SILENCED TO DELIVER
Mobile phone manufacturing in China and the Philippines
September 2008
This report is published as part of the makeITfair campaign, a European wide project on consumer electronics. makeITfair aims to inform young consumers about human rights, social and environmental issues along the supply chain. It also addresses consumer electronics companies that can contribute to change.

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SwedWatch
Research partner of makeITfair
Tel: +46 (0)8 602 89 50
info@swedwatch.org
www.swedwatch.org
makeITfair is a European wide project on consumer electronics, aiming to inform young consumers about human rights, social and environmental issues along the supply chain. The work is co-ordinated by the Dutch organisation SOMO. Project partners are IRENE in the Netherlands, SwedWatch, Fair Trade Center, Church of Sweden from Sweden, FinnWatch and Finnish Association for Nature Conservation from Finland; Germanwatch and Verbraucher Initiative from Germany, KARAT from CEE; ACIDH from the DR Congo, CIVIDEP from India and SACOM from China. Website: www.makeitfair.org

The Centre for Research on Multinational Corporations (SOMO) is a non-profit Dutch research and advisory bureau. SOMO investigates the consequences of Multinational Enterprises’ (MNEs) policies and the internationalisation of business worldwide. Focus is placed upon research on labour conditions in the global South and cooperation with local organisations and trade unions. Website: www.somo.nl

SwedWatch is a non-governmental organisation whose task is to critically examine Swedish business relations with developing countries focusing on environmental and social concerns. SwedWatch consists of five member organisations: The Swedish Society for Nature Conservation, Church of Sweden, UBV/Latin America, Friends of the Earth Sweden and Fair Trade Center. The work is mainly financed by the Swedish Development Aid Agency, Sida. Website: www.swedwatch.org

Church of Sweden

Church of Sweden works for a just world without hunger, poverty or oppression. Church of Sweden works to exert an influence on public opinion in Sweden and with development cooperation and emergency relief together with local partners in about 40 countries. Website: www.svenskakyrkan.se
Fair Trade Center is a Swedish non-governmental organisation (NGO) that has been promoting fair trade with developing countries since 1996. Its intention is to increase consumer and company awareness of social and environmental responsibility. Website: www.fairtradecenter.se

SACOM is a Hong Kong-based non-profit organization founded in June 2005, which aims to bring concerned students, scholars, labour activists and consumers together to monitor corporate behaviour and to advocate for workers’ rights. SACOM originated from a student movement devoted to improving the working conditions of cleaners and security officers under various universities’ outsourcing policies. The movement created an opportunity for students to engage in activism surrounding local and international labour issues. Website: www.sacom.hk

Workers’ Assistance Center, Inc. is a non-governmental labour institution that is involved in organizing workers organizations and unions in the export processing zone of the Cavite and Batangas provinces in the Philippines. WAC is also involved in programs dealing with legal assistance, gender issues and documentation. Website www.wacphilippines.com
FOREWORD

This report is part of the ‘makeITfair’ project to raise awareness about development issues in the production chain of the consumer electronics industry, with a special focus on products for young consumers, such as mobile phones, MP3 players, game consoles and laptops.

The focus of the project is on the consumer electronics industry, as this industry is growing rapidly and is facing many social and environmental problems throughout the world. The industry has only recently been the focus of public campaigns, and there is still limited awareness with the wider public. As the production chain of consumer electronic products is a truly global one, the sector is a particularly good example to discuss issues of globalization with young consumers.

The three-year programme of ‘makeITfair’ concentrates on young consumers because they can play a decisive role in moving the industry towards more equitable and sustainable production methods. At the same time, dialogues will be initiated with electronic brand companies to encourage them to take responsibility for issues throughout their entire supply chain.

In the first year the research reports pictured the conditions under which the raw materials for electronics are extracted. This year’s reports picture the production of electronic products in Asia. Retailing and eventually the discarding of products in the last phase of the product lifecycle will be researched in the third year of the project. Furthermore, the research investigates the situation in Europe itself: the first year the focus is on production in Poland, in the second and third year the consumer electronics industry in Czech Republic and Hungary will be addressed.

The dissemination of the research entails the development of Consumer Guides, educational material, toolkits for campaigning organisations and web based tools. Other activities in this project include capacity building sessions in Eastern Europe and the organising of an annual international Round Table to bring together electronics companies, NGOs and trade unions to discuss the various responsibilities for the environmental, human rights and labour conditions down the supply chain of consumer electronics.

This EU-funded programme is led by a consortium of NGOs from Europe that includes Germanwatch, Verbraucher Initiative, SwedWatch, Church of Sweden, Fair Trade Center, FinnWatch/ Finnish Association for Nature Conservation, Karat, SOMO and IRENE, as well as NGOs in developing countries in Asia and Africa including SACOM for China, CIVIDEP for India and ACIDH for the Democratic Republic of Congo.
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EXECUTIVE SUMMARY

36 mobile phones were manufactured each second during 2007. In 2006 a magic milestone was reached when one billion phones were produced in just one year. A large and increasing part of the manufacturing is taking place in developing and transition countries. Currently half of the world’s mobile phones are produced in China and 10% of global semi-conductor production takes place in the Philippines. Most of the workers at the production lines are young women who often carry a heavy burden as the main breadwinners of their families. As workers in the electronics sector of China and the Philippines they are denied many of their basic rights.

VIOLATIONS OF NATIONAL LAWS, ILO CONVENTIONS AND COMPANY CODES OF CONDUCT

The supply chains of the electronics industry have become more and more complex during the last few decades, with a high incidence of outsourcing, particularly to Asian countries. Over the years production centres have moved from one country to another in search for lower costs and to be able to be close to booming local markets. Between 1995 and 2006 the Asia Pacific area’s share of global electronics production increased from 20% to 42%, while production in Western Europe, the US and Japan continues to decrease.

Six factories in China and the Philippines have been examined for this report. They are delivering components to the world’s five biggest mobile phone companies: Nokia, Samsung, Motorola, LG and Sony Ericsson. These “big five” currently hold more than 80% of the mobile phone market.

The most common problems at the factories are listed below:

Low wages – In both China and the Philippines workers often earn the minimum wage for full-time work at the factory, even though these wage levels are very difficult to live on. The minimum wage in the Philippines is far below the level needed to cover the basic costs of an average Philippine family. The minimum wage in one of the big export processing zones was about 120 euros per month in May 2008, while the basic living costs for an average family were 320 euros.

The Chinese minimum wage was raised in 2008, as a response to growing labor protest and growing inflation, but workers still have problems covering their basic needs and cannot afford to form a family or acquire a place to stay of their own. Most of the workers are migrant workers coming from poor rural regions whose objective is to be able to send money back home. In order to accomplish this goal they keep their own living costs at the lowest possible levels by staying in dormitories with several other workers and by eating in the factory canteen.

In one factory in the Philippines, which produces power supplies for Motorola and LG, a large number of apprentices are hired to keep costs down. They are only paid 75% of the minimum wages and do not get the extra bonuses and allowances which are paid to regular workers. In both countries workers complain about the rising food prices that eat up much of any eventual
pay increases. Moreover, food quality is low, and water and electricity supplies are unstable in some factory dormitories and canteens.

**Excessive working hours** – In both countries employees work extra hours to try to raise their salaries. Some workers state that they cannot refuse to work overtime. At one factory in the Philippines, which produces printed circuit boards for mobile phones, workers state that they need to have a very good reason to be allowed to go home after regular working hours. During peak periods they do not even get one day of rest per week, which is a violation of the principle rule of the Weekly Rest Convention of the International Labour Organisation (ILO).

In some cases workers are not allowed to go home until they have fulfilled the high set production quotas. At the end of 2007 workers that did not meet the targets within regular hours at a factory in Shenzhen, producing chargers for Nokia, Samsung, Motorola and LG, had to work “voluntary” overtime without overtime premiums.

In both countries the working hours at the plants are in violation of the ILO’s Hours of Work Convention and/or national laws. In China all factories exceeded the maximum 36-hour overtime limit per month stipulated in the Chinese Labour Law. In the factory that supplies Nokia, Samsung, Motorola and LG with chargers workers worked 80 hours per week during peak season, a gross violation of the Chinese Labor Law. In one factory in the Philippines, which produces for Motorola and LG, one apprentice worked 64 to 67 hours per week almost continuously – 25 days of day shift followed by 25 days of night shift. On the other hand workers at another factory in the same area had great difficulties covering their living costs when orders were few and there were no overtime earnings. During peak periods they often worked twelve hours per day six to seven days a week.

**Punitive fines** – Wage deductions, due to punitive fines, have been noted at all four factories researched in China. Even though these fines are not always illegal, they are based on subjective and unjust grounds, especially when workers are fined for mistakes or conduct related to the unhealthy working conditions offered by the employer, such as falling asleep at work or making mistakes because of the rapid manufacturing pace. At a factory that produces printed circuit boards for Nokia, Motorola, Samsung and LG, workers worked 12 to 13 hours per day 6 days per week during peak periods, but they were fined if they made mistakes or fell asleep at work.

**Disrespect of union rights** – The electronics industry has a history of widespread anti-union tactics. In both China and the Philippines, much of the electronics production is taking place in so called export processing zones or special economic zones. In the Philippines, these zones are also known as “no-union – no-strike zones”. Harassments of workers, dismissals and killings have been reported and less than 10% of the country’s electronics firms are thought to have unions. In a factory producing printed circuit boards for mobile phones, workers state that the management asked questions about union affiliations during the recruitment process and explicitly told them that unions were not allowed at the factory. The factory management denies this and states that the relationship with workers is good.
In China workers’ rights are gradually improving, particularly due to a new contract law that came into force in January 2008. However, the All-China Federation of Trade Unions (ACFTU) continues to hold a monopolistic position. The ACFTU is controlled by the Communist Party and often loyal to the employer and the government instead of to the workers. Its aim is that all private factories in China should be unionized by 2010.

Collective labor disputes, open protests, sit-ins and strikes have lately become more common in China. In 2007, thousands of workers were brutally dispersed by the police while protesting on the streets against poor working conditions at a factory producing chargers for Nokia, Samsung, Motorola and LG. Workers are increasingly ‘voting with their feet’, by changing jobs or returning to the countryside because of unacceptable working conditions. This has contributed to labor shortages in the Guangdong province of southern China – the heartland for electronics production.

**Health and safety problems** – Figures released by China’s Ministry of Health suggest that occupational disease is one of the country’s most serious public health problems at present. The legislation is relatively thorough, but during the last decades the government and the local authorities have put more efforts into creating a favourable investment climate than into protecting the health of workers, and inspections are too few. This is also the case in the Philippines, where the state has largely replaced inspections of large firms with a type of self-assessment system.

Workers interviewed for this report complain about muscle strains, eye problems, allergies, dizziness, exhaustion, burn injuries, cuttings, chest pains and weight loss. At one factory in Shenzhen, which produces printed circuit boards for Nokia, Motorola, Samsung and LG, workers state that they are not provided with sufficient protective gear while handling chemicals. In one department workers handling sulphuric acid do not find it possible to put on safety masks due to the tight work schedule. The management, however, claims that the workers are properly protected, and that any problems are due to the fact that the operators do not follow the company rules and regulations. The production process of electronics is highly chemical intensive and risks causing severe health problems, such as cancer and spontaneous abortions, if workers are not properly protected.

In some of the factories workers complain that the fast work needed to meet the quotas, as well as hot and badly ventilated factories, sometimes means that workers do not use the protective gear that they have been provided with. High speed work is therefore endangering the health of workers both directly – through exhaustion, muscle strains, cuttings, etcetera – and indirectly, when workers do not have time to put on the equipment needed.

At a factory producing components for Apple’s iPhone, as well as Nokia, Motorola and Sony Ericsson, some of the workers interviewed had not been provided with medical insurance, industrial injury insurance or retirement pensions by March 2008, even though the law requires this. Workers at the factory expressed concern about the heavy workload and related health problems like back pain, sore eyes, muscle strain and work stress. In areas such as the mouse testing workshop some workers complained about deteriorated vision as a result of long hours of
looking at computer screens. The company denies the problems and claims that the workers are now insured.

**Gendered hiring practices to avoid protests** – Most of the workers at the production lines are young women. In China they have migrated from the countryside to help support their families, earn money for another family member’s education or a wedding. Remittances sent back to families in rural areas have contributed to children’s education and to reducing poverty, but the young women and teenagers behind this process often pay a very high cost. The overall situation in the electronics sector of Guangdong falls short of the ILO’s goal on “decent work for all” that stresses values such as human dignity, security and freedom of expression.

Migrants often find themselves at the bottom of the social ladder in Guangdong. Moreover, different means are used by management to control the staff on the factory floor, including strategies based on gender and separation of workers who have migrated from the same areas. Female workers are preferred, since they are seen as less prone to stand up for their rights, and better suited for detail-oriented work. In some cases male workers from specific Chinese provinces are avoided, since they are labelled troublemakers. Some factory managers try to split social networks and avoid worker solidarity by making sure that workers who are on the same assembly line or live in the same dormitory do not come from the same province.

In the Philippines, women working for multinational electronics firms often earn more than workers in local factories or in the informal sector. Some multinationals also offer welfare benefits that the state is failing to provide. Women workers often state that they gained more control of their lives and an increased status within the family when they entered the high-tech industry. However, poor working conditions, sexual harassments and other violations of women’s rights are common in the export processing zones where the factories are located. Single women are sometimes preferred over married ones, so as to avoid having to pay maternity benefits.

While some researchers argue that the women’s situation in the Philippine export processing zones will change for the better as the industry upgrades to more advanced tasks, this is not evidently the case. In some factories, when the tasks become more advanced, male engineers and technicians are sometimes hired instead of women. Research also suggests that women are more often subject to lay-offs as more work becomes automated.

**MUCH OF THE SUPPLY CHAIN LEFT UNCONTROLLED**

The five biggest mobile phone companies have all adopted codes of conducts which state that human rights and the labor rights of workers will be guaranteed. However, the situation at the factories covered in this report shows that this is not the case. The industry is trying to monitor random samples of the suppliers that lie closest to them (so called first and second tiers suppliers), but much of the supply chain remains uncontrolled – despite the high environmental and human rights risks that are related to electronics manufacturing. The worst labor conditions are often found further down the supply chain. The factories covered in this report are first and second tier suppliers and yet unacceptable violations of labor laws, international conventions and company codes of conduct were revealed.
This study also shows that the different problems are often connected. In both China and the Philippines low minimum wages make it crucial for workers to work a lot of overtime. The excessive working hours affect their health negatively and most likely are an explanation of some of the mistakes that workers make. In China the mistakes made by the workers reduce the salary they receive. The high set quotas, combined with penalties for mistakes, make some workers skip the use of protective equipment that is provided in the factories. This exposes them to severe health risks due to the use of chemicals. Health and safety is not only about having the right equipment – but also about giving workers the opportunity to use it.

The possibility to improve the situation is largely dashed by the fact that anti-union tactics are common within the entire sector. It is therefore of utmost importance that electronics companies analyse how they can challenge these attitudes and support efforts to organize. Auditing and demands from buyers will without doubt lead to improvements in some areas. However, more profound changes and overall improvements will not take place until workers are given the full and unrestricted right to organize and state their opinions.

