinking, smoking, illnesses in the family. Then one said, “Strip off, I need to check you for tattoos.” My word was not good enough. I had to take off all my clothes, including my underwear. They even touched me while I was naked, checking my breasts. I don't know what they were really looking for.

After that, they asked me if I was pregnant. I said no, but that wasn't enough. They gave me a test paper and ordered me into the bathroom telling me to do the pregnancy test. They said, “If you have your period then you have to show us your sanitary towel to prove that you are bleeding.”

It was a totally humiliating experience. It was the worst thing I have ever had to go through. It was completely degrading. But I didn't know how to complain – I mean, they were doing the same thing to everyone.”

CAFOD has anecdotal evidence from many other workers that these practices continue. CAFOD offered Hewlett Packard the opportunity to comment on Monica's story, and received the following response:

“HP has no prior knowledge of this 4 year old situation and there are not enough specifics to confirm or refute this allegation. If HP had timely knowledge of this

information, we would have taken immediate action. We will engage with all of our suppliers to ensure that the practices mentioned are not taking place in support of HP. Our code of conduct clearly does not allow or condone such practices. If you will provide us with details, we will investigate further.”¹⁶

CAFOD continues to engage with Hewlett Packard on labour issues.

Recruitment agencies and workers' rights

Mexican labour law requires that employment agencies must provide exactly the same conditions as the ultimate employer. However, agencies avoid this provision by registering themselves as “manufacturing sub-contractors”. The agency then employs workers on significantly worse terms than those of direct employees of the company, cutting employment costs by 10 to 40 per cent. This system has serious negative consequences for workers.

Short-term contracts

“About 90 per cent of the workers who come to us for help are from the electronics sector. This is partly due to the instability of the sector, with all the hiring and firing that goes on as big orders, or even entire companies, come and go. Of all the sectors we work with, electronics is the most volatile, and this leads to many violations of people's rights. The modus operandi of the electronics sector is what we call “seagull capital” – it alights here in Mexico for a little while, then flies off to China or Taiwan.

The jobs of workers employed by agencies are constantly under threat. Workers are employed on consecutive short-term contracts of between 28 days and three months, and remain on such contracts sometimes for several years, although Mexican law bans this practice. Short contracts make it easier to “hire and fire”. If there is a dip in demand, workers can simply be dismissed when their contracts expire. As a result, workers live in an atmosphere of constant insecurity and fear. One worker who was employed by three different agencies while working in the IBM factory said: “You never feel secure in that environment ... uncertainty is a permanent factor; you never know whether you will be working next week.” There is no unemployment benefit in Mexico, and losing one's job can mean an abrupt fall into poverty. According to CEREAL, “If you don't earn, you don't eat.” Short-term contracts are particularly harmful to women, because they are used as a mechanism to avoid paying maternity benefits: when a woman becomes pregnant, her contract is simply not renewed. One worker, when asked what single change would improve her life immediately said: “Permanent contracts!”

Juan Carlos Paez, CEREAL, Mexico, CAFOD Partner

Denial of benefits

Employment through agencies is a means of paying workers fewer benefits. Those who are sacked after a string of short-term contracts do not receive the “length of service” payment to which workers are entitled on termination of direct employment.

Lupe's story

Lupe, 28, used to work in the IBM factory.

“I first met CEREAL in June 2001 when IBM tried to lower all our salaries across the different agencies. Oscar¹⁷ left slips of paper in our lockers saying there was going to be a meeting. We had already decided individually that we weren't going to accept the cut. So 50 of us went to CEREAL. That's how our movement got started.

It really hit me, hearing about my human rights and labour rights for the first time.

It was the first I knew about all the benefits we were losing through having the one-month contracts. I thought to myself, how can this be possible? The employers are doing exactly as they like and we don't even know it's wrong! Why should we be putting up with this? I just couldn't believe how the agencies were robbing us.

My own workmates were telling me to stop the activities with the group. But I said, "I'm not having my salary cut. If you want to go along with it, that's up to you." But it was so great going to the meetings with CEREAL. They took us to see the press, we went all over the place. And we won! After the press attention, they decided not to cut our salaries. I felt so good, so satisfied when we won. It was totally cool. Articles were published saying that because we had resisted, we had managed to beat IBM.

We really thought they would sack us all. Every day we expected to be fired. But we never were – until we gave an interview to CAFOD.¹⁸

CEREAL's work is great. It's so cool that they are out there helping others like us who just don't have the first clue about what their rights are. Because of the problems that we had, we ended up learning about all our other rights, not just about salaries. If I hadn't known all this, I would have accepted the tiny pay off Caspem [employment agency] tried to give me. I wouldn't have known how to defend myself when they sacked me. Since then I've been telling my friends to stick up for their rights too.

