ELECTRONICS

eauc
The Environmental Association for Universities and Colleges

Much of the sourcing of raw materials, the manufacture of components and the assembly of computers and mobile phones is undertaken in less developed regions of the world because of low relative wages. However, the supply chain of IT equipment is complex and dispersed worldwide, involving a wide variety of materials manufactured into numerous components before assembly into a final product.

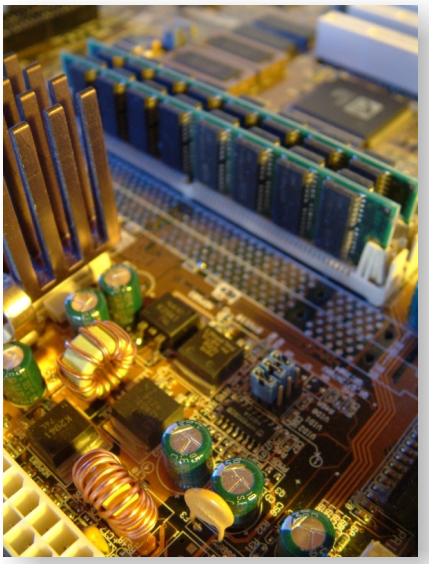
Issues

Mining issues: mineral sourcing

It is estimated that around 36% of the world wide production of tin, 25% of cobalt, 15% of palladium, 9% of gold, 2% of copper, and 1% of aluminium are made into electronics products.

"Supply chains.... may include over twenty metals, each from different mines. Few supply chain stewardship schemes exist for products derived from metals and minerals (other than relatively simple examples like diamonds and gold for jewellery)" (GHGM 2008).

Fifteen countries account for the majority of the current mine production associated with these metals, with about half of these being among the top producers of some of the metals listed. Chile and the Democratic Republic of Congo (DRC) are especially important because of their high contribution to the global supply of copper and cobalt respectively.



Manufacturing and assembly

The manufacture and assembly of components for finished PCs and mobile phones sold under the names of multi-nationals is sub-contracted out to numerous companies. These are located mostly in places with relatively low wages in Asia, South and Central America.

Labour issues

The electronics industry has the potential to bring employment and wealth to the least developed countries, but there are major adverse issues arising from:

- Pressure on sub-contractors to reduce costs;
- Disempowerment of the workforce – preventing informed criticism of bad practice;
- Complexity of the supply chains means that the companies selling well-known brands have immense difficulty in tracking back and assuring themselves of good practices in their sub-contractors.

Recent studies in Mexico and the Far East, on both the PC and mobile phone supply chains, have identified some of the detail, this has included:

- Low wages - Workers being paid the minimum wage or less even though these wage levels are 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;
- Excessive working hours – In both China and Philippines some workers state that they cannot refuse to work overtime and during peak periods they do not even get one day of rest per week;
- Wage deductions, due to punitive fines, were noted at all four factories examined in China by MakeITfair;
- 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.

Principal poverty-related issues

The main poverty related issues include:

- Poor labour conditions at all stages of the supply chain.
- Pollution, destruction of biodiversity (and in some areas, armed conflict) arising from mining and processing of the minerals used in electronic equipment.
- Pollution and adverse health impacts arising from disposal and recycling of electronic components.
- Increased production of greenhouse gases resulting from manufacturing activity and use of electronic equipment. This has a negative impact in poor areas around the world.

Possible solutions

There are a number of activities which can be seen as part of a solution to poverty issues in electronics, including specific campaigns and collective action taken by ICT companies.

Campaigns

CAFOD is the the official overseas development and relief agency of the Catholic Church in England and Wales. CAFOD has been one of the principal organisations working to strengthen the EICC with campaigns such as 'Clean up your Computer'.

The Good Electronics Initiative is a network drawn from human rights, labour rights, environmental organisations, trade unions, universities and individuals which has the aim of contributing to human rights and sustainability in the global electronics sector.

makeITfair is a European project focussing on the electronics industry, especially on consumer electronics like mobile phones, laptops and MP3 players. The project is focussed on informing young people across Europe about global labour abuses and environmental problems caused by the demand for the latest electronic gadgets.

Co-operative action by ICT companies

In response to pressures, leading manufacturers have established two major initiatives to deal with the adverse impacts identified.

The Electronic Industry Citizenship Coalition (EICC)

EICC was established in 2004 to improve social, economic, and environmental conditions in the global electronics supply chain through the use of a standardised code of conduct. The code covers provides guidance in five critical areas of CSR performance:

- Labour
- Health and Safety
- Environment
- Management Systems
- Ethics

GeSI - the Global e-Sustainability Initiative

GeSI is a partnership of global ICT companies working towards sustainable development in the sector in alliance with the United Nations Environment Programme (UNEP) and the International Telecommunication Union (ITU).

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Recommendations

It is recommended that in procuring IT equipment, universities and colleges and those acting on their behalf should seek to maximise beneficial impacts and minimise negative impacts on poverty by ensuring that suppliers and contractors associated with Computers and IT:

- ***Are fully committed to implementing the Electronic Industry Citizenship Coalition Code of Conduct, or equivalent, throughout their whole supply chain and is committed to meeting ILO standards***
- ***Supply products given gold rating by EPEAT or equivalent.***
- ***Ensure that the common demands of the Good Electronic Network are met.***

REFERENCES/FURTHER INFORMATION

GHGM 2008. Social and Environmental Responsibility in Metals Supply to the Electronic Industry. Report to Electronic Industry Citizenship Coalition and Global e-Sustainability Initiative. www.gesi.org/LinkClick.aspx?fileticket=anlAuBauWU8%3D&tabid=60

The Electronic Industry Citizenship Coalition Code - www.eicc.info/

Common Demands of the Good Electronic Network - www.goodelectronics.org/about/goodelectronics-common-demands

This sheet is part of a series of 14 on different commodities written for EAUC's Promoting Poverty Aware Procurement project to enable universities and colleges to be more aware of poverty issues when they make procurement decisions. For more information about the project visit www.eauc.org.uk/promoting_poverty_aware_procurement_on_campus

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