**CSR – A COST OR AN INVESTMENT FOR THE FUTURE?**

Suppliers often state that they are expected to raise labor and environmental standards at the same time as lowering production costs; an equation that bigger firms could handle if they want to but not always the smaller ones that often are found further down the supply chain. One manager, for example, says that the buyers calculate labor costs at a far too low level, while CSR managers demand better working conditions. Other studies also point out the inconsistencies of the buying companies’ actions and conclude that most suppliers regard CSR as a cost, instead of an investment that will result in more customers and orders. If improvements are to be made, the mobile phone companies need to bring in true incentives to CSR investments in Asia and not use obstructive purchasing practices. They also need to offer guidance to suppliers, and monitor and take responsibility for the effects further down the supply chain that is currently left uncontrolled.
<table>
<thead>
<tr>
<th>FACTORY</th>
<th>BUYERS</th>
<th>EX OF WORKERS' COMPLAINTS</th>
<th>PROFILE FOUND</th>
<th>SUPPLIER'S RESPONSE</th>
<th>BUYERS' RESPONSE</th>
</tr>
</thead>
</table>
| A       | Nokia, Motorola, Samsung, LG | • unprotected juvenile workers illegal working hours  
• illegal punitive fines  
• insufficient protective gear when handling chemicals  
• muscle stress, eye problems, skin-allergy, exhaustion  
• low food quality in the canteen | Page 32 | Annex 2 | Chapter 7 |
| B&C     | Nokia, Motorola, Samsung, LG | • restriction of workers’ freedom of employment  
• unpaid overtime  
• illegal working hours  
• punitive fines  
• insufficient protective gear and accidents  
• poor ventilation and temperature too high  
• unsafe dormitories  
• police brutality during open protests in 2007 | Page 35 | Annex 2 | Chapter 7 |
| D       | Apple, Sony Ericsson, Nokia, Motorola | • illegal working hours  
• punitive fines  
• back pain, sore eyes, muscle strains, work stress  
• no social insurances as of March 2008 | Page 40 | Annex 2 | Chapter 7 |
| E       | Motorola, LG | • low-paid apprentices and contract workers to reduce costs  
• excessive working hours  
• risk related to refusal of overtime work  
• health and safety issues | Page 52 | No comments received | Chapter 7 |
| F       | Maybe Samsung, Motorola, Sony Ericsson¹ | • excessive working hours  
• cannot refuse overtime  
• health complaints  
• insufficient protective gear when handling chemicals  
• anti-union tactics | Page 55 | Annex 2 | Chapter 7 |

¹ Workers state that they produce for these mobile phone companies, which is not denied by the factory management. However, the mobile phone companies have not been able to identify this factory in their supply chains, see further in section 6.7.2.
1. INTRODUCTION

36 mobile phones were manufactured each second during 2007. Last years the growth of the mobile phone market has been impressive. In 2006, a magic milestone was reached when one billion phones were produced in just one year.¹

In the shadow of the success stories of brand name companies, such as Nokia, Sony Ericsson and Samsung, for many electronics workers the reality is harsh. In 2006, makeITfair’s project leading organisation – SOMO – released a report about the working conditions of Chinese, Indian, Thai and Philippine workers, who manufacture the phones that are sold around the world. “The High Cost of Calling: Critical Issues in the Mobile Phone Industry” revealed severe labour rights and legal violations at factories producing items for the big mobile phone brands. This report is in one way a continuation of SOMO’s earlier work, published jointly by SOMO and SwedWatch, within the European makeITfair project.

The Information and Communication Technology sector is generally perceived as a clean industry employing highly skilled people who earn decent wages by doing advanced engineering, programming and different service jobs. This is, however, only one part of the reality behind the mobile phones that are sold and used around the world. What remains hidden is the labor force engaged in the manufacturing processes in developing countries – mostly young women working at the assembly lines for excessive working hours at low pay and often deprived of their rights. This study aims to describe their realities and present their views. It also analyses how brand name companies and consumers could contribute to accomplish much needed improvements.

¹ Cellular News, Over One Billion Phones Sold Last Year, 26 Jan 2007. The equivalent figure for 2007 was more than 1.1 billion phones shipped worldwide, IDC, Press release: IDC Finds Slower Growth in the Mobile Phone Market in 2007 While Samsung Captures the Number Two Position For the Year, 25 Jan 2008.
2. METHODOLOGY

Research for this report was conducted using both desk research and field research. Desk research included a literature review and further online research during spring 2008. In China the field research was carried out by Students and Scholars Against Corporate Misbehaviour (SACOM) during 2007 and 2008. In addition to this, SOMO and SwedWatch visited the factories mentioned in this report in Shenzhen and Dongguan in June 2008, to meet with company representatives. During this trip electronics workers and local experts were also interviewed.

The part about the Philippines is partly based on earlier research carried out by Workers Assistance Center Inc. of the Philippines, which was published by SOMO in 2007. In May 2008, SOMO researchers revisited Cavite’s export processing zone and talked to workers, local NGOs and unions. In total, 102 workers were interviewed at the six factories covered in this report. They were interviewed individually or in small groups at secure locations outside the factories and without the supervision of superiors. In addition to this, SOMO interviewed another 50 workers employed in the electronic industry of the Philippines to gain more information about working conditions in the sector.

Both the suppliers and the mobile phone companies that buy their components have been given the opportunity to comment on our findings and notify SOMO and SwedWatch about any factual errors. Their responses are found in the profiles of the different factories, in chapter 7 and in Annex 2 at the end of this report.

Due to delimitation purposes environmental issues were not included in the research. Please refer to other sources for information about environmental concerns on the manufacturing of electronics.¹

¹ In 2007, Greenpeace International published a report about the environmental effects of electronics manufacturing in China, Thailand, the Philippines and Mexico. The study includes analyses of samples at various production sites, where high levels of polluting metals and chemicals were found. See Greenpeace International, Cutting Edge Contamination: A Study of Environmental Pollution during the Manufacture of Electronic Products, Feb 2007.
3. THE GLOBAL MOBILE PHONE MARKET: GROWTH, MARKET SHARES AND TRENDS

3.1 HEATED HANDSET MARKET SLOWING DOWN
During the first few years of the 21st century the mobile phone industry experienced an extraordinary growth. In order to gain a bigger share of the market the leading brand name companies are presenting new functions and technical solutions for high-tech hungry consumers in richer countries as well as cheaper models for consumers in emerging markets where mobile phones have not been around for long.

The growing demand for mobile phones in emerging markets explains much of the recent growth. Today, more phones are shipped to countries in Asia, Central and Eastern Europe, the Middle East, Africa and Latin America than to the more mature markets that richer countries constitute. New innovations, a mobile life style and working patterns are other drivers for growth. People checking emails on the bus and communicating business decisions while waiting for the next flight have become a growing feature in city landscapes around the globe.

<table>
<thead>
<tr>
<th>Region</th>
<th>Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia/Pacific</td>
<td>34%</td>
</tr>
<tr>
<td>Eastern Europe/Middle East/Africa</td>
<td>19%</td>
</tr>
<tr>
<td>Western Europe</td>
<td>17%</td>
</tr>
<tr>
<td>North America</td>
<td>15%</td>
</tr>
<tr>
<td>Latin America</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Gartner

The market analyst IDC expects that the mobile phone market will continue to grow during the coming years, although at a somewhat slower pace. In 2007, production grew by 12.4%, but IDC expects the yearly global growth to be in single digits for the following years. The largest growth will probably be seen in the countries of the Middle East, Asia and Africa. While the European and the US market is described as pretty much saturated, only one Indian out of five has a mobile phone and among the Chinese consumers two out of five possess a handset. This means that there is still much room for expansion in this region.

The Swedish market can be mentioned as a contrast and quite typical for the developed world. Total Swedish sales decreased by 1% during 2007 in comparison with the year before. However,
the sales of 3G phones and smart phones grew by 11 and 38% respectively during the fourth quarter of the year.6

Future demand in countries within the EU and the US is mainly expected to come from consumers wishing to upgrade and replace their phones. Technological innovations are crucial for continued growth in these regions. Consequently, smart phones are being marketed with new multi-functions and higher price tags. The definition of a smart phone is a bit unclear, but it is often described as a mix between an ordinary mobile phone and a handheld computer. In 2007, the convergence of Internet and mobile communication was obvious. The recent introduction of Apple’s advanced iPhone is but one example. In its first 90 days on the market, Apple sold 1.4 million iPhones, or about 15,000 phones per day. Sales of smart phones increased from 50 to 100 million units between 2005 and 2006, but the growth rate is expected to slow down during the coming years.7 Another trend within the industry is “Green IT”, with companies starting to market some products as more eco-friendly.

At the same time, cheaper and simpler models are heavily marketed in emerging markets. The increasing importance of producing cheap phones for developing countries means that the average price of a mobile phone will most likely decline the coming years, a trend that makes it even more important to reduce production costs.8 Mobile phone components and manufacturing costs continue to fall. China has played and continues to play an essential role as a low-cost country for manufacturing, but other countries are popping up as competitive, low-cost and particularly low-wage options (see further in section 4).9

3.2 THE BIG FIVE
Five mobile phone companies currently dominate the market. Nokia is by far the largest, with a market share of almost 40%. 1.5 million Nokia phones are produced each day and the company currently sells more phones than the following three largest brands do together.10 According to industry analysts, Nokia is “always a step ahead” and there are several explanations behind the Finnish success story. Firstly, its dominant position allows the company to reap economies of scale. Secondly, Nokia’s handset range spans from very cheap to very exclusive models and is considered the broadest of any carrier. Another factor that explains Nokia’s success is the company’s dominant position in several important emerging countries in Africa and Asia. As already mentioned, these regions will contribute much to the industry’s future growth.

In 2007, Samsung overtook Motorola and captured the number two spot by reaching a 14.1% market share. At the end of that year Samsung was closely followed by Motorola (13.9%), Sony Ericsson (9%) and LG Electronics (7%).11 The competition between these “big five” is fierce. One analyst even describes this period of time as “the toughest time in the industry’s 25-year history”. Within a year Motorola lost half its market share, a defeat partly explained by the fact

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11 Ibid.
that the company missed out on significant growth areas, such as 3G, China and other emerging markets.

<table>
<thead>
<tr>
<th>VENDOR</th>
<th>UNIT SHIPMENTS IN 2007 (MILLIONS)</th>
<th>MARKET SHARE IN 2007 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nokia</td>
<td>437.1</td>
<td>38.2</td>
</tr>
<tr>
<td>Samsung</td>
<td>161.1</td>
<td>14.1</td>
</tr>
<tr>
<td>Motorola</td>
<td>159.0</td>
<td>13.9</td>
</tr>
<tr>
<td>Sony Ericsson</td>
<td>103.4</td>
<td>9.0</td>
</tr>
<tr>
<td>LG Electronics</td>
<td>80.5</td>
<td>7.0</td>
</tr>
<tr>
<td>Other</td>
<td>202.9</td>
<td>17.7</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1144.1</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: IDC.\textsuperscript{12} LG overran Sony Ericsson in the beginning of 2008. Whether LG’s lead will hold for the full year remains to be seen.

### 3.3 A Complex Web of Suppliers

Many consumers believe that it is the brand name company that has manufactured the phone they possess. This is, however, not always true. In 2007, 30.1 % of all mobile phones were designed or manufactured by so called contract manufacturers, unknown to most consumers, such as Flextronics, Foxconn, BenQ and Compal.\textsuperscript{13}

The web of contract manufacturers used to be a fragmented industry in the 1980s and early 90s but it has developed into a consolidated and quite mature industry with a few companies dominating the market. Some companies have withdrawn, while the strongest have gained strength through acquisitions and mergers and are able to deliver services at low costs.\textsuperscript{14}

Next to these firms, further down the supply chain, lie a wide range of other component manufacturers that produce parts for the final products, such as chips, microphones, batteries, etcetera. Some of the worst working and environmental conditions are found among the manufacturers further down the supply chain, since the brand name companies’ code of conduct seldom reaches this level and the mobile phone companies only monitor the top tiers suppliers.

The supply chains of mobile phone companies have indeed developed into highly complex webs over the years, with high numbers of suppliers around the globe serving assembly plants where the products are eventually put together. Outsourcing of final assembly has been a growing feature within the mobile phone sector and market analyst iSuppli estimates that mobile

\textsuperscript{12} Ibid. Shipments only include branded shipments and do not include OEM sales for all vendors. Mobile phones combining voice communications capabilities with pen or key pad handheld data features are also excluded from these figures.

\textsuperscript{13} iSuppli Corp, Outsourcing Strategies Separate Winners From Losers in the Mobile-Handset Market, 27 Feb 2008. For more information about the different types of actors within the mobile phone industry, please see Haan E and Wilde J, The High Cost of Calling: Critical Issues in the Mobile Phone Industry, Nov 2006, p 12-13.

phone companies will outsource 44% of their production by 2009.\textsuperscript{15} Still, the majority of the production will be kept in-house.

The degree of outsourcing of final assembly varies widely between different brands. In 2005 Sony Ericsson made the greatest use of contract manufacturing among the top mobile-phone brands, with nearly 66% of its production outsourced. At the other end of the spectrum were the South Korean companies, which produced nearly all of their mobile phones in house.\textsuperscript{16} Outsourcing of component manufacturing is, however, far more common.

\textsuperscript{15} Emsnow.com, iSuppli Predicts Limited Outsourcing for Mobile Phone OEMs, 11 Nov 2005.
\textsuperscript{16} Ibid.
4. FROM JAPAN TO TAIWAN, TO MEXICO, TO THE PHILIPPINES, TO CHINA, TO VIETNAM...

The manufacturing map of the electronic industry is constantly changing as companies search for ways to lower costs, reduce time to market and gain a competitive edge. In the early 2000s, manufacturing abruptly shifted from high cost regions in North America and Western Europe, particularly to low cost China. In 2006 less than half of global production took place in the US, Japan and Western Europe. Between 1995 and 2006 the Asia Pacific area’s share of global electronics production increased from 20% to 42%.\textsuperscript{17}

China is often described as the epicentre of electronics manufacturing. In 2007, 52% of all mobile phones were produced in Mainland China.\textsuperscript{18} Low production costs, technically skilled workers and a booming domestic market are important explanations of the Chinese attraction. However, as China is experiencing rising labour costs and pockets of labour shortages, other low-cost countries are on the rise, such as Thailand, India, the Philippines and Vietnam.

Moreover, brand name companies are interested in spreading the risks that emerge with too much focus on one country, risks that are related to the political situation, the development of the currency and other factors. It is also important to have production close to different domestic markets in Asia.