Redundancy pay

This account is from someone¹⁹ who worked on a conveyor belt assembling hard drives in the IBM factory and was fired in July 2003 by an employment agency after asking to be put on a permanent contract:

"The director called me in when I started asking for my rights, after I'd spoken to CEREAL. She said, 'I want to know who is giving you advice. It's obvious that someone is helping you, from the way you talk.' I denied it. She was pushy and aggressive. She said, 'If I want to I can sack you right now without giving you a cent.' She treated me as if I were completely ignorant. But I wasn't afraid of her.

I never got what I asked for; they sacked me instead. But I was ready, thanks to CEREAL. You have to be prepared for whatever they do to you. So at my first redundancy interview I went through the payment details they showed me line by line. I know how to do this now. It was full of errors, showing that I was owed less than I really was. I told them to correct the errors.

When I came back the next day, I took along a page of calculations we had prepared at CEREAL, showing the liquidation payment I was due. I said, 'This is my proposal. I know what I am legally owed.' But as soon as the personnel worker saw the CEREAL logo on the page, she flew off the handle and said, 'I'm not even looking at this rubbish.' She turned the page face down.

'We are totally sick of hearing about CEREAL,' she said. 'Everything they tell you is lies.' She offered me 13,000 pesos [US\$1,300] but I was owed 18,000. They went up to 15,000 but I was still not satisfied, and I went to the Conciliation and Arbitration Committee.²⁰ But they gave me no help at all. I arrived with a lawyer, a friend of mine. 'Personal lawyers are not permitted,' they said. 'We will provide you with one.' They wanted me in there on my own. Of course the lawyer they gave me was obviously on the company's side. They offered the 15,000 again and said, 'You'd better take it because it's all your getting.' So in the end I did."

Many social security payments in Mexico are dependent on continuous length of service and so workers with many periods of short employment find it difficult to acquire the right to a pension or to housing benefits. Short-term contracts force workers to forego holidays: Mexican workers must work a year's permanent contract to earn six days' holiday and time off does not accrue on monthly contracts. Ramona, who is 24, describes the effects of this system when she worked in IBM's factory: "They refused to give me any time off work when my dad died. The law says we should get three days' compassionate leave. They said I couldn't even take it as part of my holiday entitlement. Obviously I had to go, so I paid someone to do one of my days, then I just took the other two anyway to go to the funeral. The personnel officer deducted two days off my pay."

Sacked for talking to CAFOD

In April 2003, CAFOD conducted research in Guadalajara on working conditions in the electronics sector and interviewed several workers about their experiences in the factories. Days after they spoke with CAFOD, three workers were sacked.²¹

Ramona's story

Ramona, 24, is unmarried and has no children. She lives with her mother, whom she supports. They live in a well-established neighbourhood, where many houses were built by the state for sale to low-income families. When she was sacked, she had been working at IBM for four years, employed by agencies on one-month contracts throughout. Ramona now works at another electronics factory, making mobile telephones.

"I had the talk with CAFOD on the Wednesday. Nine days later on the Friday I was sacked. With the pretext that I had arrived in work late, they told me to change out of my work clothes and go to personnel. As soon as they told me this, I knew I was being fired.

I was taken from the factory in a car to the Caspem [employment agency] offices. On the way they questioned me about whether Lupe [who also spoke with CAFOD and was also sacked] was a good friend of mine.

I wasn't sure yet why I was going to be sacked. I thought it might be because I had been there long enough and they didn't want me to accumulate length of service – they don't like you to work there for too long even on the one-month contracts. Or it could have been because they thought I was difficult, because I didn't like the way I got pushed around.

But then when I got to the office the personnel woman said straight away: "Did you know those English people who were talking to you?" And she asked me who my lawyer was. She said a rumour had reached her that I was leaking information about the company. I said I didn't know them and that I had just met them in the street. She accused me of being a ringleader and threatened to blacklist me.

She then put up a show that she wasn't sacking me for this but because of my length of service – basically they tell you that you've been there for four years or however long it is, and therefore your time is up – as if this made any sense.

She offered me a cheque for 2,000 pesos [US\$200]. I said I was owed 12,000 [US\$1,200]. They try to force you to sign while you are still in there, so that you don't have time to go and ask anyone for advice about whether the amount they offer is right. Eventually she gave me 11,000, which was not bad. I think they wanted to pay us off and shut us up quickly because they could see we had outside contacts helping us.

