



# Changing attitudes

**Lotte Debell** reports on some of the interim findings of the Recycling of Low Grade Clothing Waste project, and finds out about an embryonic corporatewear initiative to specify a 'green uniform'.

Clothing is getting cheaper all the time. How many of us have bought a garment for under £10, perhaps £5? The garment might not have been particularly well made, but at today's low prices it doesn't have to be. If, after a few washes, a £3 T-shirt starts to come apart, we can afford to throw it away and buy another.

Wardrobes have never been so disposable, but once disposed of, what happens to this cheap, low quality clothing? Apart from the difference to our bank balance, what other impact is it having?

The Defra-funded Recycling of Low Grade Clothing Waste project that kicked off last year was set up to look into that very question. The joint partnership between Salvation Army Trading Co. Ltd, waste management research company Oakdene Hollins and the Non-wovens Innovation and Research Institute (NIRI) at Leeds University is conducting research into the implications of cheaper clothing being imported into the UK, and it is also looking for solutions to the problems it creates for recycling. This includes an economic and policy study on the implications of lower quality clothing for the secondary textile market and prices since the end of Multi Fibre Arrangement, considering market trends, possible changes in waste textile collection, and policy interventions options based on economic forces and the envi-

ronmental impacts of clothing. The project is also looking at the development of new technology to turn lower grade clothing into high value non-woven products, including the use of products in new markets, as the traditional ones become less viable for recyclers.

The reuse of old clothing for the wipers trade has been one of the traditional mainstays of UK textile recycling. 'The loss of the market for wipers

is one of the main reasons for the research,' explains Garth Ward of Salvation Army Trading Co Ltd. 'There used to be 30 or 40 different grades of wipers, from high quality white wipers used in very specialised applications to the rags used for cleaning floors, but as companies have moved offshore demand has reduced.'

The purpose of the study is to find alternatives to these disappearing markets, a need that is

## Klopman believes in flower power

When it comes to influencing companies' behaviour on an ethical and environmental level, end user pressure is key, believes Judith Emslie from fabric manufacturer Klopman International. In 2003 the company gained accreditation to the Eco-label, the European-wide voluntary certification scheme that aims to improve the environmental impact of products throughout their life. This was a result of requests by customers, and the company's desire for recognition of its long-term commitment to environmentally responsible and sustainable manufacturing.

'The Eco-label is a lifecycle certification that ensures that products are made with a minimum

harm to the environment,' explains Judith. 'The flower mark on a product indicates the limited use of harmful substances in its manufacture, and it is also a guarantee of quality. For example, for our fabrics this means using chemicals that are as environmentally friendly as possible, and recycling the water used for manufacturing.'

Recognition of the label is increasing, says Judith, who has seen it on some high street goods, but it is not as well known in the UK as elsewhere in Europe such as Scandinavia. 'It does help us to differentiate our products, however, especially compared with those of Far Eastern manufacture.' ■

**Left: Women bought around 676,000 tonnes of clothing in 2003, and it has been estimated that the purchase of womenswear has doubled in the last decade. The falling price of virgin clothing is one factor contributing to this rise.**

## “Compared to the recycling of other products such as glass, clothing saves far more CO<sub>2</sub>”

made more urgent by the increasing volume of clothing imports, especially lower quality clothing, and the attendant increase in our clothing consumption it. There has not been an economic climate quite like this since the 1930s, and as a result the volume of clothes purchased has risen dramatically. In an article in the Guardian, it was estimated that purchase of womenswear has doubled in the last decade. Where is all that clothing going when it is no longer in use?

In a seminar at the recent Clothing@Work show, Garth presented some facts and figure. In 2003, it is estimated that women bought around 676K tonnes of clothing, while men were not far behind with 505K tonnes. This does not include footwear (169K tonnes) or household textiles (500K tonnes). Looking at the other side of the coin, roughly 1.1 million tonnes of clothing and textiles are thrown away as domestic waste per year – many of this garments with an estimated 70 per cent of life still in them – with a further

300K tonnes collected for reuse or reprocessing. That leaves around 400K tonnes of clothing unaccounted for – one reason, Garth suggests, for the growing popularity of the garden shed!

Clothing thrown away as domestic waste will usually find its way into landfill. While this used to be the preferred method of waste disposal, the Government's thinking on the issue has changed. Ben Bradshaw, Minister for Waste Management wrote in his foreword to England's Waste Strategy 2006, that the UK not only needs to produce less waste, it also needs to develop a new strategy and aim for long-term sustainability by seeing waste as a resource. This means that items are designed so that they can either be easily recycled or otherwise reused.

Among the interim findings of the project, explains Nick Morley from Oakdene Hollins, is that reuse and recycling of clothing and textiles is most significant from the point of view of saving in carbon dioxide emissions. 'Compared to the

recycling of other products such as glass or paper, clothing saves far more CO<sub>2</sub>, partly because of the amount of energy it takes to produce textiles in the first place. To make an item of clothing, first the fibre has to be produced, then made into a fabric, dyed, cut, sewn, transported and distributed, then there's the energy use throughout the garment life. Although each of these processes might not use a lot of energy in themselves, it all adds up. So, if we find uses for clothing that displace virgin fibre we can make a significant global impact. Most of the impact would be non-UK as so much of the production of textiles takes place offshore, but while it might not help this country meet its targets, it can help on a global scale if it means less virgin fibre has to be produced.'

The displacement of virgin fibre with recycled fibre could save up to seven to eight tonnes of CO<sub>2</sub> per tonne of synthetic fibre. This is significantly higher than products like glass, where such displacement will only save about 300kg of CO<sub>2</sub> per tonne, but not as high as aluminium which saves about 14 tonnes of CO<sub>2</sub> per tonne.

