

Textile recycling information sheet



[Why bother?](#)

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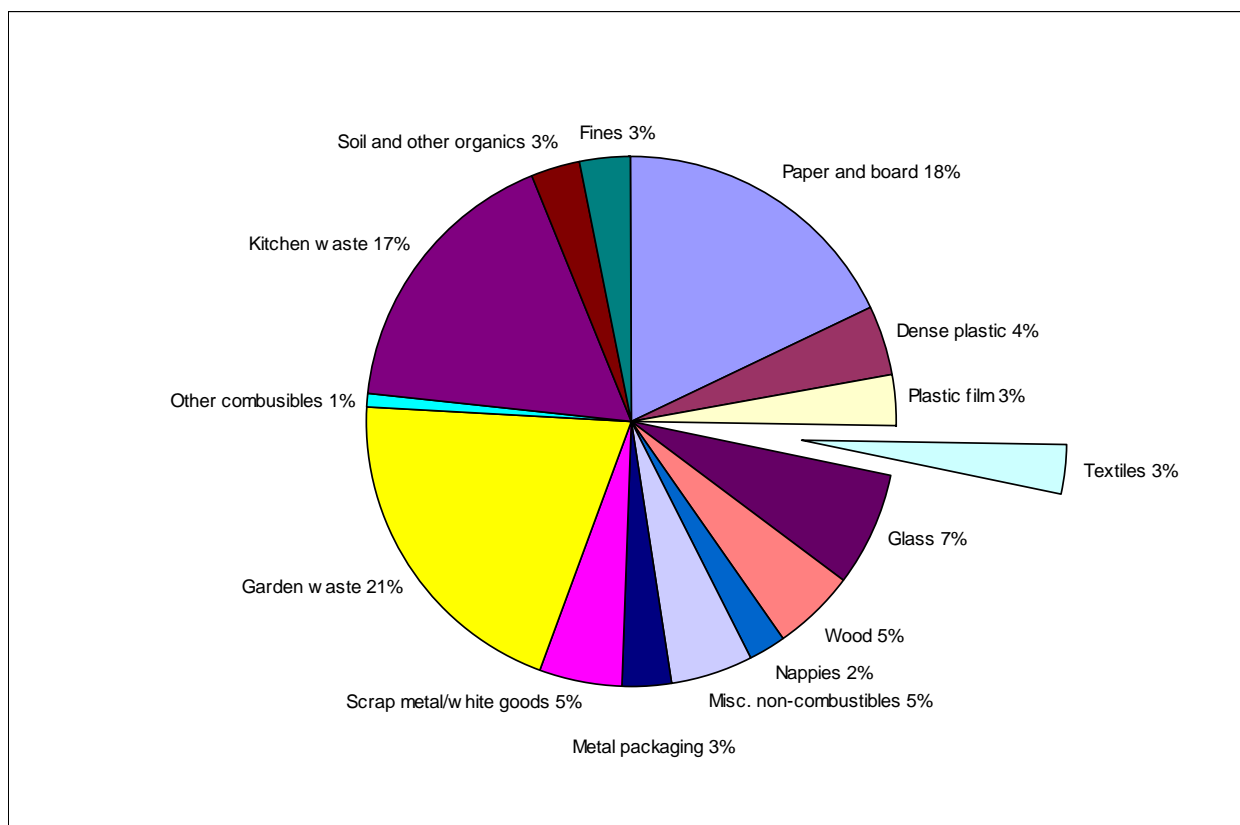
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Textile recycling originated in the Yorkshire Dales about 200 years ago. These days the 'rag and bone' men are textile reclamation businesses, which collect textiles for reuse (often abroad), and send material to the 'wiping' and 'flocking' industry and fibres to be reclaimed to make new garments. Textiles made from both natural and man-made fibres can be recycled.

Why bother?

It is estimated that more than 1 million tonnes of textiles are thrown away every year¹, with most of this coming from household sources. Textiles make up about 3% by weight of a household bin.² At least 50% of the textiles we throw away are recyclable³, however, the amount of textile wastes reused or recycled annually in the UK is only around 25%.⁴



Source: Analysis of household waste composition and factors driving waste increases - Dr. J. Parfitt, WRAP, December 2002

¹ <http://www.e4s.org.uk/textilesonline/world.htm>

² Analysis of household waste composition and factors driving waste increases - Dr. J. Parfitt, WRAP, December 2002

³ <http://www.e4s.org.uk/textilesonline/world.htm>

⁴ <http://www.dti.gov.uk/sustainability/downloads/textile.pdf>

Although the majority of textile waste originates from household sources, waste textiles also arise during yarn and fabric manufacture, garment-making processes and from the retail industry. These are termed post-industrial waste, as opposed to the post-consumer waste which goes to jumble sales and charity shops. Together they provide a vast potential for recovery and recycling.