In one way I wasn't too sad to leave that place because the atmosphere was always so tense. The supervisors were very difficult and we weren't allowed to talk to each other during the day. Then the people who were directly contracted by IBM were much

"I believe there is a cynical hardening of global economic structures with respect to the rights of the workers ... An example of what I mean to be 'cynical' is that transnationals talk about making working practices more 'flexible', when the reality of this so-called flexibility is that people are forced to work on contracts of only 28 days, with low pay, no social security, no pensions, and no union protection. The contracts are often illegal in themselves, and then even these are not respected."

Father Sergio Cobo, Jesuit Priest and Director of Fomento, Mexico, CAFOD partner

better off – although there aren't many of them, only one per line. They get paid holidays and a two-day outing at Christmas for all the family, paid for by the company. They get canteen coupons, production bonuses, savings funds, medical insurance.”

CAFOD has shown IBM the stories of the Mexican workers and has offered the company the opportunity to comment in writing. The company responded as follows:

“We consider the situations you have raised to be serious ones. We have therefore initiated a comprehensive review to ascertain the facts, and if we find violations we will take swift and decisive action to address those instances.

IBM has had a long-standing and strong policy against discrimination in its employment and business relationships, and we also are thoroughly committed to complying with each country's laws against discrimination. This policy includes our supply-chain relationships. At IBM we strive to maintain a work environment that is free from discrimination or harassment based on race, colour, religion, sex, sexual orientation, age, national origin, disability, or other factors that are unrelated to IBM's legitimate business interests. In September we introduced a specific non-discrimination clause in our supplier contract base agreements which states that suppliers should not discriminate against any employees, applicants for employment, or any entity engaged in its procurement practices, on the grounds of race, colour, religion, sex, age, national origin or any other legally protected status.

As we have discussed with you previously, we are in the midst of implementing a programme to further assess and monitor the practice of our suppliers in their labour practices, occupational health and safety, security and environmental safety. We have concluded that we need to go further to understand supplier practices and to determine if there are any gaps between what suppliers are doing and what we require of them and to address immediately any gaps we find between those two things.”²²

The treatment of these workers in factories supplying major computer companies is a vivid example of the degradation of the workers employed on electronics assembly lines. But swift action by labour contractors in ridding themselves of dissenters shows that they know their treatment of workers is unacceptable. As Ramona says: “It's obvious from their questions that they have something to hide and don't want anyone in authority to find out.” It can only be hoped that the courage of Ramona and her fellow workers in speaking out will show the companies that they must treat workers with the dignity owed to all human beings, and not as expendable parts of the production process.

CAFOD's research in Guadalajara was facilitated by CEREAL, the Centro de Reflexión y Acción Laboral, which campaigns against violations of labour rights and provides legal and education counselling to workers in Mexico, including electronics workers in Guadalajara. CEREAL also researches working conditions in other economic sectors and helps workers to strengthen democratic practices in Mexican unions. CEREAL is part of the Mexican NGO Fomento, an organisation of the Social Apostolate of the Mexican Province of the Jesuits. From its inception in 1998, CEREAL has been a CAFOD partner.

Sub-contracting in Thailand²³

Thailand is the world's second largest producer of hard disc drives (HDDs).²⁴ The industry grew up on the back of large-scale investments from computer multinationals attracted by low labour costs. In recent years, however, prices for HDDs have fallen and low-wage competition from China has been intense. HDD industry wages in China are estimated to be 50 per cent of those in Thailand.²⁵ The average price per megabyte for an HDD was US\$11.54 in 1998; in 2002 the price hovered between five and 15 cents.²⁶

In response, companies operating in Thailand have been cutting costs by using sub-contracted labour. CAFOD interviewed sub-contracted workers in the Thai HDD industry who clearly have a rougher deal than their directly employed colleagues. Many are younger and they look tired, with old, dirty clothes rather than uniforms. The workers we spoke to were paid around half the wage of permanently contracted workers. They received about US\$4.25 a day. This is the legal minimum wage, but it does not cover the average monthly expenditure of a Thai household on food and housing.²⁷

If sub-contracted workers fall ill, they do not receive sick pay or social security payments, nor (in contravention of Thai labour law) do they receive any paid annual leave or paid leave on public holidays. The overtime pay they receive does not meet legal requirements, so they are asked to do most of the overtime. Sub-contracted workers to whom CAFOD spoke have to work overtime of "sometimes four hours a day, sometimes eight hours".

Like their Mexican counterparts, sub-contracted workers in Thailand are dismissed if they become pregnant. Workers told CAFOD that one employee of their sub-contracting company had openly warned them that anyone who became pregnant could lose her job. "In our company anyone who gets pregnant is sacked," said one 25-year-old woman.

"We want the customer to see the reality of our suffering; that the price and the profits aren't given to us"

Sub-contracted worker,
Thailand

China: The global factory



"If there is a traffic jam between Dongguan and Hong Kong, 70 per cent of the world's computer market will be affected."