One example is India. During the last couple of years, the country’s low labour costs have made it attractive for electronics manufacturing. Labour costs are said to be 20 to 50% lower than in China. Moreover, India’s import duties are relatively high, which makes it logical to manufacture mobile phones for the Indian consumers locally.\textsuperscript{19}

Malaysia also offers good labour cost savings; about 40% less than the levels in Hong Kong and Singapore. Big companies serving the mobile phone industry, such as Flextronics, Jabil and PCA Technology, all have operations in Malaysia.\textsuperscript{20}

Intel, Foxconn and a number of other big actors have recently laid their eyes on Vietnam – within the industry called the next “Chiindia”. Korean and Chinese investors are attracted by low labour costs, fewer regulatory hassles and investment-friendly policies. Reportedly, the semiconductor company Intel has tripled its investments in the country to $1 billion and Foxconn has committed to invest $5 billion and employ 300,000 people within the next five years. The investments are also expected to attract Foxconn’s satellite producers to set up factories in Vietnam.\textsuperscript{21}

Other countries that are interesting for electronics manufacturing are countries in Eastern

\textsuperscript{17} Emsnow.com, US, Japan and Western Europe Continue to Lose Share of Global Electronics Production, 6 June 2008.
\textsuperscript{19} Rayner B, Manufacturing in India: Picking up the Pace despite the Speed Bumps, 14 Dec 2006.
\textsuperscript{20} Yos N, Evolving Strategies for Manufacturing in Asia, 20 June 2006.
Thailand is yet another important electronics producer that offers low production costs. Workers employed by the factories are often migrants from the countryside. They earn the minimum wage for full-time work, which makes their living conditions very poor. In this squatted area outside Bangkok electronic workers live for free to keep costs down.

Europe, because of their low costs, high-skilled labour engineering expertise and proximity to the Western European market. Mexico is also well positioned, as a country located close to the North American market.

Recently, the high degree of outsourcing to Asia and other regions that are far away from the end clients have also been questioned. Consultancy firm Technology Forecasters Inc. predicts that electronics companies may start developing regional strategies and start manufacturing their products closer to end markets, as a response to rising costs in Asia and to consumers’ demand to reduce carbon footprints.22


Silenced to Deliver: Mobile phone manufacturing in China and the Philippines
Expansions of big manufacturers in emerging regions, 2005-2007

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>LOCATION</th>
</tr>
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<tbody>
<tr>
<td>Flextronics</td>
<td>Brazil, Mexico, Ukraine, China, Malaysia</td>
</tr>
<tr>
<td>Jabil</td>
<td>Vietnam, Ukraine, India</td>
</tr>
<tr>
<td>Solectron</td>
<td>Czech Republic, Romania</td>
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<tr>
<td>Sanmina</td>
<td>Mexico</td>
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<td>Foxconn</td>
<td>Vietnam, Russia</td>
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<tr>
<td>Wistron</td>
<td>Czech Republic</td>
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<td>Innolux</td>
<td>Vietnam</td>
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Source: iSuppli Corp, December 2007

The following chapter describes the labour conditions at six factories in China and the Philippines, producing different components for the big mobile phone companies. Interviews with workers in China were conducted during the fall of 2007 and the spring of 2008, when some of the factory sites were also visited by SOMO and SwedWatch. The information about the Filipino factories comes from research conducted by Workers Assistance Center Inc. of the Philippines, which was first published in April 2007, detailing labour conditions at twelve factories producing electronics. SOMO revisited and interviewed workers at several of these factories in 2008.

Many of the labour problems that are facing workers manufacturing electronics in low-cost countries are similar. However, country contexts are also added to the following sections, which may explain possible differences and also the role that the electronics industry is playing in each country.

5. CHINA

5.1 THE ROLE OF THE ELECTRONICS INDUSTRY IN CHINA
Between 1995 and 2006 China’s share of global electronics production increased from 3% to 20.5%, an expansion that very much transformed the global electronics industry. More than half of the world’s mobile phone production and three out of four laptop computers are produced there. The electronics industry functions as one of the country’s major economic drivers. In 2006, the Information and Communication Technology (ICT) sector exported goods

24 Emsnow.com, US, Japan and Western Europe Continue to Lose Share of Global Electronics Production, 6 June 2008.
valued at $232 billion and employed more than 7.7 million people. Much of the work that is conducted is labour-intensive product assembly work, but in the last few years China has also succeeded in capturing more added value by attracting more high-skill manufacturing of chips and other electronic components.

5.2 WOMEN MIGRANT WORKERS DENIED BASIC RIGHTS
The Guangdong Province, in the south-eastern part of China, has long been the symbol of China’s economic strength and many electronics factories are located there. The proximity to Hong Kong helped turn Guangdong into a key export and production centre after economic reforms were introduced in China in the late 1970s. The province has China’s largest GDP and it is well-known for its labour-intensive manufacturing of toys, garments and electronics. Migrant workers – the so called floating population of China – make up more than 65% of the workforce. Most of them are women, expected by the employer to be less prone to stand up for their rights. They migrate from poor rural areas to the special economic zones of Guangdong cities, such as Shenzhen and Dongguan, in the Pearl River Delta, where they hope to make a better living, be able to send back money to their families or save some money for the future.

Long hours at low wages: Remittances sent back to families in rural areas have contributed to children’s education and finance living expenses in poor areas. Over the years, labour migration has clearly been part of national and local government’s strategy to create growth and reduce poverty. However, the young women behind the growth are paying a very high cost. As migrants they often find themselves at the bottom of the social ladder. Low wages, excessive and involuntary overtime, health and safety issues, and lack of union rights are among the main problems they are facing. The overall situation falls short of the International Labour Organization’s (ILO’s) goal on “decent work for all” that stresses values such as human dignity, security and freedom of expression.

The main problems are sometimes connected. As minimum wages have become standard, employees have to work excessive overtime to make a living. In some factories overtime earnings make up 30 to 60% of the final salary. Working 10 to 12-hour shifts in a standing position for six or seven days a week negatively affects the health of the workers. Wage reductions for falling asleep or making minor mistakes at the assembly lines are common, even though they are obvious consequences of the working conditions offered by the employer. These punishments reduce the salary levels even further.

29 For more information about the Decent Work Agenda, please refer to the ILO website, http://www.iit.org/public/english/ decent.htm
30 China Labour Bulletin, Falling through the Floor, Migrant Women Workers’ Quest for Decent Work in Dongguan, China, September 2006, p 15.
THE INSUFFICIENT MINIMUM WAGES OF SHENZHEN

In its Decent Work Agenda, the International Labour Organisation stresses the need for working conditions based on freedom, equity, security and human dignity. Fair wages and basic security are pointed out as central components in efforts to reduce poverty. At the same time, minimum wage levels in China rarely cover workers’ basic needs or give room for improvement in living conditions.

In Shenzhen, electronics workers find it very hard to live on the minimum wage that most employers offer as basic wages for full-time work. They have migrated to the industrial cities of Guangdong in order to be able to send money back to their families in the countryside, or to be able to finance an education or a marriage, which would improve their lives.

In 2007 the minimum wage of Shenzhen was set at 750 to 850 yuan per month (80 to 85 euros), depending on the location of the factory. At the end of that year, basic food (one breakfast, one lunch and one self-prepared dinner per day) cost roughly between 300 to 630 yuan per month (30 to 70 euros). Moreover, consumables were expensive. One bottle of shower gel cost between 10 to 15 yuan (about one euro). The simplest type of accommodation (one rented room/apartment outside the factory) cost 500 to 700 yuan a month (50 to 75 euros). Since the minimum wage – and sometimes not even the final wage that includes overtime payments – does not cover these costs, most employees find that they have no other option than to stay in the factory’s dormitories, where they get room and board for free or at low cost. In some places, the quality of lodging is good, while in others the housing is dirty and crowded, and the food unacceptable.

In July 2008 Shenzhen’s monthly minimum wages were increased to 900 or 1000 yuan (95 to 105 euros), depending on the location of the factory, which was equivalent to an increase of 17 to 20%. At the same time Shenzhen’s consumer price index (CPI) for six months of 2008 had increased by 7.3 % compared with the same period the year before. Prices of meat and vegetable oil had increased by 38.2 % and 39.1 % respectively. Consequently, a significant portion of the pay rise was consumed by rising living costs.¹


Health and safety: Figures released by China’s Ministry of Health suggest that occupational disease is one of the country’s most serious public health problems at present. The legislation on health and safety³¹ is relatively demanding, but in the last decades the government and the local authorities have put more efforts into creating a favourable investment climate than into protecting the health of workers, and inspections are too few.³²

Workers in the global electronics industry risk being exposed to hazardous or toxic substances and fumes. The production process is highly chemical intensive. Good ventilation systems and sufficient protective equipment are vital. Risks connected to the manufacturing of semiconductors, such as increased rates of cancer and spontaneous abortion among women workers, have been noted in international research, but similar studies on the Chinese semiconductor industry are lacking. The use of older equipment models, as well as efforts to reduce costs in order to compete on the global market, add to the problem.33 The EU RoHS-directive34 and its Chinese counterpart, which ban cadmium, lead, mercury, hexavalent chromium and some flame retardants, are positive efforts to protect workers’ health. Other health and safety problems related to the industry are eye strains and back pains, consequences of long hours of monotonous work in the factories.

5.3 WORKERS “VOTING WITH THEIR FEET”
Since 2003, the Pearl River Delta has experienced a labour shortage35, especially with regard to low-skilled migrant workers. According to the Hong Kong based organisation China Labour Bulletin, this has lead to the fact that workers have started to “vote with their feet” and move from one factory to another in a hunt for better conditions and higher wages. Since no true union rights exist and local authorities often fail to protect the inhabitants, changing jobs is sometimes one of the few means available to improve their situation.

In 2006 there were signs that some employers had started paying higher wages and also better wages during off-season, as a direct consequence of the labour shortage. However, China Labour Bulletin sees no sign of overall improvements from the employers’ side. Moreover, it is common for the employer to try to stop workers from quitting by withholding payments or blocking resignations in other ways. Another negative effect of the labour shortage is the risk that factory managers force the ones that stay to work even more overtime to compensate for the lack of workers.36

In some factories improvements are made as a consequence of the recent changes in the Chinese Labour Law (see further section 5.4.1) and the CSR demands of the buyers, the big brand name companies. Generally speaking, first tier suppliers seem to offer better working conditions than suppliers found further down the supply chain. Interviews conducted by the Business for Social Responsibility (BSR) and the World Bank connected Foreign Investment Advisory Service (FIAS)37 in 2007 showed that most first-tier suppliers were aware of the customers’ CSR demand and made improvements as a result.

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33 LaDou and others referred to in Manhart A, Key Social Impacts of Electronics Production and WEEE-Recycling in China, June 2007, p 4.
34 The RoHS Directive stands for “the restriction of the use of certain hazardous substances in electrical and electronic equipment”. The directive bans the placing on the EU market of new electrical and electronic equipment containing more than agreed levels of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants. It came into force on 1 July 2006.
35 There are several reasons for the continuing labour shortages. Ping et al (2005) point out poor working conditions. Other explanations mentioned are competition from special economic zones in other parts of China and the government’s pro-agriculture policies that make migration less attractive.
37 FIAS is an investment advisory service of the World Bank. It advises governments of developing and transition countries on how to improve their investment climates for domestic and foreign investors.
Assembly lines in China and most other Asian production countries are often filled with young women who perform the often very repetitive work for 10 to 12 hours a day during peak seasons. Women are preferred by employers as they are regarded as being “easy to manage”.

Credit: SACOM.
requirements, but most companies further down the supply chain, particularly smaller firms, had not yet been exposed to CSR topics.38 Moreover, several case studies, including those conducted by makeITfair for this report, show that workers are seldom aware of the content of customers’ codes of conduct although these writings aim at protecting them.

The difficulty of improving working conditions within the supply chain has led to new pilot projects by the industry, including training to increase employees’ knowledge of their legal rights, as well as efforts to improve the communication between management and the workers.39 The majority of the efforts done so far have been conducted in a top-down approach mainly through monitoring. Until now, only a few companies, such as Hewlett-Packard (HP), have reassessed their CSR strategies by trying to involve workers and labour non-governmental organisations (NGOs) in the process.

The suppliers often state that buyers demand costly social and environmental requirements without being willing to pay for the extra costs needed to realise them, which creates other problems.

“Our company is big enough [to afford the changes], but our suppliers cannot live up to the demands. They either have to cheat us and say that they are living up to the standards even though they are not – or they have to move to Vietnam or other countries,” says a manager at one of the Chinese factories covered in this report.

According to him, suppliers find themselves stuck between conflicting demands:

“Buyers and consumers want cheaper prices. We have to cut the price by 5% every year, but to implement the social environmental programs we need money. Sales are going down and the costs are going up.”

The BSR report (2008) concludes that most suppliers do not see it as commercially interesting to invest in CSR. They see CSR as a cost instead of an investment that will result in more customers and orders.40

Moreover, some mobile phone companies – such as Nokia, Motorola and Sony Ericsson – state that their suppliers should monitor suppliers further down the supply chain. However, some suppliers interviewed for this report do not think that this is realistic. During a meeting with company representatives at a factory that produces printed circuit boards for Nokia, Motorola, LG and Samsung (Factory A in section 5.5.1 of this report), managers said that they are checking quality and environmental issues at their own suppliers, but they started laughing when SOMO and SwedWatch asked questions about labour conditions further down.

40 Ibid, p 12.
5.4 INCREASING NUMBERS OF PROTESTS, BUT NO TRUE UNION RIGHTS

Buyers and suppliers, as well as NGOs and workers, point out worker participation as key to creating real improvements on the factory floor. However, the lack of independent unions and genuine collective bargaining in China clearly limits the possibilities in this regard. In the last years, labour disputes have become one of the single most important causes of social unrest in China. Demonstrations, sit-ins and strikes are taking place also within the electronics industry, where workers who speak up risk losing their jobs and being subject to brutal responses from the police.41

In view of this trend, the Chinese government and the local authorities have been forced to seek means to reduce tensions and avoid open protests. Workers’ rights have gradually improved on paper, with benefits ranging from the provision of free legal assistance, to allowing the children

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of migrant workers to attend public schools in cities. Increasing numbers of workers are seeking redress through government channels. From 1996 to 2006 there was an almost seven-fold increase in the number of labour disputes, from over 48,000 to over 317,000, with the number of collective cases rising from 3,150 to 14,000 over the same period. Moreover, the Labour Dispute Arbitration Committees (LDACs) are increasingly ruling in favour of the workers.

The number of cases has increased even more in the Guangdong province since the new Labour Contract Law came into force in the beginning of 2008. And there was a further sharp increase after the Law on Mediation and Arbitration of Labour Disputes came into force in May 2008. Both these new laws include positive improvements for the workers. The rulings from the LDACs are now binding and the time limit for filing an arbitration case has changed from 60 days to one year. The application fee has been taken away, which makes it economically possible for migrant workers to file a complaint. If the guilty part wants to appeal he has to pay the court costs. The awards are also getting higher, but the system has big problems coping with the increasing numbers of complaints. The state continues to mix repression with carefully chosen concessions to maintain stability and harmony.

5.4.1 AN OPENING FOR REAL WORKERS’ REPRESENTATION?

The Chinese Labour Contract Law, in place since January 2008, states that it is the employer’s responsibility to sign a collective labour contract with the employees’ representatives within a company. At the same time the law also says that the union should represent the workers during negotiations. However, in China the only legal union is the non-democratic ACFTU. The existing union affiliations of ACFTU, in particular the workplace-based unions, are often controlled by the management. The union committees tend to be loyal to the employer and the local government – not to the workers.

However, the new law also states that that workers can elect their own representatives if there is no union present within an enterprise. This is viewed by some analysts in Hong Kong and mainland China as an opening for authentic workers’ representation.

“The government has studied European democracies very closely. They recently held two international conferences on collective bargaining. This development could not have been foreseen only a couple of years ago,” says Robin Munro, Research Director of Hong Kong-based China Labour Bulletin that works to defend and promote workers’ rights in China.