In terms of this displacement, says Nick, the project has also concluded that reuse is more ►

**Charity shops are the traditional outlet for used clothing, but the decreasing price of new clothing is damaging the trade.**

➤ effective than recycling. 'It has been estimated that reuse is about four times better than recycling because by reusing clothing we are displacing all the processes that go into making it in the first place.' However, he adds, the actual impact of reuse is unclear as it depends on how the substitution of old for new takes place.

'If you go to a charity shop and buy one used shirt instead of one new one, that is direct substitution and has maximum impact, but this is rarely how it works. Reused clothes are cheaper so people buy more of them. Two old shirts for one reduces the impact, and if you buy four used shirts for one we are back to where we started.'

The problem is enhanced by the fact that the price of used clothing is being driven down by the low cost of virgin clothing. Charity shops, the traditional outlets for used clothing, are responding



## TLC from Mantis

What happens to garments at the end of their life is important, as is how they start out their life. In an attempt to address some of the problems caused by the overuse of chemical dyes, fertilisers and pesticides in conventional cotton production, in 2005 casualwear supplier Mantis World launched a range of 100 per cent organic cotton clothing, Tender Loving Care.

There are nine styles in the TLC range, including the Organic Women's Skinny Tee (above) and the Organic Men's Stretchy Tee.

The cotton is certified by internationally accredited organisation EcoCert, and is bought from farmers in Uganda who are paid a premium for growing cotton organically. The cotton is grown and picked without the use of synthetic pesticides or fertilisers, and is grown in 'living soil' – soil that has been free from toxic chemicals for at least three years.

The garments in the TLC range are left unbleached or dyed, retaining their natural 'ecru' colour, and are sewn using 100 per cent cotton thread. ■



by moving into the sale of other used products such as books, CDs and toys, and their need to sell used clothing is reduced. As a result, both the UK charity sector and textile recycling industry are suffering. 'As with all industries, the economics in the market place have a direct effect on the labour force, especially in textile recycling which tends to employ ethnic minorities and difficult-to-employ categories,' says Garth. 'Redundancies, lay-offs and short-time working are already a reality, and thus social, economic and environmental issues are entwined and interdependent.' The negative effect of low grading clothing is not just felt in the UK but in developing countries also,

probably melt when subjected to conventional recycling methods, and cause equipment malfunction or potentially contaminate the secondary material, and thus the end product, and so as a recycler I have to reject them. Indeed, the increasing use of synthetic base materials in the clothing market has already caused the waste management industry to ask for textiles to be separated from the household waste stream prior to treatment by the new technological processes as they "clog up the works". All this adds to cost and someone eventually has to pay for it.'

Is there a way for the corporatewear industry to help resolve some of the problems created by

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where most of the collected clothing is sent.

One possible solution that has been considered by the project is producer responsibility – the 'polluter pays' principle, because the cost of end-of-life management falls on the product producer. In some European countries, producer responsibility for textiles is already becoming a reality. The French have set up a committee to discuss the possibility of applying a tax on new garments, and in Flanders local authorities subsidise clothing collections. In the UK, however, a voluntary system seems to be the preferred option – for now.

'We would prefer producers to choose to take responsibility,' says Nick, 'mainly because the environmental impact of clothing at end of life is fairly low. Textiles don't tend to contain lots of heavy metals or toxic substances that can cause pollution on landfill, so enforced producer responsibility seems unjustified at present. Instead, retailers and producers should be encouraged to take responsibility – the emphasis is on an opportunity to save CO<sub>2</sub> rather than a compulsory obligation.'

One way that producers can take responsibility for end of life is by looking at garments more carefully at their start of life. A major issue for recycling, one that has developed over the years, is the sophistication of garment technology and design. Sporting clothes are an example of highly technical, complexly designed garments that cannot easily be recycled, some corporatewear garments another, especially items like PPE or treated suit fabrics. From the point of view of the corporatewear buyer, looking for high quality, durable clothing, the latest innovations are a huge benefit. But looking at it from the recyclers' point of view, these changes are problematic. 'For a consumer, some of these new products sound fantastic,' says Garth. 'But fabric coatings will

high-tech garments? At the Clothing@Work show, Garth urged that as an industry both sides need to know and understand the challenges faced by the other, and start talking to try to solve them. As a result talk has begun. 'After the seminar I was approached by some people who wanted to discuss the idea of a "green uniform", and this has generated interest as it is not something we have looked into before. Now we are seriously considering how it can be achieved.'

The idea of a 'green uniform' is a compelling one, garments that could be made from environmentally friendly fabrics, in an environmentally friendly way, and that could either be reused or easily recycled at the end of their life. For the purposes of reuse, any branding would have to be removable, and when it comes to recycling, it would have to be possible to separate any different elements of the garment without great effort or expense. Can it be done?

'We are looking at what is possible,' says Nick. 'How can we go forward, what kind of fabrics we could use, how the design would work, etc. etc. It might not be possible to make the ideal 'green uniform' but we are looking to find the optimum, and we would like to build a consortium of interested parties to help us do that.'

'We want to talk to interested people,' Garth agrees. 'We have researchers who can look into the fabric angle and garment technology, but it is essential that the designers, manufacturers and specifiers are included in the discussions. Initially we want to sit around a table and throw some ideas around and see if we can come up with something.'

If you are interested in getting involved in this project, please contact Garth Ward at [Garth.Ward@satradincgo.org](mailto:Garth.Ward@satradincgo.org). ■