Deputy Director of IBM
Asia²⁸

China is now the largest developing country exporter,²⁹ the world's largest recipient of foreign direct investment (FDI)³⁰ and the fourth-largest industrial producer behind the US, Japan and Germany³¹. Its export growth has been tremendous, reverberating in markets throughout the world. In 2002 China accounted for 60 per cent of world export growth.³²

China has emerged in the last 20 years as the world's leading electronics manufacturing location. While electronics factories elsewhere in Asia have been suffering, many plants in China are reportedly doubling output in 2003.³³ In 1999–2000 China's two top export products were telecommunications equipment and computers.³⁴ In 2000 high technology products accounted for 22 per cent of China's total exports.³⁵ In the same year, 25 out of 30 of the largest foreign transnationals to export from China were electronics or telecommunications companies.³⁶ China is becoming a "global factory" for the computer industry. Huge factory complexes, many funded by Taiwanese capital, produce the components and parts for the global electronics industry.

Chinese factories are involved in many parts of component manufacture and assembly: factories in the Pearl Delta region produce CD and DVD ROMS, scanners, keyboards, monitors, desktop and laptop PCs, passive components (such as capacitors and resistors), printed circuit boards, power supplies and mobile phones.³⁷

The labour force

Chinese success is based in part on low wages.³⁸ China's wages are a fraction of those of its main competitors – half the rate of Indonesia's, a quarter that of Malaysia and the Philippines, an eighth of Mexico's and around 5 per cent of Taiwan's manufacturing wage.³⁹ Manufacturing wages average 60 US cents per hour.⁴⁰ The labour force is based on a massive pool of migrant labour from rural China.

While electronics production is concentrated in the Pearl River Delta region, the workers in Chinese factories are mostly migrants from further north, often young women who seek a job in an export factory to save money to send home.⁴² Typically, workers are recruited through labour agents and vocational schools in inland provinces.

Most live in cramped conditions in dormitories on the factory site. Typically, around ten to 15 people sleep on bunk beds in each dormitory. The dormitories vary widely in standard. Some are acceptable to workers. Others are dirty, inadequately heated and ventilated, and without hot water or sufficient washing facilities, so that workers have to queue for a long time to shower after an 11-hour shift. Workers generally eat all their meals in the factory. Some factories provide adequate food; in others workers complain that the food is poor.

Excessive overtime and low wages

Very long, compulsory overtime and wages below the legal minimum are endemic in Chinese factories and the electronics sector is no exception. According to Chinese labour law, workers are entitled to at least one day off a week and overtime should not exceed three hours a day or 36 hours a month. The legal minimum wage in Dongguan, where most of CAFOD's research was carried out, was around US\$54 a month in 2002; the minimum wage is calculated on the basis of an eight-hour working day and workers should not be expected to work overtime to earn it. The law also requires weekday overtime to be paid at 150 per cent of the regular daily rate, Saturday and Sunday overtime to be paid at 200 per cent, and overtime on a statutory holiday to be paid at 300 per cent. However, the Chinese labour authorities do not enforce the law, partly because of their weak capacity: their staff are under-resourced and lack appropriate training.

Workers in the electronics factories which supply major brands routinely work hours far in excess of the legal maximum and without receiving the overtime stipulated in the law. One Taiwanese company with five factories in Dongguan City supplies many different components to major computer brands, including power supplies and adapters; printed circuit boards (PCBs); computer monitors; cooling fans and motors for computers; and CD ROM, networking products and lighting products. During the peak season, assembly

“There are ... plenty of girls with good eyes and strong hands. If we run out of people, we just go deeper into China.”

Manager of Chinese electronics factory⁴¹

workers in these factories work three to five hours of overtime a day, an average of 100 to 120 hours a month; and they work seven days a week. In the slack season, workers are given days off, but without pay. These working hours are typical, although hours can be even longer in other factories: up to 15 or 16 hours a day in the peak season. Some workers work all night in peak periods.

Wages are well below the minimum of US\$54 a month. The basic wage in these factories is US\$37 a month (increasing to US\$39 after working in the factory for one year, and to US\$42 after two years). To earn the minimum wage, workers must do illegal amounts of overtime. They may earn as little as US\$36 in the low season. Although workers receive up to US\$72 during the peak season, they can only earn this by working unacceptable amounts of overtime.

Overtime

Miss C, aged 20:

“Everything in this factory looks nice. The only thing is the low wages. I have been in the factory for two years and the highest income I have ever got is a little more than 500 renminbi (\$60). That was earned after having worked more than 100 OT [overtime] hours. ... How can that money be enough for us? At least you have to buy for everyday provision. And if I buy some clothing for myself, my income is finished.