China continues to show contradictory trends: workers’ groups within some companies have been deemed illegal: meanwhile companies are being pressured to sign up with the ACFTU, which aims at representing workers at 80% of the largest foreign firms by the end of September 2008.

42 Interview with Robin Munro, Research Director at China Labour Bulletin, 27 June 2008.
43 The All-China Federation of Trade Unions is structured at the local-municipal-provincial-national levels. The set up of a workplace union must be approved by union at a superior level, according to the Trade Union Law. In this way, the ACFTU is organized in a hierarchical, state-controlled structure.
The union committee in the workplace is considered the basic-level union branch of the ACFTU.
44 The Economist, Membership Required, 31 July 2008.
Moreover, different means are used by management to control workers on the factory floor, including strategies based on gender and separation of workers migrating from the same areas. As mentioned above, female workers are preferred since they are believed to be easier to control. In some cases male workers from certain provinces are avoided since they are labelled troublemakers. Other factory managers are trying to split social networks and avoid solidarity by making sure that workers who are on the same assembly line or live in the same dormitory do not come from the same province. One case study describes a system where migrant women at one factory were collectively punished if a male worker coming from the same area violated company rules.45

ACFTU

China has not ratified the ILO conventions on the right to organise and collective bargaining (no 87 and 98). No independent unions are allowed; instead the All-China Federation of Trade Unions (ACFTU) has the monopoly. The law allows affiliates to the ACFTU in companies with 25 employees or more.

ACFTU is subordinate to the Communist Party and the representatives are not elected in a democratic way. The right to strike was removed from the Constitution in 1982 on the assumption that the Communist Party had “eradicated problems between the proletariat and enterprise owners”.

As mentioned earlier, the national government is currently trying to reduce the increasing number of strikes and protests, which they view as a threat to the country. One of the strategies is to expand the number of ACFTU affiliates. The government’s goal is that all private factories in China should be unionized within 1.5 year; today the figure is only about 50%. A total of almost five million factories would have to be unionised in order to reach that goal, which will be an impossible task for the non-democratic ACFTU to accomplish. In most cases they will end up with union branches that exist on paper and in name alone.1

The grade of unionization in privately owned electronics factories is still very low. In 2006, after much resistance, Taiwanese-owned Foxconn in Shenzhen that manufactures iPods for Apple acknowledged an affiliate.2 Since then others have followed, but no industry statistics exist.

Source: ITUC, Annual Survey of Trade Union Rights 2007 and others.

1 Interview with Robin Munro, Research Director at China Labour Bulletin.
2 China Post, Union Set Up in Foxconn Plant in Southern China, 3 Jan 2007.

5.5 MANUFACTURING PARTS FOR OUR MOBILE PHONES: FOUR FACTORIES IN CHINA

The following case studies were conducted during fall 2007 and spring 2008 and describe the working conditions at four factories in Guangdong.

- Factory A produces printed circuit boards for mobile phone companies such as Nokia, Samsung, Motorola and LG.46
- Factory B and C manufacture chargers for Nokia, Samsung, Motorola and LG.
- Factory D produces Bluetooth products, camera phones and cellular accessories for Nokia, Motorola, Sony Ericsson and Apple.

5.5.1 FACTORY A – PRODUCING PRINTED CIRCUIT BOARDS FOR NOKIA, MOTOROLA, SAMSUNG AND LG

This company is a world-leading fabricator of printed circuit boards headquartered in Taiwan. Leading computer and consumer electronics brands, as well as semiconductor packaging companies, are found among the clients. MakeITfair has examined the working conditions at the company’s Shenzhen-based production facility, which produces rigid-flex printed circuit boards (PCBs) and high density integration PCBs.

Research in 2007-2008

MakeITfair’s Hong Kong-based partner Students and Scholars Against Corporate Misbehavior (SACOM) interviewed 29 workers at Factory A in the fall of 2007. SOMO and SwedWatch met with seven members of the company’s management in June 2008 in mainland China and also received written reactions to the findings.

Working conditions

Workforce

The majority of the factory workers are young women, aged between 16 and 30. The workers that are between 16 and 18 years old are juvenile workers, but those interviewed by makeITfair say that they are treated in the same way as adult workers and not protected from physically demanding or dangerous work tasks, which constitutes a violation of the Chinese Labour Law.

Salary reduction as punishment

Factory A provides its workers with base wages slightly higher that the local legal minimum standard of 750 yuan (79 euros) per month.47 The company pays 780 yuan (82 euros) to production workers and overtime is paid in accordance with the law.

Workers on average earn 1,500 to 2,000 yuan (158 to 211 euros) a month during peak season, including base wages, overtime premiums, full attendance bonus, allowances for meeting or exceeding production quotas, and subsidies.

46 Sony Ericsson is another client of this company, but states that they do not buy from the particular factory covered in this report.
47 All figures mentioned in this factory profile are from the fall 2007 to spring 2008.
Deductions from wages due to punitive fines are, however, significant (see the section on fines and punishment below). As a result, workers in general receive only 1,100 to 1,600 yuan (116 to 169 euros) a month despite excessive working hours.

120-180 hours overtime per month
Factory A adopts a two-shift work system. Both shifts often last 11 hours in total, including 3 hours overtime work. During peak season workers often work up to 12 to 13 hours per day, 6 days per week. This adds up to overtime of 120 to 180 hours per month, by far exceeding the legal limit of maximum 36 hours of overtime per month, as stipulated by the Chinese Labour Law.

Workers without representation
According to workers at Factory A there was neither a company union nor a representative worker mechanism in place during 2007, but the management held regular meetings with workers to discuss issues of common concern and gathered workers’ feedback and surveys on a monthly basis.

Unhealthy working conditions
In the staff manual of the factory, it is stated that the company has obtained ISO14000, QS9000 and TL9000 certifications and, additionally, has implemented programs to identify, evaluate, and control the workers’ exposure to health and safety hazards. However, SACOM found that occupational health and safety risks are embedded in the work process. On-job safety training is urgently needed but it is not provided to the workers, who lack the knowledge and the possibility to protect themselves from toxins and accidents.

In the departments for paint spraying, printing, panel cleaning and oxidizing, one of the most serious problems is that the workers are not provided with chemical-resistant gloves. Workers report that toxic chemicals penetrate through the gloves that they use, which causes itches and pain in their hands.

“I can’t bear it. I keep scratching until I put the ointment on my wound”, explains one worker.

It is vital that workers are provided with appropriate protective gloves when handling chemicals. The type of glove and material needed depends on the chemical in question. Training is also crucial since the gloves must be properly handled so that chemicals do not come into contact with the skin when the gloves are taken off. Moreover, the gloves only stay resistant to the chemicals for a certain period of time, which makes it important to replace them in time. Itches and pains, as described above, may consequently be explained by the wrong choice of gloves or by improper handling of those provided48.

Many workers complain about skin allergy and fear more serious diseases as a result of spraying and inhaling paint, which they do not know the chemical components of. In the printed circuit

board cutting department both the temperature and the noise level are very high. If the workers destroy a piece of a printed circuit board they will get fined. This threat and the strenuous pace make the workers who carry the circuit board to other stations not use gloves. Therefore they often cut their hands.

“I feel very tired and stressed at work. If there’s damage to the products, I will be fined. It is said that our production materials are worth tens of thousands! I won’t be able to pay for the loss. I am put under great work pressure”, says one factory worker.

Workers use sulphuric acid in one of the factory’s department. The workers who are refilling the acid are provided with gloves, but the work schedule is so tight that they do not put on safety masks and shoes at work because of practical reasons. The workers also complain about the strong choking smell of sulphur and they fear that it may damage their health.

Concentrated solutions of sulphuric acid are extremely corrosive. Contact with the eyes or the skin can cause serious permanent damage. The interviewed workers all suffered from skin redness and pains (hands, face, and shoulders). A male worker testified to a serious structural problem in Factory A. He asserts that workers’ safety and health are sacrificed for high levels of output. He prepares barrels of sulphuric acid, but does not have time to put on the protective equipment the employer provides him with.

The interviewed workers also complain about their work being very exhausting – and repetitive.

“I have lost a lot of body weight since I started working here. None of my co-workers, as far as I know, are willing to work under such hazardous working conditions for more than two years. I will ask for a swap or I will quit,” says one female worker.

Workers in several departments have to stand up through their entire shifts and they tend to suffer from muscle stress – in particular in the hands, shoulders and upper back of the body. The group that scans printed circuit boards testifies to highly repetitive work that requires them to, for example, double-click on a computer mouse up to tens of thousands times in a work shift. Other complaints include eye-problems stemming from looking at computer monitors while searching hard to find defects.

In summary, the health and safety conditions at Factory A, based on the experiences of the workers, are very poor and the need for training is urgent. The company management, however, claim that the workers are properly protected and that the health problems described above is due to the fact that the operators do not follow the rules and regulations that exist.

Question marks around insurance

The provision of insurance against workplace injuries or occupational diseases remains unclear to the workers who were interviewed. Some said that they were insured, while others stated the contrary. The company policy appears to be very confusing, as information on social security provision is not made transparent to workers. The company claims to have improved the information in 2008.
Fines as disciplinary measures
Managers fine workers for quality issues. Examples of wage deductions include 20 yuan (about 2 euros) for damage to one piece of printed circuit board and five to 10 yuan (50 cents to 1 euro) for forgetting to fill in the number of tested components or the date of inspection.

The managers also use a system of strict rules and fines to control the shop floor. For example, workers are fined one yuan (10 cents) for every minute late to work, 5 to 10 yuan (50 cents to 1 euro) for "misconduct" based on the judgement of the management, 50 yuan (five euros) for "small demerits," and 150 yuan (16 euros) for "serious offences." Managers reserve the right to dismiss workers outright for serious violations of rules. For more information about the fines at factory A, please refer to Annex 1 at the end of this report.

Arbitrary fines and punishment is a source of enormous stress to workers.

"My nerves become tense when I step onto the shop floor," remarked a 20-year-old female assembly worker.

The system of fines at Factory A is violating the buyers' ethical codes. Factory representatives claim that fines are forbidden at the factory since March 2007, but admit that some departments have not complied with this rule. The management has therefore repeated an announcement about this in June 2008. MakeITfair’s interviews with workers showed that the system of fines was still in force during the fall of 2007.

Canteen and dormitory
Workers can either eat in the factory canteen or outside. In the canteen, breakfast costs 1.4 yuan (15 cents), lunch 3.3 yuan (35 cents) and dinner 3.3 yuan. Some interviewed workers raised complaints about the quality of the food that is being served.

There are six dormitory buildings at Factory A. A total of 60 yuan (about 6 euros) are deducted from a worker’s monthly wages for basic lodging. Each dorm room houses 6 to 20 workers.

Codes of Conduct
In general workers are not aware about the corporate codes of conduct of buyers such as Nokia, Motorola, Samsung and LG. There are no postings of the codes on company display boards.

For a longer summary of the factory representatives’ response to makeITfair’s findings, please refer to Annex 2 at the end of this report.

5.5.2 FACTORY B AND C: PROVIDING NOKIA, SAMSUNG, MOTOROLA AND LG WITH CHARGERS
These two factories used to be owned by a German company but in May 2008 they were acquired by one of the world’s leading manufacturing service providers, which has its headquarters in
Singapore and facilities in 30 countries. The factories manufacture chargers for Nokia, Samsung, Motorola and LG.49

**Research in 2007-2008**

MakeITFair’s local partner SACOM interviewed eleven workers at Factory B and ten workers at Factory C during 2007. Some of the workers were then visited again by SACOM during spring 2008. In June 2008 SOMO and SwedWatch interviewed three factory workers and met with several company representatives and members of the management of the two factories to discuss the findings. MakeITfair has also received written reactions to the case study from the company.

**Working conditions**

**Workforce**

Over 90% of the production workers at the two factories are women. Most of them are between 18 and 30 years old, but some workers are as young as 16. They are rural migrants coming from Guangdong and other provinces such as Guangxi, Shaanxi, Sichuan, Hunan and Hubei.

**Restriction of workers’ freedom of employment**

While the Chinese Labour Law protects workers’ rights to freedom of employment SACOM’s research showed that the factory restricts workers’ choice of employment and increase the costs of a resignation. They do this by taking away workers’ identity cards for at least the first 15 days after recruitment, and through a policy that states that the workers have to buy back their own identity card (for 18 yuan/two euros) if they want to quit during a one-month probation period. The company claims that the ID cards are needed to process insurance for the workers and that the two euros are remitted to pre-paid insurance.

Workers are required to get a permission form to quit. If the form is not filled in, the company will deduct a half-month salary. Workers stated that factory managers tended to refuse to give permission to workers who wanted to leave. This is in violation of the Chinese Labour Law50.

The management withholds wages until the 15th of the following month. Interviewed workers witnessed numerous cases of unpaid wages after workers decided to leave. In its response to makeITfair, the company denies having violated the law in this regard.

**Low wages and unpaid overtime premiums**

Assembly workers on average earn 1,000 to 1,200 yuan a month (100 to 125 euros), including the bonus for full attendance and overtime premiums (without which 700 yuan/75 euros was the base monthly wage, 2006 – September 2007). However, in order to get this, the workers have to reach certain production targets. They explain that “one employee is given two people’s workload.” In mid-to-late 2007, under the new output demands, most of them had to work more than 12 hours a day but were not paid any overtime. If workers could not complete the tasks during regular hours, they were forced to do “voluntary” overtime work.

49 Based on information from company recruitment advertisement and workers interviews conducted by SACOM.

50 Article 31 of the Labour Law states that workers who give one month notice before quitting will have the right to quit and receive all pending wages.
During a meeting in June 2008 the company claimed that it has never been a company policy to use high production quotas as an excuse for not paying overtime wages, but they admitted that there have been cases where a line leader has punished workers that did not meet the production goals, which they promised to stop.

Illegal working hours
When new employees are hired the management prepares written contracts with legal standards (working hours at eight hours a day and 40 hours a week), but all the interviewed workers stated that they were exhausted from a lack of sleep and leisure time.

The majority of the day-shift workers begin at 7 am, take a lunch break, and continue to work until 10 pm. There are no days off when the deadline is approaching, which is a violation of the labour law. In total, monthly working hours add up to 320 hours, far exceeding the legal limits of 210 hours per month in Shenzhen.

During peak season, overtime is sometimes extended through the night. “I experienced a drastic loss of body weight. I can’t go to the toilet without a permit. I feel very sick,” said a 20-year old soldering worker.

Company representatives admit problems with too many working hours, but say that they are enforcing one mandatory rest day per week. They also say that workers can use the toilet if they inform the line leaders.

Fines for missing work
Managers at the factories use the labourers’ call for rest as a reason to give fines. The workers are punished severely if they miss work without permission. Workers suffer deductions of three days’ wages if they miss one day of work – approximately 100 yuan (11 euros). This effectively prevents absenteeism. The company says that it has recently changed this practice.

Workplace representation
The company has a union in place but the workers interviewed by makeITfair say that the union is only an appendage to the management system and that low-level workers are prohibited from participation, let alone decision-making. Company representatives refute this and say that the union is functioning well.