It is even worse in the low season when we have no OT work. Our basic wage will be deducted when we are forced to have a day off because no order is placed and we have no work to do. I do not find it too harsh working here. The only thing is low wages. We all want to earn more.”

Low basic pay and overtime rates are not the only wage problem. Wages are often reduced further by the need to pay back debts to labour agencies who charge a high fee to place workers in jobs. Often factories retain wages so that workers receive them some weeks after they are due. Workers who resign do not receive the backdated wages owed them. One factory which produces CD and DVD ROMs deducts about 10 per cent of workers' salaries in the first year of employment, returning the money after 12 months. This is intended to prevent workers from quitting in the peak season. Many workers do not have a written contract, and so cannot hold management to account for payment of proper overtime rates and hours. In peak seasons, workers may not even take sick leave: if they take a day off, wages are deducted.

Miss A is 18 and has been working in an electronics factory since she was 16. She finished junior high school at home in Shanxi province. When she learnt that factories in Guangdong province were recruiting new workers, she went to a local labour agency to register. She paid the labour agency RMB750 (\$91) and they arranged a place for her on a coach carrying young women workers from Shanxi to a factory in Dongguan City. Miss A paid the factory RMB50 (\$6) as down payment for her job. So she was RMB1,000 (\$121) in debt before starting work. At first she thought she would be able to return the money soon after entering the factory, but she was disappointed. In the first six months, she received only RMB300-400 (\$36-48) a month. After spending on food and other daily provisions, she had nothing left.

Excessive working hours do not boost factory profits. Recent research suggests that there is a business case for reducing overtime at supplier factories in China: cutting hours can help increase productivity. Many factories operate at 35-75 per cent of their capacity and there is a clear link between high levels of overtime and low productivity. A cultural change is needed in China to make shorter working hours acceptable.⁴³

Insurance

Under Chinese labour law, employers must pay for workers' insurance for retirement and industrial injury. In many electronics factories, workers are not covered by some or all of these types of insurance. Sometimes only those working in a particularly risky activity are insured for industrial injury, or only senior staff – supervisors and above – have retirement insurance.

Physical and psychological pressure

Factories have harsh penalty systems and exert strong psychological pressure over workers. In one factory, 25 US cents are deducted from wages if a worker violates a factory or dormitory rule. In another, 0.6 cents are deducted for each minute a worker is late. If workers are absent without permission, US\$3 is deducted. Workers are allowed to leave the factory premises only on Wednesdays, Saturdays and Sundays; at other times, they must obtain permission. Elsewhere, workers are forbidden from talking during work, and are fined for not sitting properly. In one factory, a worker is fined US\$3.60 for her first mistake in production and US\$7.20 for a second. There is one plant, which makes monitors, where managers have the right to fire workers who step on the grass in the factory complex. In another factory, workers who are caught littering must wear a placard saying “I am a garbage producer.”

The need to deliver quality products on time often means that workers are under great pressure not to make mistakes and to achieve production quotas, which are set by the day or by the hour. Conveyor belts are sometimes speeded up when there is a rush to deliver on time. In one keyboard factory, the job of each worker on a conveyor belt is to insert six or seven keys into the board. Each worker must finish 300 keyboards an hour. That means she must insert each set of six or seven keys and move on to the next within 12 seconds, and continue to do so for 12 hours. Workers testing monitors must test 150 an hour — 24 seconds for each monitor. Workers live in fear of criticism from supervisors and feel under intense psychological pressure. In a factory that makes components for laptop computers, workers are not allowed to talk, stretch or look around; and they may not leave the production line to use the toilet or drink water. In a factory making monitors, a worker who makes a mistake must wear a red overcoat. Workers interviewed for this research consistently complain of finding the work extremely stressful: many complain that they have nightmares about being criticised and penalised at work.

Health and safety

Most people assume that electronics factories are at least clean, because of the precision required in manufacturing computers. However, a clean factory is not necessarily a safe factory, and many electronics workers operate in a dangerous or unhealthy environment. Many factories have no health and safety department, and fail to provide workers with health and safety training.

Some workers are exposed to dangerous chemicals without appropriate protection or training. Solvents are used to cleanse parts such as computer cases, which are then sprayed with liquid and powder paints. Workers rarely receive chemical safety training: they do not know the names of the chemicals they are using, whether they are dangerous, and what protection they should use. Chemicals are supplied in unlabelled containers.

In one factory, workers dealing with solvents are given cotton gloves, but do not wear them: the gloves are not effective because they become soaked through with solvents and many workers get rashes and spots on their hands even when wearing the gloves. The gloves serve primarily to protect the components from the workers' sweat, rather than to protect the workers' hands; and wearing gloves slows workers down, making it more difficult to achieve production quotas.

Workers who solder components on to metal boards are exposed to smoke and complain of skin irritation and breathing difficulties. Workers making printed circuit boards suffer from

“Our two hands keep on working every minute. Our brains keep on working as well. Your hands have to move as quickly as your brain. If you lose concentration for one second, you will make a faulty product. Points will be deducted and for sure the production bonus will shrink at the end of the month.”

Male worker in computer assembly plant

chemicals most: their job is to dip the board into different chemicals, which come into contact with their skin. They often suffer from rashes. Chemicals are not properly stored. One worker joked that the factory looked more like a petro-chemical plant than an electronics factory.

In December 2001 there was a fire in a factory which makes computer cases and peripherals. A machine used to mould computer cases had had an oil spill and the workers on duty, who had not received health and safety training, used a flammable thinner to clean the floor. The thinner caught fire and eight workers were burnt. Two had 30 per cent burns, including to their faces and feet, and they now have difficulty walking. Another has difficulty using her hands. The workers in the factory were not insured for industrial accidents at that time and the injured workers have not been compensated according to the law. The factory had no fire drill or fire safety training.

Elsewhere, workers are subject to noise pollution. Machines which press components together are very loud. Workers are given cotton ear-plugs every six months, but they last only two weeks. Workers on production lines often find their legs, backs and shoulders become stiff and sore after standing at work for up to 11 hours. Those who test monitors sit in front of them for up to 11 hours a day, looking at a flashing screen. They often have eye problems, including tired and swollen eyes, and after a while their vision becomes blurred. The factory gives them no education about eye problems that might arise from their work. Others, whose job is to insert components into boards, work through microscopes all day. Their eyes become tired, swollen, and dry. These problems are exacerbated because workers feel that they cannot lift their heads to look around occasionally.

In one factory that makes components, the grinding department grinds up metal debris, creating a great deal of metal dust. The workers do not wear protective masks. They develop dry sore throats and hoarse voices.

Bad practice is avoidable. Workers interviewed in one factory which assembles mice and digital cameras praised health and safety management. Their workplace is air-conditioned, which cools both machines and air temperature; workers can sit while they work; there are short breaks between work sessions; and there is good ventilation which captures the chemical-laden smoke that soldering produces; and workers are provided with gloves and masks.

Freedom of association

The problems experienced by Chinese workers are closely linked to their inability to bargain collectively to improve working conditions. Chinese workers are not represented by free, democratic trade unions. There is only one legal union, the state-controlled All China Federation of Trade Unions (ACFTU). The ACFTU is not recognised by international trade union federations. Lack of representative organisations affects workers in the electronics sector as it does all other Chinese workers, making it very difficult for them to assert their rights and achieve sustainable improvements in working conditions. Nor do workers generally participate in factory decision-making in any other way: very few electronics factories consult workers on any aspect of their work, and there are few factory health and safety committees with worker representatives. Managers clamp down on any show of solidarity by workers. One factory, which assembles monitors, has a rule that workers who “gather together illegally and disturb production” are dismissed. The absence of effective unions or other collective action is reflected in workers’ low level of awareness of their rights under Chinese law. In one factory making keyboards, not one worker interviewed knew about Chinese labour laws.

CAFOD’s research on working conditions in Chinese electronics factories was carried out by the Hong Kong Christian Industrial Committee (HKCIC), which conducts education and advocacy activities on workers’ rights and promotes the independent trade union movement. It is not easy for NGOs to obtain access to Chinese electronics factories and it is particularly difficult to have candid conversations with workers.