Lack of safety training
According to our interviews the company puts workers on the production line without safety training – in spite of the fact that many workers are exposed to health and safety hazards that require training. The employees interviewed by SACOM state that the workers on the soldering lines are not provided with protective face masks or gloves. In the soldering process industrial alcohol, solder flux and thinner are used. At poorly ventilated work stations the workers are not protected from inhaling the toxic fumes released during melting. Chemical odours do not dissipate for hours. Good ventilation is of utmost importance during the soldering process.
the ventilation is not sufficient, protective masks are needed to protect workers. In addition, workers describe that fingers and hands have been burnt by the soldering tool, especially when they sped up to reach the high production quota.

“Instead of alleviating the women workers’ worries about their reproductive health – by improving the safety standards and providing workers with on the job training – supervisors were primarily concerned about product quality and quantity”, says a young woman working at one of the factories for two years.

At the moulding department machine operators and trimming workers frequently report cutting their fingers and hands. For example, a 21-year-old female worker had her finger amputated and was hospitalized for 17 days.

Company representatives state that a health and safety training is given before an employee starts to work, but they admit that there is still room for further improvement.

Overall, the indoor temperature on the shop floor of the production and the packaging departments is very high and ventilation is poor. In blazing hot summers most Pearl River Delta economic regions face shortages of electricity and water. The interviewed workers say that the managers use reserved electricity power supplies to tend the production needs but turn off air-conditioners and fans. As a result the employees have to work under extreme temperatures. Some of the people interviewed recalled evenings when they felt severe headaches and began to vomit or fainted next to their work stations.

**Dormitory and canteen**
Most of the workers live in the collective dormitories at a monthly rate of 30 yuan (three euros). Eight to 12 workers share a dormitory room that is equipped with two electric fans and a washing place. To eat in the canteen they pay 2 to 5 yuan (20 to 30 cents) per meal.

According to the employees interviewed the electricity and water supply, especially in the summer, is very unstable. A female worker complained about the living conditions:

"When there’s no water for bathing, we have to wait in long queues with buckets to get water from the ground floor. The staircase becomes slippery and it is very dangerous. At night, I also find it difficult to sleep well. It is extremely hot."

**What is a code of conduct?**
None of the interviewed 21 workers were aware of the company’s code of conduct or the corporate social responsibility policies of the major buyers, namely Nokia, Motorola, LG and Samsung.

**Workers protesting on the streets**
In Xixiang and Shajing towns in Bao’an District (Shenzhen city) workers at Factory B and C went on factory-wide strikes more or less the same time in August 2007. On 20 August 2007, thousands of workers at Factory B in Xixiang shouted slogans and marched on the State Highway 107 in Bao’an District. At 7:30 am. about 100 riot policemen, fully armed with batons and shields, arrived to break up the demonstrators. The police were later joined by 500-odd traffic and plain-clothes police officers. At least four female workers were arrested and hundreds injured. Thousands of workers were in uproar demanding the police release their co-workers.

After a while factory management appealed to the protesters to go back to work and offered to negotiate on the wage issue, but the workers feared that if some of them were chosen as representatives these individuals would be discriminated and retaliated against. Somewhat later the riot police deployed armed units and dispersed the crowd by brutal force.
On the same day, night-shift workers at Factory C in Shajing joined the protests. At around 8 pm., hundreds of workers stopped work in one of the production departments to demand improvements in wages, working hours, and welfare. Instead of working on the lines, they tried to mobilize other workers to join them. The next day, on 21 August 2007, almost all day-shift workers at Factory C refused to work. The first batch of 500 to 600 workers marched towards Bao’an Road, causing a massive traffic jam. Thousands of workers later arrived when the police started taking disciplinary measures.

In a written statement to the factory boss and the Shenzhen labour officials, the employees demanded wage increases, subsidies for meals, compensation for workers performing dangerous tasks and doing night-shift work, various kinds of social insurance, clean drinking water at the factory and a reasonable level of overtime work.

The management responded by slightly adjusting the base wages to 730 yuan/77 euros per month (an increase of merely 30 yuan/3 euros), effective 1 September 2007. For night-shift workers, they gave a subsidy of 1 yuan/11 cents per night.

"After the strike they put the air-conditioning on and they started buying distilled water for us, but that only lasted one week and then they claimed that they fixed the water-supply. I wanted the things that we protested about to change: that the work load would lessen, that we would get the right payment, that the temperature would be ok in the workplace and the dormitories, that the water would be safe and taste good and other things. When so little was achieved I was very disappointed“, said one former female worker in June 2008.

For a longer summary of the company’s response to makeITfair’s findings, please refer to Annex 2 at the end of this report.

5.5.3 FACTORY D – PRODUCING CAMERA MODULES AND BLUETOOTH HEADSETS FOR APPLE, NOKIA, MOTOROLA AND SONY ERICSSON

This Taiwan-owned company manufactures camera modules for iPhones, Bluetooth headsets and other cellular accessories. The company also produces computer peripherals and imaging products.

Research in 2008

In May 2008 makeITfair’s partner SACOM and Swiss Bread for All published the report *High Tech – No Rights? – A One Year Follow Up Report on Working Conditions in China’s Electronic Hardware Sector* 52. They interviewed 19 workers at several departments of Factory D in Dongguan City, Guangdong Province. The description of the working conditions from the employee’s point of view is taken from this report. The company’s response and reactions are based on an interview with company representatives during a factory visit in June 2008, as well as written comments on this report that the company has provided to makeITfair.

52 The report is available at the websites of SACOM (www.sacom.hk) and Bread for All (www.bfa-ppp.ch).
Working conditions

Illegal working hours
According to SACOM’s interviews workers at Factory D are required to do 80 to 100 hours of overtime work per month. This is on top of the normal 168 work hours each month in Dongguan (8 hours x 21 days), which is a breach of the Chinese Labour Law. Workers reported that overtime on weekdays and Saturdays was mandatory and that they had to also work Sundays during peak seasons. To withhold the workers’ right to a rest day is also a violation of the Chinese Labour Law.

In a written response to this report the factory states that overtime is standard but voluntary. If workers are sick or do not want to work extra hours they can report this to their supervisor. They also state that the local authorities allow some flexibility regarding overtime during peak season.

Stress and lack of protective equipment
Workers from several departments interviewed by SACOM expressed concern about the heavy workload and related health problems like back pain, sore eyes, muscle strain and work stress. For example, in the mouse testing workshop some workers suffer deteriorated vision as a result of long hours of looking at computer screens. No protective glasses are provided to these workers. The company states that they offer physical examinations, as the law stipulates, and that they provide workers with proper personal protection equipment.

Fines as a way to control the workers
Disciplinary fines and wage deductions for product quality issues and other mistakes are experienced as very stressful by the interviewed workers. For example, in the logo-labelling process most workers face ergonomic hazards, exhaustion and stress. Workers say that if they do not meet the set target they will lose their bonus and if they make many mistakes they risk being fined.

“When the production order volume is large and the mice start to pile up in front of you, you get nervous and make more mistakes. If the inspector finds out that you have a lot of mice that aren’t done yet and there’s a lot of wasted labels in your dust bin, you’re fined a half-day’s salary. Our work is very stressful. When we punch out at night, we are totally exhausted”, says one female worker in the logo-department.

The factory management writes that the production targets are used as a basis for reward rather than punishment.

Denied individual contracts
In March 2008 SACOM found that workers at Factory D were still not given copies of their labour contracts, which is a violation of the Labour Contract Law that came into force on 1

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53 Article 41 of The Chinese Labour Law stipulates that the total extended working hours in a month shall not exceed 36 hours.
54 Chinese Labour Law, Article 38.
January 2008. The Human Resource Director says that the company now complies with the legislation, but that it took some time to enforce the new requirements.

No social insurance
Although some of SACOM’s interviewees started working at Factory D as early as in 2000, as of March 2008, they had still not been provided with medical insurance, industrial injury insurance or retirement pensions, a violation of the law\textsuperscript{55}.

Factory D states that since July 2008 – after SwedWatch and SOMO visited the factory – all workers are provided with occupational injury insurance, medical insurance and a pension, in compliance with the regulatory requirements.

Dormitory and canteen
The factory’s dormitory houses 12 persons per room. The cost per month for accommodation is 60 yuan (6.50 euros). The cost for three meals a day in the factory canteen was 5.2 yuan (55 cents) in early 2008. The dorms at Factory D are larger than the national regulations require\textsuperscript{56}.

\textsuperscript{55} Chinese Labour Law, Article 73.
\textsuperscript{56} The national regulatory requirement is 3.3 m\textsuperscript{2} per worker. In Factory D, according to interviewed managers, the average rate is 4.08 m\textsuperscript{2} per worker.
and the company also stresses that it provides a well-equipped community centre for its employees.

Lack of code awareness
The interviewed workers were aware of recent visits by some buyers. For example, in July 2007, workers assembling mice learned that HP representatives had come to the facility to interview their managers. As of early 2008, none of the workers interviewed had been informed of the Electronic Industry Citizenship Coalition (EICC) Code\(^57\), an industry code of conduct with requirements on human and labour rights as well as health and safety, which HP demands that its suppliers comply with. Neither were they aware of any of the other buyers' codes of conduct.

According to the EICC's code of conduct, a work week shall not exceed 60 hours per week, including overtime, which means that 80 hours of overtime per month is the upper limit. However, the code also states that “work weeks are not to exceed the maximum set by local law” – in China 36 hours. None of the four Chinese factories studied in this report respects this limit.

For a longer summary of the company's response to makeITfair's findings, please refer to Annex 2 at the end of this report.

\(^{57}\) The Electronic Industry Citizenship Coalition (EICC), www.eicc.info
6 THE PHILIPPINES

6.1 THE ROLE OF THE ELECTRONICS SECTOR
The Philippines is a country characterised by huge income gaps and widespread corruption. Despite being one of the fastest growing economies in South East Asia during 2007, one out of three Filipinos is living below the poverty line. 40% of households perceive that they are “food-poor” and if food prices continue to increase as expected during 2008, several more million inhabitants will end up living in deep poverty.58

During the last decades, the electronics sector has been an important driver for growth in the country. In 2007 it accounted for 63% of the exports, valued at $31 billion.59 Electronics companies currently employ about 460,000 people, up from 74,000 in 1992.60 These workers are mostly engaged in the manufacturing of components for different types of electronics products.

The Philippines is competing on the same battlefield as low-cost neighbours such as China, India and Vietnam, a fact that has made it of utmost importance for the country to find its own niche. While Philippine exports only account for about 2% of global electronics output, the country currently manufactures 10% of the world’s semiconductors and 50% of all 2.5-inch hard disk drives.61 The country has for decades been well-known for producing low-end products, but Philippines-based companies have also managed to capture more added-value by being an important player for more advanced assembly work the last years.

English is one of the official languages and engineers and technicians are relatively numerous. These are factors that make the country attractive for multinational companies. The world’s leading semiconductor vendor, Intel, established its first plant in the country in 1974 and a wide range of big brands have followed, such as Acer, Fujitsu, Hewlett-Packard, Dell, Panasonic, Lenovo and Samsung. In June 2008 Reuter reported that Samsung Electronics is considering investing $1 billion in a semiconductor plant in the country, plans that reflect that the Philippines remain competitive.62 US company Texas Instruments recently extended its operations in the country and is now producing chips that power 100% of Nokia’s mobile phones, 80% of Siemens’, 80% of Sony Ericsson’s and 70% of Motorola’s phones.63

There are 926 companies in the electronics sector in the Philippines, of which 72% are foreign owned, 30% are Japanese, 10% are Korean, 9% are US-owned and 7% are European. However, looking at employment figures, about half of the employees within the industry are working within US companies.64

59 Interview with Ernie B. Santiago, President of Semiconductor and Electronics Industries in the Philippines (SEIPI) on 2 June 2008.
60 Ibid.
61 Asia Times Online, Philippines Scoffs at China Electronics Threat, 16 Sept 2006.
63 Interview with Ernie B. Santiago, President of SEIPI on 2 June 2008.
64 Ibid.
Women workers in the Philippines often state that they gained more control of their lives and an increased status within the family when they entered the high-tech industry. However, working conditions in the industry are often poor: working hours are excessive, inhumane “disciplinary measures” are common and wages are low.
6.2 ‘DOCILE’ WOMEN HITTING CEILINGS OF GLASS

Some companies avoided the Philippines during the unstable years of Ferdinand Marcos’ dictatorship and the rule of Corazon Aquino. In the beginning of the 1990s the administration of Fidel Ramos made big efforts to attract foreign investors by introducing new investment-friendly laws and new incentives in so called special economic zones and export processing zones. As a consequence foreign investment really took off.

In 2004, 67% of all investments in the export processing zones were related to the electronics and semiconductor sector. As in China the majority of the factory workers are women, who are perceived to be easy to manage and better suited for detail-orientated work. Women working for multinational electronics firms often earn more than workers in local factories or in the informal sector. Some multinationals also offer welfare benefits that the state is failing to provide. Women workers often state that they gained more control of their lives and an increased status within the

65 A special economic zone is a geographical region that has economic laws that are more liberal than a country’s typical economic laws. An export processing zone is one or more areas of a country where certain trade barriers such as tariffs and quotas are eliminated and bureaucratic requirements are lowered in order to attract new business and foreign investments.

66 ICFTU, Export Processing Zones in the Philippines SMS-ing Against Exploitation, in Trade Union World Briefing No 14, November 2005.
family when they entered the high-tech industry. However, working conditions are often poor. Even though quite important variations exist between electronics firms in the export processing zones, working hours are in general excessive, inhumane “disciplinary measures” are common and wages are low.\(^{57}\)

While some researchers argue that the women’s situation will change for the better as the industry upgrades to more advanced tasks, sociologist Steven McKay’s research indicates that this is not evidently the case. Job assignments continue to be based on stereotypes. When the tasks become more advanced in some factories, male engineers and technicians are hired instead of women. Women are also more often subject to lay-offs as more work becomes automated. This glass ceiling may pave the way for a masculinisation of the workforce in the years to come. If the model of the electronics worker used to be a patient woman with nimble fingers, strong men involved in technical high-skilled processes have recently been depicted by the Philippine industry association to market the country’s labour force. Potential opportunities to remove women from lower-level and secondary positions remain unfulfilled, concludes Steven McKay in his research.\(^{68}\)

Despite laws that prohibit gender discrimination, the International Trade Union Confederation reports sexual harassments, pregnancy tests and other violations of women’s rights in the Philippine export processing zones. In some factories single women are preferred over married ones, allegedly because managers want to avoid paying maternity benefits.\(^{69}\)

The Philippines has ratified all the ILO core conventions, but in 2004 the principle of government labour inspection for workplaces with more than 200 workers was abandoned. Instead bigger companies should “check” themselves at least once a year through an employer-worker committee. This is also the case at companies where there is a union that has registered a collective bargaining agreement. Spot-checks of factories can be authorised, but are not required.\(^{70}\) Moreover, anti-union tactics are common and supported by the government as well as by local authorities. Export processing zones are widely known as “no-union, no-strike zones”, even though exceptions exist.

### 6.3 ANTI-UNION TACTICS

The Philippines has ratified the ILO’s core conventions on union rights, but in reality workers trying to organise are facing severe problems due to law restrictions, police brutality and anti-union management practices. According to the International Trade Union Confederation, plus unions and labour support organisations in the Philippines, the government interferes to the benefit of the employer instead of taking a neutral stand during conflicts. Local unions report intimidations, dismissals and killings of union leaders in the export processing zones.

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\(^{68}\) McKay S, Hard Drives and Glass Ceilings: Gender Stratification in High-Tech Production, published in Gender & Society, Vol 20 No 2, April 2006.

\(^{69}\) ICFTU, Export Processing Zones in the Philippines SMS-ing Against Exploitation, in Trade Union World Briefing No 14, November 2005.

\(^{70}\) ITUC, Annual Survey of Trade Union Rights 2007.
Less than 10% of the country’s electronics firms are unionized.\textsuperscript{71} Research conducted by the Workers Assistance Center Inc. (WAC) in 2006 revealed several issues that contributed to the low number of unions in the electronics sector in the Philippines\textsuperscript{72}:

- Company management explicitly prohibits the workers to join a union. According to most of the workers, their opinions about union organisations are asked during the hiring interview, to determine which ones who are likely to form or join a union. During orientation, the workers interviewed were discouraged by the management from joining or organizing unions and they predicted job losses by saying that a company closes or relocates whenever a union is organised.
- Employers also conduct background checks before hiring, to identify workers who have a history of union participation. There have been cases where applicants were made to sign blank papers, unwittingly waiving their right to join unions.
- Applicants are commonly required to obtain an endorsement from a local official such as the village chief, the mayor or a higher official. These officials are expected to ensure that the worker will not eventually “cause trouble” or endanger the union free environment.
- Employers often use technical manoeuvres to question and delay the formation of unions including the holding of certification elections (CEs), which establish a union’s right to represent workers in collective bargaining with management. Some companies also refuse to bargain when the certification election has been successfully accomplished.
- Before the CE has taken place, the union is required to register with the Department of Labour and Employment. The documentary requirements include the list of officers and union members. This exposure of names to the company management places the officers and members at risk of discrimination, harassment or dismissal as a result of their attempts to form a union.

Interviews with 58 workers by SOMO in May and June 2008 confirmed these findings. A majority of the workers mentioned having been questioned about their knowledge of and sympathy for unions when they applied for a job. It is common knowledge among workers that one has to deny any knowledge of unions and that organising is dangerous. Most workers interviewed said they did not think that their management would allow workers to organise, most knew examples of workers being dismissed for organising activities and several mentioned explicit statements by management against unionisation. Although there are not many unionised factories within the sector, in those factories that are unionised, the working conditions are often better in terms of job security, wages, and health and safety issues.\textsuperscript{73}

\textsuperscript{71} McKay S, Hard Drives and Glass Ceilings: Gender Stratification in High-Tech Production, published in Gender & Society, Vol 20 No 2, April 2006, p 230.
\textsuperscript{73} Interview with Reynaldo Rasing from the Labor Education and Research Network (LEARN) on 21 May 2008.
SUPPRESSING EFFORTS TO FORM A UNION

In 2003, a union was established at factory G in the EPZ Technopark in Laguna, as workers were experiencing harsh treatment and there were lots of complaints regarding low salaries, compulsory overtime and other issues. The management did, however, not accept the union and complained to the Department of Labour, which finally reversed the approval of the union. The workers in turn appealed to the Supreme Court, where they won the case in April 2004. Still, the factory management refused to acknowledge and negotiate with the union.

Since April 2004, the workers have staged protests against the management’s anti-union tactics on several occasions. The management hired fully armed guards that patrolled inside the production areas, accompanied the workers on buses and followed those who were active union members.

On 16 November 2004 the workers organised a protest at the back of the company, outside the factory. The security guards accused five active union members of having stolen a camera and those workers were dismissed. On 30 November 2004 there was yet another protest, this time against the dismissal of the five workers. What started as a picket during lunch hour turned into a strike – provoked by management who closed all the production lines and sent workers outside the production area. The workers were kept inside the factory premises and were not allowed to leave. The police arrived, both national police and private police working for the exporting processing zone, and workers were beaten by the security guards and caught in nets. Moreover, water cannons were used against the protesters. After 44 hours the workers could leave the factory premises and they went home.

Later on more than 120 workers were not allowed to enter the factory. They were sent on forced leave and ultimately dismissed. Several workers have since sought redress. The case is still pending; four years later, there is still no union at the factory. The company produces appendage parts for mobile phones, computers and other products.\(^2\)

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1 This section is based on SOMO interviews with former members of the union and ex-workers of the company in July 2008.
2 WAC’s research study from 2006. MakeITfair has not been able to get more detailed information about Factory G’s customers.
**ANOTHER WAY OF DOING IT: WORKERS INFLUENCING CONDITIONS IN LAGUNA**

Where there are unions in the factories, who negotiate Collective Bargaining Agreements (CBA), the conditions are generally better, regarding wages, overtime, consultations of workers in important changes for the company, etcetera. Factory H has had a union for 25 years. The company was until 2006 owned by Philips (Netherlands), who sold the semiconductor activities at the beginning of 2006 to a private equity firm and several investors, still keeping a share of nearly 20% in the company.

The union has 1,500 members at present, composed of quality inspectors, laboratory assistants, assembly material controllers, technicians and production operators. In April 2008 the union concluded its 9th CBA negotiations for the year 2008-2010.

In the park, in Laguna, as in other export processing zones in the Philippines, there is a “no-union, no-strike” policy. Factory H used to be in Manila but later moved to this specific zone, just as two other unionised companies in this zone did.

In an interview with several union members they mention that the relationship with management is quite good. They have their disagreements, of course, and there are outstanding issues. The union has, however, been able to negotiate several of these issues through the CBA and regular monthly meetings with human resources management. For example, the latest CBA stipulates that the company will not employ more than 10% of the workforce on a contract basis, plus have a maximum time of six months for the contract workers and four months for workers on probation. After this time period workers will become regular workers.

The starting wage is now the minimum wage, about 4 euros per day, and there is a yearly increase. Overtime is voluntary. There was a disagreement last year about introducing working days of 12 hours, and the union stopped the introduction. Moreover, there is a Management Safety Committee with regular monthly meetings, in which four union representatives are allowed to attend.

Nokia, Apple, Bosch, Dell, Ericson, Flextronics, Foxconn, Philips, Samsung and Siemens are among the company’s clients.

**6.4 WORKING OVERTIME TO COVER BASIC LIVING COSTS**

Most workers are not paid more than the minimum wage. The minimum wage levels are set regionally so there are differences between the minimum wages paid in different export processing zones. The workers interviewed by SOMO in May and June 2008 complained that the regional wage levels did not take into account the costs of living but were used as an artificial
incentive to attract business to the province. Most workers need the overtime pay to be able to make a living and workers move to other factories when the hours of work decrease. During SOMO’s interviews in May and June 2008, several factory managers gave this as a reason for keeping the working hours at incredibly high levels, up to a working week of 84 hours, for months on end. The management is not willing to discuss the wage level though; they feel this is up to the government to amend. In May, the minimum wage level in the province of Cavite was 282 pesos (about 4 euros) per eight hour work day, equivalent to 7,332 pesos or roughly 120 euros per month74.

Worker interviews conducted for this report, as well as other reports published by SOMO75, show that the minimum wage is nowhere near enough to live on. A male employee, working through an agency for a factory that produces power supplies for Motorola and LG Electronics (Factory E in section 6.6.1), says that “it is not possible to have a family on this wage”.

Young workers without a family usually live in boarding houses where they pay per room and share other costs like electricity. Workers that get married either live with their parents or hire small, one or two room apartments or houses. SOMO’s researchers visited several of the houses, which were on average 8 m², without a private toilet, bathroom or other facilities. Usually there was only one bed in the room, and a small table.

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<thead>
<tr>
<th>REGION</th>
<th>CAVITE</th>
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<tr>
<td>Daily minimum wage*</td>
<td>282</td>
</tr>
<tr>
<td>Daily food needs (family of six)</td>
<td>225</td>
</tr>
<tr>
<td>Daily living wage (family of six)</td>
<td>783</td>
</tr>
</tbody>
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* The sum of money is before taxes and social security payments have been deducted. Over time earnings and bonuses are not included.

The workers who were interviewed by SOMO in May 2008 complained about the rising transport prices and the increasing cost of rice. NGOs and trade unions stated that a small family would need 700 to 900 pesos (11 to 15 euros) per day to cover basic needs, a figure that was confirmed by the National Wage and Productivity Commission (NWPC). According to the NWPC, a living wage for a family of six was 894 pesos (15 euros) per day in the Manila region and 783 pesos (13 euros) in the province of Cavite in June 2008. 229 and 225 pesos – about 4 euros – were needed per day to cover food costs alone76. Consequently, basic living costs for an average Philippine family are not covered if both parents work full time in the electronics sector and earn the minimum wage.

74 The Philippine authorities only present daily minimum wages. The monthly minimum wage mentioned in the text is based on a normal working month of 26 days.
75 See for example SOMO, Corporate Social Responsibility Behaviour of Multinational Corporations in the Global Information and Communication Technology Supply Chain in the Philippines, April 2005.
6.6 CONTRACT LABOUR ON THE RISE

In the Philippines there is a growing trend towards ‘contractualisation’ in the electronics industry. The company employs the minimum number of skilled workers and will hire other workers, often for jobs that need fewer skills, on a contractual basis. Companies also deal with the fluctuations in orders by only employing a basic amount of workers and adding workers in periods when the demand from the buyers is strong.

In interviews conducted by SOMO with workers, NGOs and trade unions it became clear that different forms of contract labour are on the rise. In several companies new workers are only hired as contract workers, with no chance to become regular workers at the company. These contract workers are either hired directly by the companies or through labour agencies.

By hiring workers on contractual basis the company can terminate the services at any time. The workers have no security of employment and will be kept on their toes; they have to perform at 120% just to keep their job. Workers employed will consequently be reluctant to complain or refuse overtime work. In most of the companies workers hired on a temporary basis, either directly or through an agency, do not get paid vacation days or paid sick leave. They do not get incentives like production and attendance bonus or allowances for meals and transportation.

In several factories workers are hired as apprentices and paid only 75% of the mandated minimum wage, which is allowed under the Philippine law, yet unfair to the workers, as several of them already have previous knowledge and experience in other factories.

Several workers interviewed in May and June 2008 had as their biggest wish that they would become regular workers and thus get sick leave and vacation days as well as allowances and bonuses.

6.7 PRODUCING PRINTED CIRCUIT BOARDS AND CHARGERS: TWO Factories IN THE PHILIPPINES

In May 2008 employees at several electronics factories located in one of the country’s export processing zones – the Cavite zone – were interviewed by SOMO researchers. The working conditions at two of these factories are presented below.

Factory E produces power supplies for mobile phone companies such as Motorola and LG.

Workers interviewed at Factory F state that they produce for Samsung, Motorola and Sony Ericsson. However, these companies have not been able to identify the factory within their supply chains.

6.7.1 FACTORY E

This company is a subsidiary of a US global manufacturing and technology company with 265
manufacturing locations worldwide. It established its manufacturing plant in Cavite’s export processing zone in 1994. In 2008, the company set up yet another facility in Laguna, an export processing zone located next to the Cavite zone. The company produces power supplies for computer and mobile phone companies. Nokia, Motorola and LG are mentioned by several of the workers. However, Nokia state that the company does not buy components from this supplier.

**Research: 2006 and 2008**

The descriptions of the working conditions at factory E in Cavite are based on the Workers Assistance Center’s research from 2006 and follow-up interviews with four workers conducted by SOMO during a field trip to the Philippines in May and June 2008. SOMO also tried to arrange an appointment with the company management, through emails and numerous phone calls, but did not secure an appointment.

**Working conditions**

**Apprentices and agencies to reduce costs**

The company uses a substantial amount of workers employed through agencies as well as apprentice labour. The apprentices are only paid 75% of the minimum wage, which is legal under the Philippine labour laws, yet the system as a whole is unfair to those workers who are hired as apprentices despite having previous knowledge or experience regarding production. One worker interviewed in 2006 says that she was hired as an apprentice operator even though she already had undergone an apprenticeship for the same type of tasks at the company where she previously worked.

The highest wish of many of the workers is to become directly employed by the company as a regular worker. However, employment on a temporary basis and through agencies is the trend. Workers employed through agencies are paid the minimum salary. Neither apprentices nor agency workers get the extra bonuses or food and transport allowances that the regular workers do.

**Excessive working hours**

According to one employee, workers have to work for 12 hours when there is no replacement. This may happen about four days per week. For a large part of the workers working hours are beyond the internationally accepted maximum working week of 48 working hours. According to the workers interviewed the total working hours may be well beyond 60 hours per week at Factory E.

One female worker, who is working for factory E as an apprentice, mentions that she usually works between 9 and 12 hours per day. In total she works between 64 and 67 hours per week, almost continuously; 25 days in day shift followed by 25 days of night shift. During peak periods

78 The ILO’s Hours of Work (Industry) Convention states that the working hours shall not exceed eight in the day and 48 in a week. It is allowed to employ persons for shifts in excess of eight hours per day and 48 hours per week, but only if the average number of hours over a period of three weeks or less does not exceed eight per day and 48 per week (article 2c). However, the Philippines has not ratified this convention and Philippine law sets no limit on overtime hours (Philippine Labour Code, articles 83 and 87).
workers will sometimes have to work well beyond 12 hours per day, sometimes so late that workers are being forced to take the next day as a vacation day. Workers interviewed think this is very unfair, since it limits their possibilities to choose vacation days of their own.

If workers do not want to work the four hours overtime the line leaders will punish them for insubordination. Workers interviewed state that they risk being suspended for a day if they refuse working overtime. In the end they may lose their jobs.

**Difficult to support a family of your own**
Regular workers are paid the minimum wage or a little beyond, while apprentices are paid below the minimum wage. Both in 2006 and 2008 workers stated that the wages they receive are far from enough to live on. One male worker mentions that he has been working for factory E through an agency for three years. He is living with his wife and his young daughter together with his parents. He cannot afford a house of his own. Four families are living in his parents’ house at the moment.

**Health and safety**
The interviewed workers state that some parts of the company are too hot. In the factory they work with chemicals like isopropyl alcohol (IPA), adhesives, residue, flux, and solder paste. The workers work with lead free solder as well as with leaded solder, depending on which model they
manufacture. The chemicals can be poisonous and endanger the health of workers if they are not handled with appropriate protection.

There is a yearly training on the most hazardous products and ingredients. However, one worker who handles chemicals states that she is only provided with a face mask of cotton, which she fears is insufficient. If ventilation is not sufficient in a factory, workers should be provided with filter masks instead. The same worker also says that workers handling chemicals do not use gloves for several tasks.

One worker would like to get regular medical check-ups. He is employed through an agency, but neither the company nor the agency provides this.

Since December 2007 free purified drinking water is provided; this is an important improvement as the workers had to pay for drinking water before.

Codes of conduct
None of the workers have seen the code of conduct of the EICC or of the buyers. Most workers are aware of company rules and regulations, but they only cover issues regarding quality and targets, as well as instructions on how to work with hazardous substances.

“When a new buyer places orders the workers get instructions on how to handle the new model, not on codes of conducts of working conditions”, says one female worker.

The mother company of Factory E has been provided with the information presented above but has not commented on the findings.

6.7.2 FACTORY F
This fully Japanese-owned company employs about 900 production workers who make flexible printed circuit boards for different products, such as computers, TVs, hard disks, TV slides, mobile phones, etcetera. About 90% of the employees are women.