Notes

- ¹ ECLAC, *Foreign Investment in Latin America and the Caribbean 1999*, 1999.
- ² *Business Week*, 6 August 2001.
- ³ ECLAC, *Foreign Investment in Latin America and the Caribbean 1999*, 1999.
- ⁴ *Ibid.*
- ⁵ Inequality as measured by the Gini coefficient was 0.473 in 1984 and 0.539 in 2000.
- ⁶ *Financial Times* 14 December 2000.
- ⁷ www.businesswire.com 7 January 2003.
- ⁸ Information from CEREAL.
- ⁹ All worker interviews were carried out by Harriet Paterson during a research project carried out for CAFOD. Except where otherwise stated, information in this section of the report is taken from this background research.
- ¹⁰ Information from CEREAL.
- ¹¹ Mexican factory where products are assembled from components for export.
- ¹² The list was supplied by psychologist Aurea Juárez Martínez who was recruiting workers in an employment agency called PAT (Personel Asociado Temporal).
- ¹³ For example, Paty, now 47, an experienced and skilled circuit board worker, has been able to get a new job in a factory.
- ¹⁴ Reported by workers, including Lupe, 28; Ramona, 24; Monica, 26, all recruited by an employment agency to work in the IBM factory; by Jannet, 20, recruited to work in a Flextronics factory; and Ana, 27, recruited to work in a Penstar factory.
- ¹⁵ Reported by Monica, 26, Ramona, 24, recruited to work in the IBM factory; and Jannet, 20, recruited to work in a Flextronics factory.
- ¹⁶ HP emails to CAFOD, 7 November 2003 and 11 November 2003.
- ¹⁷ Not his real name.
- ¹⁸ See page 28 'Sacked for talking to CAFOD' and footnote 15 below.
- ¹⁹ This worker does not wish to be named.
- ²⁰ Government office.
- ²¹ CAFOD has given compensation and offered further support to the sacked workers. All three have suffered considerable financial hardship since losing their jobs. Ramona now works for contract manufacturer Solelectron making mobile phones, but the pay is so little she cannot support herself and her mother, and she is trying to leave. During a trial period of three months, she earned about US\$40 a week, but when she completed that time, her pay was raised by less than US\$5. Lupe, also sacked from her job at the IBM plant by Caspem employment agency, now works as a sales promoter in a supermarket. Despite long hours, she is much happier, because she has a great sense of independence. Oscar (not his real name) was sacked from Technicolour, part of Panasonic. Oscar subsequently returned to the IBM factory, employed by a different agency, and was sacked after one week. Oscar has now lost his job four times for taking action on labour issues.
- ²² IBM letter to CAFOD, 14 November 2003.
- ²³ CAFOD background research in Thailand.
- ²⁴ McKinsey (2002) *Computers and Electronics in Thailand: Prosperity through Productivity*.
- ²⁵ *Ibid.*
- ²⁶ *Far Eastern Economic Review* 2 May 2002.
- ²⁷ National Statistical Office Thailand (2001) *Household Socio-Economic Survey 2001* Bangkok: NSO.
- ²⁸ Dongguan Information Centre 2001, located at <http://www.3cexpo.com/english/index.asp>, cited in *Rigged Rules and Double Standards*, Oxfam 2002.
- ²⁹ By value for the year 2001, UNCTAD (2002) *Handbook of Statistics 2002*, Geneva: UNCTAD.
- ³⁰ For the year 2002, UNCTAD (2003) *World Investment Report 2003*, Geneva: UNCTAD.
- ³¹ *Far Eastern Economic Review* 17 October 2002.
- ³² FT.com site 22 September 2003.
- ³³ *Financial Times* 4 February 2003.
- ³⁴ UNCTAD (2002) *World Investment Report 2002*, Geneva: UNCTAD (calculated by SITC number – numbers 764 and 752).
- ³⁵ UNCTAD (2002) *World Investment Report 2002*, Geneva: UNCTAD.
- ³⁶ Based on figures from UNCTAD (2002) *World Investment Report 2002*, Geneva: UNCTAD.
- ³⁷ Background research by Hong Kong Christian Industrial Committee.
- ³⁸ China is also an attractive location because of its huge domestic market, and because a common language made business in China easier for Taiwanese investors.
- ³⁹ Adapted from UNCTAD (2002) *Trade and Development Report 2002*, Geneva: UNCTAD.
- ⁴⁰ *The Economist* 13 February 2003.

⁴¹ *Financial Times* 4 February 2003.

⁴² Except where otherwise stated, information in the report on conditions in Chinese factories is taken from research carried out by the Hong Kong Christian Industrial Committee.

⁴³ The Impactt Overtime Project carried out for Debenhams, Hennes & Mauritz, Ikea, Marks & Spencer, New Look, Pentland Group and Sainsbury's by Impactt.

IV Agenda for change

Workers in the electronics sector are getting a raw deal. Political will is lacking at international and national level, while companies lack commitment to labour rights and are reluctant to intervene in supply-chain operations that enable them to cut costs. All this combines with lack of awareness by northern consumers, and above all the undermining of workers' ability to speak out on their own behalf, to drive working conditions down. The strategy of outsourcing to low wage countries is not intrinsically bad for workers. But the distribution of benefits in the electronics sector is currently weighted too far in favour of northern MNCs and consumers. It needs to be rebalanced in favour of the poor.

CAFOD calls on:

Multinational computer manufacturers:

- to adopt codes of conduct for supply-chain labour standards based on ILO standards;
- to provide sufficient commitment and resources to implement and monitor these codes;
- to ensure that the rights of temporary and part-time workers are guaranteed equally with those of permanent, formally employed workers;
- to incorporate implementation of the codes into core business practices such as contract negotiation and forecasting;
- to work together to identify good practice and share learning;
- to put workers at the centre of action on labour standards by involving unions, NGOs and other workers' groups in efforts to improve working conditions.

Host governments:

- to ratify relevant ILO standards;
- to enforce national and local labour laws;
- to ensure that national and local legislation covers temporary and part-time workers;
- to cooperate with each other to remove labour standards from the competitive arena in attracting FDI.

The UK government:

- to promote the UN Norms on the Responsibilities of Transnational Corporations and other Business Enterprises with Regard to Human Rights;
- to ensure that the Department for Trade and Industry strengthens the National Contact Point for the Guidelines for Multi-National Enterprises of the Organisation for Economic Cooperation and Development (OECD), and makes the complaints procedure accessible and transparent, to southern complainants in particular;
- to take into account companies' practices in supply-chain labour standards when awarding procurement contracts.

Institutional investors:

- to raise with OEMs and contract manufacturers their practices on labour standards.

Trade unions:

- to ensure that collective bargaining agreements work for the benefit of marginalised groups, including women and temporary workers;

- to work constructively with international unions to negotiate collectively for minimum labour standards.

The international community

- to strengthen the ILO, and its enforcement mechanisms in particular.

Institutional and individual consumers

- to hold the computer manufacturers from whom they buy PCs and other computer equipment to account for their management of supply-chain labour standards.

“In order to achieve social justice in the various parts of the world, in the various countries and in the relationships between them, there is a need for ever new movements of solidarity of the workers and with the workers. This solidarity must be present whenever it is called for by the social degrading of the subject of work, by exploitation of the workers and by the growing areas of poverty and even hunger. The Church is firmly committed to this cause for she considers it her mission, her service, a proof of her fidelity to Christ, so that she can truly be the Church of the poor.”

Laborem Exercens 8.5, Pope John Paul II.

CAFOD

CAFOD is a major British charity that has been fighting third world poverty since 1962. We believe that all human beings have a right to dignity and respect and that the world's resources are a gift to be shared by all men and women, whatever their race, nationality or religion.

CAFOD is the English and Welsh arm of Caritas International, a worldwide network of Catholic relief and development organisations. CAFOD works in partnership on 1,000 programmes worldwide.

We raise money in England and Wales to finance:

- long-term development work
- emergencies
- analysis of the causes of underdevelopment
- campaigns on behalf of the world's poor
- education in England and Wales that raises awareness of the causes of third world poverty and promotes change.

For more information on CAFOD, see www.cafod.org.uk

CAFOD's work on labour standards

- CAFOD believes that a commitment to decent working conditions for all workers is necessary to achieve social justice.
- CAFOD lobbies government and businesses in the North to implement measures that will improve the conditions of workers in developing countries. CAFOD is a founder member of the Ethical Trading Initiative, a tripartite organisation of UK and global retailers, trade unions and NGOs working together to improve supply-chain labour standards through the implementation of the ETI Base Code, an agreed code of conduct based on ILO standards. A CAFOD representative is currently on the board of ETI.

For more information visit www.ethicaltrade.org

- CAFOD works with partners in the South who provide support to and advocate on behalf of poor workers manufacturing products for export.

CEREAL, the Centro de Reflexión y Acción Laboral, campaigns against violations of labour rights and provides legal and education counselling to workers in Mexico, including electronics workers in Guadalajara. CEREAL also researches working conditions in different economic sectors and helps workers to strengthen democratic practices in Mexican unions. CEREAL is part of the Mexican NGO Fomento and of the Social Apostolate of the Mexican Province of the Jesuits. Since its inception in 1998, CEREAL has been a CAFOD partner.

For more information visit <http://www.sjsocial.org/fce/fce.html>

The Hong Kong Christian Industrial Committee (HKCIC) was established in 1967 by the Hong Kong Christian Council. HKCIC provides support to Chinese workers and their families, conducts education and advocacy activities on workers' rights, and promotes the independent trade union movement. HKCIC has previously been involved in substantial research and advocacy projects on conditions in the toy, footwear and garments industries in mainland China. CAFOD is working with HKCIC on research and advocacy on labour standards in the electronics industry.

For more information visit <http://www.cic.org.hk>

CLIST is a Thai-based labour NGO and is also the Thailand country programme member for Transnationals Information Exchange-Asia (TIE Asia). CLIST was established in 1991 by a group of academics, lawyers, human rights advocates and labour activists. CLIST provides information, training, legal aid and support for workers and unions in the electronics, garment, textile, toys and car industries. CLIST has been a partner of CAFOD since 1998. For more information visit <http://www.workers-voice.org> or <http://www.tieasia.org>