Workers interviewed by makeITfair state that they produce components for phones of Samsung, Motorola and Sony Ericsson. This is not denied by the factory management. However, Samsung and Motorola state that they have not been able to identify the company in their supply chains. Sony Ericsson state that Factory F is not one of the company’s first tier suppliers, but will investigate to see whether the company may be found further down in its supply chain. The workers state that they used to manufacture for Nokia’s N95, but Nokia states that Factory F is no longer producing for them.

Research in 2007 and 2008
The Philippine NGO Workers’ Assistance Center Inc, WAC, interviewed workers from factory F in 2006. In May and June 2008, SOMO and WAC interviewed three factory workers from
the company. SOMO also approached the company management by email and by phone. An appointment was finally scheduled, but ultimately cancelled by the management due to time constraints. The research of 2008 confirms the findings of the WAC study and indicates that labour conditions have not improved in the factory. The factory claims, however, that there have been improvements, especially regarding health and safety.

**Working conditions**

**Wages and benefits**

When SOMO conducted the interviews in May 2008, the basic wage at the factory was the minimum wage of 282 pesos per day, equivalent to about 7,300 pesos (120 euros) per month, before taxes and social security payments have been deducted. A living wage for a family of six was about 20,000 pesos (320 euros) per month in mid 2008. Wage increases at the factory are yearly and based on performance. Seniority pay does not add a substantial amount; after having worked for the company for six years one worker received 311 pesos (4.95 euros) instead of 282 pesos (4.48 euros) for an eight hour work day.

When the interviews were conducted, at the end of May 2008, there had been no overtime work during the last two months. Workers felt this to be problematic, as this lowered their final income. They only received about 3,000 pesos (50 euros) for 15 days, after taxes and social security costs had been deducted.

The workers get paid a 13th month per year, as the law stipulates. When they have full attendance – without ever being late for work or having any sick leave – they receive a quarterly bonus of 300 pesos (5 euros) or a yearly bonus of 1200 pesos (20 euros). When they work overtime they get 20 pesos (30 cents) as meal allowance.

**Impossible to say no to overtime work**

In June 2008 the workers had to work 12 hours per day, six or seven days per week. According to the ILO’s Weekly Rest Convention, workers should enjoy a period of rest comprising at least twenty-four consecutive hours per week. During each eight-hour shift the workers have two breaks, one of 30 minutes one of 20 minutes. In a 12-hour shift they get one break extra. The workers interviewed state that they cannot refuse to work overtime and that they need to have a very good reason to be allowed to go home after regular working hours. The factory, however, says that overtime is voluntary. They admit that the distribution of overtime is uneven but says that overtime is based on customers’ orders and therefore beyond their control.

The workers are entitled to eight days of vacation leave per year and every year of work will add a day to this. Workers interviewed by makeITfair state, however, that it is very hard to take vacation in practice. Even when workers can present a very good reason for wanting to take a few days off, it is often refused.

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82 The Philippine authorities only present daily minimum wages. The monthly minimum wage mentioned in the text is based on a normal working month of 26 days.

83 ILO Weekly Rest (Industry) Convention, article 2:1. The Philippines has not ratified this convention.
“Why give vacation days when you can't use them?”, says one worker.

If workers do not take out their vacation days, they get the equivalent money in cash. The factory states that vacation leave can be allowed anytime but that the workers have to follow a certain filing procedure. The company also writes that it is more generous regarding vacation leave than the Philippine law requires.

Complaints about health problems
The workers who clean plates complain of swollen tonsils, chest pains, dizziness and eye problems. Many chemicals risk irritating the mucous membranes in for example the throat. This may explain symptoms such as swollen tonsils. Moreover, different types of solvents used in manufacturing may cause dizziness if workers are not properly protected.84

Workers handling chemicals at Factory F are provided with goggles to protect their eyes, but one worker says that when it gets too hot they do not always use them. Workers feel that the protection is not enough as they suffer from so many health problems.

Workers are trained on safety issues and fire drills. On their work stations there is information about the procedures they should follow if the solution gets on their hands or in their eyes. They have to stand up working all day. Only pregnant women are allowed to sit down and they are usually transferred to easier jobs.

Company representatives state in their reply that they provide workers with appropriate protective equipment. They also write that the health and safety conditions at the factory have improved since the factory acquired an OHSAS 18001 certification in December 200785. According to the company, improvements include workers education and consultation, ventilation, awareness of ergonomic hazards and other risks.

Monitored while trying to meet the high quotas
The workers have to fulfil a quota per day and they find it very hard to be able to finish the job on time. One worker told how she has to clean 14,000 printed circuit boards during a 12-hour shift:

“The job is not very difficult, but standing up during the whole day is very strenuous. We are constantly being monitored on a large board, every hour.”

Workers fear that they may lose their jobs if they make too many mistakes. Factory management does not think the monitoring is a problem.

“The daily target given to employees was based on the result of each employee's time and motion or time study. The monitoring of daily output in manufacturing industry and posting of result is

85 OHSAS 18001 is a management system designed to enable an organization to control health and safety risks and improve its performance.
generally practiced in any manufacturing firm”, writes the company’s Human Resources Assistant in her comment on the report.

**TEENAGERS AND YOUNG WOMEN SUPPORTING EXTENDED FAMILIES**

24-year old Lucy describes herself as "the only hope of the family". She was raised in the countryside and went to an export processing zone in Laguna to earn money to help her family. Now she has worked at Factory E in Cavite for almost a year. She has two more siblings and her mother is sick. If she does not earn enough, she loans money to send to her family, for which she has to pay a very high interest.

She wishes that the employer would increase the salary and also improve the protection against chemicals. She also dreams about going abroad to be able to earn more money.

Before she came to this factory she was working for another electronics company, where she was employed through an agency. The company, however, shut down and she moved to Cavite together with her sister. She describes Factory E as quite a typical company in Cavite’s export processing zone.

**Anti-union tactics**

Before the workers are hired they are told that it is not allowed to organise and they are asked if they have any dealings with trade unions. Workers interviewed are therefore of the opinion that it is not possible to organise a union at the factory. The factory denies having told employees that unions are forbidden. The company’s Human Resources Assistant states that there is a grievance handling system in place at the factory and that a workers’ representative is selected, according to certain procedures that are not fully clear to makeITfair.

**Codes of conduct**

Workers did not know if any buyers had been auditing the working conditions at the factory. Furthermore, the interviewed workers were not aware of the codes of conduct of any of the buyers. The company’s Human Resources Assistant claims that the workers are well-informed.

For a longer summary of Factory F’s response to makeITfair’s findings, please refer to Annex 2 at the end of this report.
7. THE REACTIONS OF THE MOBILE PHONE COMPANIES

The five leading mobile phone companies of the world state, to varying degrees, that they have a responsibility for labour conditions in their supply chains. The companies’ codes of conduct stipulate the rights of the workers. Most of them refer to abiding to the national law and make references to international norms and law in general.86

Most codes contain provisions on health and safety standards, discrimination, forced labour and child labour. LG’s code falls below this with only provisions regarding health and safety. Sony Ericsson, Motorola and Nokia mention fair wages, although references are made only to minimum wages. Nokia, Motorola and Samsung also mention working hours, although none of them put a cap on the working hours. Both Nokia and Motorola mention freedom of association. However, none of the global top-five mobile phone brands mention the right to collective bargaining.

The companies’ requirements are generally only applicable to their first tier suppliers, but some of the companies (including Sony Ericsson, Motorola and Nokia) refer to the responsibility of their suppliers for ensuring compliance with the code also further down the supply chain. It appears, however, that most second tier suppliers or beyond are not included in any verification or other assessment programs by the companies. In general, the codes lack effective implementation measures since companies primarily rely on self assessment by suppliers. Some companies have started to realize this. Motorola, for example, states in its 2007 annual report that it acknowledges the limitations of auditing and will from henceforth put more effort in training and guidance. Sony Ericsson has come to the same conclusion.

MakeITfair has given six large mobile phone companies the opportunity to comment on the factory findings of this report. Nokia, Motorola, Sony Ericsson and Apple sent in comments, while Samsung and LG refrained from doing so.

7.1 NOKIA

Factory A, B and C: Nokia has discussed the findings of makeITfair’s field study with company representatives of Factory A, B and C and argues that many of the allegations are not true, that some are based on misunderstandings or a result of an individual breach or negligence of guidelines. Workers at Factory A have not been interviewed, but employee interviews have been part of the evaluation of Factory B and C.

Nokia writes that the suppliers in question have investigated the allegations put forth by makeITfair and are, where necessary, in the process of strengthening their CSR guidelines and practices to drive further improvement. Nokia points out that all three factories can improve

86 For more information regarding the codes of conduct and the CSR work of the five biggest mobile phone companies, please refer to SOMO’s website: www.somo.nl.
their work to reduce overtime hours. According to the company many of the corrective action plans were implemented during 2007 and some were ongoing during the fall of 2008.

Factory D: Nokia has confirmed that this factory is one of the company’s suppliers. Nokia states that Factory D has taken the allegations put forth by makeITfair seriously and is in the process of correcting the problems.

“On the issue of overtime, [Factory D] has been working to reduce this since 2007 in collaboration with the Labour Bureau. The governmental bodies are responsible for setting legal standards and enforcing them. We will continue to monitor these issues [at Factory D],” writes Nokia’s Corporate Social Responsibility Director Pekka Isosomppi.

In several contacts with makeITfair Nokia has stressed the responsibility of the suppliers and the local authorities, but Nokia also states that the company – as a buyer – promotes sound labour and environmental practices in the supply chain through discussions about development needs and programs, to ensure that good practices are being followed and improvements are taking place.

“We strongly believe that through active engagement and cooperation we can achieve best long-term results. There is always room for improvement and work to be done to promote sound social and environmental practices, and to move beyond mere legal and standards compliance to excel in business”, writes Pekka Isosomppi.

As mentioned above, neither workers at factory A nor the ones at factory B and C were aware of Nokia’s requirements regarding labour rights. Nokia writes that the company expects its suppliers to have their own codes of conduct in place, which must align with Nokia’s code.

7.2 MOTOROLA

Factory A: Motorola conducted an audit of Factory A in April 2007, using an independent third-party audit firm. The audit team identified a number of CSR-related findings, many of which were consistent with those described in this report. The audit included interviews with workers. Motorola will conduct a follow-up audit to see if the problems revealed have been corrected and if the company is making efforts to further improve the conditions at the factory.

Factory B: Motorola states that the company conducted an audit of Factory B in April 2007, using an independent third-party audit firm that also interviewed workers. The audit team identified a number of problems, some of which were consistent to those described in this report. Motorola writes that the company has a rigorous corrective action system that tracks, monitors and confirms closure, and that the majority of the problems at the factory had been corrected by

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87 Motorola states that only the third-party assessor and the worker are present during the interviews. Management participation is not permitted. In certain situations, the assessors also conduct interviews with groups of workers. Interviews are typically conducted onsite. In certain situations the audit firm conducts offsite interviews. The assessors also provide their contact information to the worker if the worker wishes to have a follow-up discussion.
the end of 2007.

Motorola is maintaining a close dialogue with the new owner of Factory B that states that the facility has brought in another independent third-party audit firm to conduct an assessment. The new owner also states that significant progress has been accomplished and that this work will continue.

**Factory D:** Motorola completed an investigation of Factory D after the publication of SACOM’s report in May 2008. The company engaged an independent third-party audit firm that did an onsite assessment. Motorola identified a number of findings; some consistent with those described in the report. Motorola writes in its response to makeITfair that they are working closely with the supplier to resolve the identified problems.

**Factory E:** Motorola has confirmed that this factory in the Philippines supplies Motorola with one type of component. The company has notified the supplier of the issues identified in makeITfair’s report and requested its full cooperation in completing a thorough investigation. Motorola’s investigation will include an in-depth on-site assessment that will be conducted by an independent third-party audit firm. Motorola states that it will work with the supplier to resolve the identified problems when the assessment has been completed.

**Factory F:** To date, Motorola has been unable to identify this company in the Motorola supply chain, but Motorola will continue efforts to do so.

As mentioned above, the workers interviewed at factories that are supplying Motorola with components were not aware of the buyers’ codes of conduct. Motorola does not expect its suppliers to specifically communicate the Motorola code to their workers. The company does, however, demand suppliers to have similar requirements and to communicate those to the workers. Workers interviewed at factory E state that company rules and regulations only cover issues regarding quality, targets and instructions on how to handle hazardous substances – not any other labour conditions. Motorola has not replied to the question of whether or not the company thinks that Factory E’s policies are in line with Motorola’s code of conduct, but the company states that – in general – most codes of conduct contain similar elements.

“We flow down the basic tenants of our code and provide training to help our suppliers understand these expectations”, writes John Plyler, manager for Supply Chain Corporate Responsibility at Motorola.

### 7.3 SONY ERICSSON

Sony Ericsson has not commented on the findings regarding Factory D, which is a supplier of the company. The company has not been able to identify Factory F in its supply chain, but will continue efforts to do so.

In general, Sony Ericsson has gone from focusing largely on audits and questionnaires, to
engaging in cooperation with its suppliers to find common solutions to problems revealed.

“The whole concept of audits, where an auditor is looking for things that are not right, creates a difficult situation. The natural reaction for the audited party is to try to pass the audit and therefore not to show eventual issues to the auditor. This is a result of the psychology of audits and not a sign of distrust. Audits can also never be more than, at best, a snap shot of the situation”, writes Mats Pellbäck-Scharp, Head of Corporate Sustainability Office at Sony Ericsson.

Sony Ericsson’s current efforts therefore focus more on training and understanding the benefits of CSR. It remains unclear to makeITfair if the training includes workers or not, and what the effects of these efforts have been so far.

Workers interviewed by makeITfair in both China and the Philippines point out low wage levels as one of their main concerns. In this report, makeITfair also show that low wages are connected to other problems prohibited in the buyers’ codes of conducts (excessive working hours, health and safety issues, etcetera). Wage levels are, however, not something that Sony Ericsson is discussing with its suppliers, as long as payments are legal. In its code of conduct the company mentions fair wages, although references are made to minimum wages. As described in this report, basic living costs for an average Philippine family are not covered even if both parents work full time and earn the minimum wage in the electronics sector.

**7.4 APPLE**

Factory D: Apple has read the findings regarding Factory D, which produces camera modules for their iPhones. The company states that it takes the information seriously and will investigate them to the best of their ability. When this report was being finalised no audit or other measures seemed to have been scheduled yet.
8. CONCLUSIONS

Thousands of workers in developing and transition countries are manufacturing electronic products that are crucial for our everyday lives. Most of them are young women, who often carry a heavy burden as breadwinner for their families. As workers in the electronics sector of China and the Philippines they are denied many of their basic rights.

The five biggest mobile phone companies in the world – Nokia, Samsung, Motorola, LG and Sony Ericsson – have all adopted codes of conducts promising that the human rights and labour rights of workers must be guaranteed. However, the situation at the factories covered in this report shows that this is not the case. The big mobile phone companies only audit the surface of their supply chains, mostly their so called first tier suppliers. The worst conditions are often found further down the supply chain. The factories that makeITfair has studied for this report are first tier and second tier suppliers. Even so, a wide range of violations of national laws, of the international conventions of the ILO and codes of conduct have been revealed in this study.

This study also shows that the different problems are often connected. In both China and the Philippines minimum wages have become basic wages, which makes it crucial for workers to work a lot of overtime. Moreover, workers state that overtime is not always voluntary. The excessive hours negatively affect the health of workers and most likely explain some of the mistakes that workers make. In China the mistakes – in turn – lead to less money on the pay check, which reduces the salary further. The high set quotas, combined with penalties for mistakes, lead to the effect that some workers do not use protective equipment that is provided in the factories, which exposes them to severe health risks due to the use of chemicals. Health and safety is not only about having the right equipment, but also about giving workers the opportunity to use it.

The possibility to improve the situation is largely dashed by the fact that anti-union tactics are common within the sector as a whole. Different actors within the supply chain stress the need for workers’ involvement and better communication mechanisms between workers and management, to be able to address the violations and the humiliating treatment of workers. Still, as research conducted in both China and the Philippines shows, managers have set up sophisticated structures to control workers and keep them from organising and raising common complaints. In the Philippines the “no union, no strike” policy in the export processing zones has to be reversed, which would require an active, positive attitude by management towards unions. In China some analysts discern an opening for collective bargaining and improvements of workers’ rights. It is of utmost importance that electronics companies analyse how they can be part of these changes and contribute to real improvements on the factory floors.

The buyers may continue adopting codes of conduct and auditing their suppliers at the top of the chain. This will without doubt lead to improvements in some areas.88 However, more profound

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88 A report from the Institute of Development Studies at the University of Sussex concludes that codes of conduct mainly have an impact on health and safety, use of child labour, payment of minimum wages and working hours, while they have little impact on issues such as freedom of association, discrimination, regular employment, harsh treatment, payment of living wages and freely chosen employment. See further in Institute of Development Studies, 2006, The ETI Code of Labour Practice: Do Workers
changes and overall improvements will not take place until workers are given the full and unrestricted right to organise and make their voices heard.

Another fact that hinders change is noted by several suppliers interviewed for this report. They are expected to raise labour and environmental standards at the same time as lowering production costs; an equation that bigger firms can handle if they want to but not the smaller ones that are often found further down the supply chain. One manager states, for example, that while the buyers calculate labour costs at far too low a level, CSR managers demand better working conditions. Other studies conclude that most suppliers see CSR as a cost, instead of an investment that will result in more customers and orders. If changes are to be made, the mobile phone companies need to bring in true incentives to CSR investments in Asia and not use obstructive purchasing practices. They also need to offer guidance to suppliers, and also monitor and take responsibility for the effects further down the supply chain that is currently left uncontrolled.

For a more detailed list of recommendations made to the mobile phone companies, please refer to the ones put forth by the Good Electronics Network.

Really Benefit?
89 The Good Electronics Network is a network consisting of human rights and environmental organisations, trade unions, universities and individuals from Brazil, Canada, China, Congo, Europe, Hong Kong, Hungary, India, Indonesia, Malaysia, Mexico, Thailand, the Philippines, Singapore and the USA. The common aim of the Good Electronics Network members is to contribute to human rights and sustainability in the global electronics sector. The recommendations are published on http://goodelectronics.org/publications-en/Publication_2299/?searchterm=common%20demands
## ANNEX 1: EXCERPT FROM FACTORY A’S COMPANY REGULATIONS

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<thead>
<tr>
<th>FINES (IN YUAN)</th>
<th>NOT ACCEPTABLE BEHAVIOUR</th>
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<tbody>
<tr>
<td>50</td>
<td>To gamble in public areas when wearing work uniforms</td>
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<tr>
<td>50</td>
<td>To allow unauthorized person(s) into factory dormitory</td>
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<tr>
<td>50</td>
<td>To cheat company of overtime premiums, compensations for injuries, and sick leave</td>
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<tr>
<td>50</td>
<td>To not follow proper procedures at work</td>
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<tr>
<td>50</td>
<td>To destroy dormitory lights, cables, electrical sockets, or light bulbs, and to use electricity for lamps and electrical cooker</td>
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<tr>
<td>50</td>
<td>To destroy public property</td>
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<tr>
<td>50</td>
<td>To falsify attendance records</td>
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<td>50</td>
<td>To enquire and/or spread rumours about others’ wages</td>
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<tr>
<td>50</td>
<td>To take a lift without authorization</td>
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<td>150</td>
<td>To sleep during work</td>
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<tr>
<td>150</td>
<td>To appropriate company resources for personal gain</td>
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<tr>
<td>150</td>
<td>To bring in forbidden items onto shop floor</td>
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<tr>
<td>150</td>
<td>To amend or sign leave papers without authorization</td>
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<tr>
<td>150</td>
<td>To reveal info about his or her wages</td>
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<tr>
<td>150</td>
<td>To smoke or drink on the shop floors or in the dormitory</td>
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<tr>
<td>Dismissal</td>
<td>To use falsified identity cards to cheat the company</td>
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<tr>
<td>Dismissal</td>
<td>To use falsified school certificates for job application</td>
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<tr>
<td>Dismissal</td>
<td>To gamble in dormitory</td>
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<tr>
<td>Dismissal</td>
<td>To use physical force or weapons to threaten others, or to insult and humiliate others</td>
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<tr>
<td>Dismissal</td>
<td>To develop very bad working attitude</td>
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<tr>
<td>Dismissal</td>
<td>To amend parameters of work procedure without authorization</td>
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<tr>
<td>Dismissal</td>
<td>To violate the Chinese laws and regulations</td>
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<tr>
<td>Dismissal</td>
<td>To miss three consecutive days of work, or to miss six days of work cumulatively in a year, without giving proper excuses</td>
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<tr>
<td>Dismissal</td>
<td>To cheat in the name of the company</td>
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ANNEX 2: THE REACTIONS AND RESPONSES FROM THE SUPPLIERS IN CHINA AND THE PHILIPPINES

1. FACTORY A
Since the company read the findings of this report, factory representatives claim they have adjusted some problems and breaches of the Chinese law and buyers’ codes of conducts. Some of the changes were, according to the company, initiated before our interviews were made.

Employees who are under 18 will no longer have to perform hazardous work or work night shifts and the company has stopped hiring people under 18.

The company says that fines are forbidden since March 2007, but admits that some departments have not followed this rule. Therefore the management repeated an announcement about this in June 2008. Should the management discover that workers are still fined they say they will take action against the guilty department and station supervisors. However, if workers violate company regulations deductions can still be made. The deduction will be taken from the employee’s allowance and not from their wages.

The company admits that the number of overtime hours is still too high but says that they have tried to reduce the overtime hours since 2007. Their goal is that overtime for so called direct labour (the workers directly engaged in production) should not exceed 100 hours by July 2009 and 80 hours by December 2009. This is still a violation of the Chinese law which allows a maximum of 36 overtime hours per month.

Regarding the fact that many employees do not know if they are insured or not, the company has acknowledged this and has, since January 2008, published information regarding the rules in the staff handbook.

Since makeITfair’s field study was conducted the company has established a welfare committee and a food committee but there is still no union in place.

MakeITfair has not been able to double-check if the positive changes mentioned above are felt by the workers. Interviews with workers during MakeITfair’s field trip, however, suggest that systematic fining of worker was still in use in the fall or 2007, even though the management claims that it was forbidden in March 2007.

Serious health and safety problems were exposed during makeITfair’s interviews, but company representatives claim that workers are properly protected. The management state that the health problems described in this study, as well as the cuts and the accidents, are due to the fact that the operators do not follow the rules and regulations that exist.
2. FACTORY B AND C

Representatives of both the current and the former owners of these factories have been given the opportunity to read and react to makeITfair’s findings. In a response they claim that some findings are misunderstandings and that there have been several improvements in other areas, both before and after the new owner bought the factory. However, the interviews made with workers in June 2008 indicate that several problems still remain and it seems that the conditions at the factories are still far from living up to the company’s social and environmental program.

Regarding the hiring of minors, the company’s employment policy only allows the recruitment of workers who are over 18. That there have been 16-year olds working in the factory is explained by fraud: workers using fake id-cards.

The company claims that it used to take and keep newly hired workers’ ID cards in order to process social insurance, but since March 2008 the company takes photocopies of the ID cards instead of keeping them. The company states that the 18 yuan (two euros) that some workers said they had to pay to buy back their ID cards is a deduction made for prepaid insurance if an employee quits without proper advanced notification within seven days of employment.

Regarding the difficulty to quit and the deduction of wages for those who leave, company representatives say that workers get full pay if they give notice 15 days in advance. Moreover, they claim to have trained all supervisors to ensure that employees have the right to leave their jobs once they have provided notification.

The company denies that it has used higher production quotas to avoid paying overtime. Representatives interviewed admit that there is still a problem with overtime but states that the company has managed to reduce overtime to 60 to 90 hours per month as of February 2008. This is, however, still a violation of the Chinese Labour Law. Company representatives also state that they are enforcing a policy of one day’s mandatory rest per week and that the practice of deducting three days of salary for one day missed has been changed.

The managers say that workers can use the toilet at any time, which makeITfair’s interviews contradict. To make sure that the old and the new company policies are followed the company will conduct regular focus group discussions with employees to obtain feedback on working conditions from the workers. The company also says that it will set up a new Employee Relationship function at the two factories.

The workers’ criticism of the company union is refuted by the managers who claim that the union is both independent and approved by the government. In order to improve communication channels the company has established a formal grievance process and procedures to guide employees on how to raise grievances. The union, an ACFTU affiliate, is the main function to handle these grievances.

Since the new owner took over the factories its team that works with corporate social and
environmental responsibility has been to both of the above mentioned facilities to conduct training of management on business conduct and ethics. The two sites will be required to complete self-assessments and review the gap closures as well as a progress update. The sites will also be subject to internal reviews and audits in the future.

Regarding the workers’ lack of knowledge regarding health and safety, company representatives state that the company conducts job training that includes safety awareness before employees start to work, but they admit that there is still room for further improvement, which they promise they will provide.

The accident after which a female worker had her finger amputated is said to have happened because of negligence by a co-worker of the injured girl. The company states that they have made provision for extra safety awareness and training in critical production areas.

3. FACTORY D

In June 2008 SwedWatch and SOMO met with the Human Resources & Administration Director of Factory D. Regarding individual contracts, the company claims that it currently adheres to the law and gives all employees individual contracts, but that it took some time to enforce the new regulations that came into force on 1 January 2008.

With regard to overtime, the company states that overtime has been reduced but admits that the number of hours is still high. According to the company all overtime is voluntary. The legal limit for overtime in China is a maximum of 36 hours per month, but Factory D writes in its response that the local authorities have allowed the business the flexibility of spreading out the overtime hours over 6 months to be able to cope with higher production targets during peak periods. The company has studied the turnover rate during slow and busy periods and the investigation implies that more workers quit when the overtime is lower than 60 hours per month or higher than 100.

The Human Resources Director said that some assignments in the production may be strenuous for the eyes of the employee but he says that the company pays an allowance for health checks every year. He disregards complaints that production targets are too high and says that there are breaks every two hours. Factory D also states that it provides workers with proper personal protective equipment as well as physical exams, as stipulated in the Chinese law.

In response to the finding that few workers are aware of the customers’ codes of conduct, the Human Resources Director says that information on the EICC code is now included in the staff handbook that every employee gets a copy of. He also says that the company trains its staff in labour rights.

In 2008, this company completed HP’s Focused Improvement Supplier Initiative (FISI) program, which is run by several organisations with experience in conducting social and environmental management training in China. Every two months managers took part in two days of training, covering topics such as wages and benefits, workers communication, root cause
analysis and health and safety. HP’s efforts to help suppliers meet the requirements of the buyers are highly welcomed by the company:

“Every company has their problem and we are happy to be HP’s suppliers. Some other brand companies just want to cut your price.”

Another dilemma mentioned by the Human Rights Director is the difference between the buyers’ purchasing department and the department dealing with social responsibility and ethics: CSR.

“The purchaser is only a buyer and is focusing on the price. The CSR department is only CSR. When the buyers calculate the prize they use the minimum wage and multiply it with the number of working hours. This is never true: either you have to pay overtime or hire more people, which also cost more since you need more living facilities, etcetera. But most buyers are smart; they tell us that if other suppliers can accept the dilemma so why can’t you?”

4. FACTORY E DID NOT RESPOND TO MAKEITFAIR’S FINDINGS

5. FACTORY F
The management at Factory F has made written comments on makeITfair’s field study. They claim that labour conditions regarding health and safety at the factory have improved since SOMO made its first study in 2006. They stress that they have developed the management system for these issues and that the factory meets the requirements for OHSAS 18001 since December 2007. OHSAS 18001 is a management system designed to enable an organization to control health and safety risks and improve its performance. According to the company, improvements include workers education and consultation, ventilation, awareness of ergonomic hazards and other risks.

Workers interviewed complain that their wages have increased very little over the years. Factory management replies that the revision of basic salary is based on the company’s evaluation of the worker. Moreover, management claims that all overtime is voluntary, something that is contradicted by workers, who also complain about the uneven distribution of overtime over the year. The factory writes that this is due to the customers’ orders and therefore beyond the company’s control.

“Generally speaking, the electronic industry and particularly the product that we produce have a peak season so there are times when there is no overtime, depending on the demand. It is usual here in the Philippines that employees are complaining when there is no overtime and also if there is too much overtime,” writes the company’s Human Resource Assistant.

Workers interviewed by makeITfair state that it is difficult to get permission to use their vacation

90 This initiative is further described on HP’s website, www.hp.com/hpinfo/globalcitizenship/gcreport/capability.html
days. This is denied by the factory, but the management says that the workers have to follow certain filing procedure.

Regarding the complaints about hot temperatures and lack of protective gear, the factory states that they provide workers with appropriate protective equipment.

Workers interviewed by makeITfair also claim that they are being reprimanded or fired if they make mistakes. The company does not deny that reprimands are given but states that they all follow strict rules that the employees are aware of, through the company’s code of conduct. MakeITfair has asked for a copy of the code of conduct in question but had not received one when this report was being finalised.

Interviewed workers also say that they are not allowed to organize and that there is no union at the factory. The factory denies telling employees that unions are forbidden and they also claim that the relationship with workers is good. Factory F also writes that the company is establishing the SA8000 system using the Electronics Industry Code of Conduct because they value the relationship between workers and management.
LIST OF REFERENCES

Asia Times online, Philippines Scoffs at China Electronics Threat, 16 Sept 2006. Available at http://www.atimes.com/atimes/Southeast_Asia/HI16Ae01.html

Asia Times online, China's Phone Makers in Speed Dial Mode, 3 Nov 2007. Available at http://www.atimes.com/atimes/China_Business/IK03Cb01.html


EICC's website, www.eicc.info
Emsnow, iSuppli Predicts Limited Outsourcing for Mobile Phone OEMs, 11 Nov 2005.
Emsnow.com, US, Japan and Western Europe Continue to Lose Share of Global Electronics Production, 6 June 2008.

FIAS and BSR, Social Responsibility in China’s Information and Communication Technology (ICT) Sector, July 2007.


IDC, Press release: Over 1 Million Phones Sold Last Year.


iSuppli Corp, Outsourcing Strategies Separate Winners From Losers in the Mobile-Handset Market, 27 Feb