Recovery and recycling provide both environmental and economic benefits. Textile recovery:

- Reduces the need for landfill space. Textiles present particular problems in landfill as synthetic (man-made fibres) products will not decompose, while woollen garments do decompose and produce methane, which contributes to global warming.
- Reduces pressure on virgin resources.
- Aids the balance of payments as we import fewer materials for our needs.
- Results in less pollution and energy savings, as fibres do not have to be transported from abroad.

If everyone in the UK bought one reclaimed woollen garment each year, it would save an average of 371 million gallons of water (the average UK reservoir holds about 300 million gallons) and 480 tonnes of chemical dyestuffs. (Evergreen)

Reclaiming fibre avoids many of the polluting and energy intensive processes needed to make textiles from virgin materials, including: -

- Savings on energy consumption when processing, as items do not need to be re-dyed or scoured.
- Less effluent, as unlike raw wool, it does not have to be thoroughly washed using large volumes of water.
- Reduction of demand for dyes and fixing agents and the problems caused by their use and manufacture.

How's, what's and where's of recycling textiles

The majority of post-consumer textiles are currently collected by charities like The Salvation Army, Scope and Oxfam. Some charities, for example Oxfam and The Salvation Army, sort collected material selling it on to merchants in the appropriate sectors.

Over 70% of the world's population use second hand clothes. (Textiles on line)

Some post-industrial waste is recycled 'in-house', usually in the yarn and fabric manufacturing sector. The rest, aside from going to landfill or incineration, is sent to merchants.

Collection Methods

At present the consumer has the option of putting textiles in 'clothes banks', taking them to charity shops or having them picked up for a jumble sale.

Recyclatex, a scheme run by the Textile Recycling Association in conjunction with local authorities and charities, provides textile banks for public use. The Salvation Army, Scope, and Oxfam also use a bank scheme in conjunction with other methods. Scope, for example, runs a national door-to-door textile collection service. There are about 6,000 textile banks nationwide,⁵ but clothes banks are only operating at about 25% capacity.⁶

The Salvation Army is the largest single operator of textile banks in the UK, with over 2,000 banks nationwide.⁷ On average, each of these banks is estimated to collect about six tonnes of textiles per year.⁸ Combined with door-to-door collections, the Salvation Army's textile recycling operations account for the processing of in excess of 17,000 tonnes of clothing a year.⁹ Clothes are given to the homeless, sold in charity shops or sold in developing countries in

⁵ <http://www.dti.gov.uk/sustainability/downloads/textile.pdf>

⁶ http://www.e4s.org.uk/textilesonline/content/6library/fr_library.htm

⁷ email from Gareth Ward Salvation Army 20/02/02

⁸ email Gareth Ward. Salvation Army 20/02/02

⁹ Letter from Garth Ward. Salvation Army 2001

Africa, the Indian sub-continent and parts of Eastern Europe. Nearly 70% of items put into clothing banks are reused as clothes, and any un-wearable items are sold to merchants to be recycled and used as factory wiping cloths.

The average lifetime of a garment is about three years. (textiles on line)

Unsold and un-wearable textiles are sent to Oxfam's Wastesaver, a textile recycling plant in Huddersfield¹⁰. These clothes are sold as raw materials to the textile recycling industry. Wastesaver handles about 100 tonnes a week.

The European Recycling Company Limited operates a network of collecting points for second-hand shoes, most of which are re-usable. The shoes are sorted according to their condition and then sold into developing countries, where they are locally reconditioned and resold at affordable prices in those areas. A pilot research study is being carried out in Germany to create techniques for reprocessing excess shoe materials into alternative products, such as sound insulation board.

Processing and Outlets for Waste Textiles

All collected textiles are sorted and graded by highly skilled, experienced workers, who are able to recognise the large variety of fibre types resulting from the introduction of synthetics and blended fibre fabrics. Once sorted the items are sent to various destinations as outlined below:

WEARABLE TEXTILES



SHOES

Resold abroad in countries like Pakistan, India, Africa and East European countries.

CLOTHES

Resold in the U.K. and abroad. Oxfam's Wastesaver provides clothes to Mozambique, Malawi or Angola for emergency use, as well as providing warm winter clothing to former Yugoslavia, Albania, Afghanistan and Northern Iraq.

UNWEARABLE TEXTILES



TROUSERS, SKIRTS, ETC.

Sold to the 'flocking' industry. Items are shredded for fillers in car insulation, roofing felts, loudspeaker cones, panel linings, furniture padding etc.

WOOLLEN GARMENTS

Sold to specialist firms for fibre reclamation to make yarn or fabric.

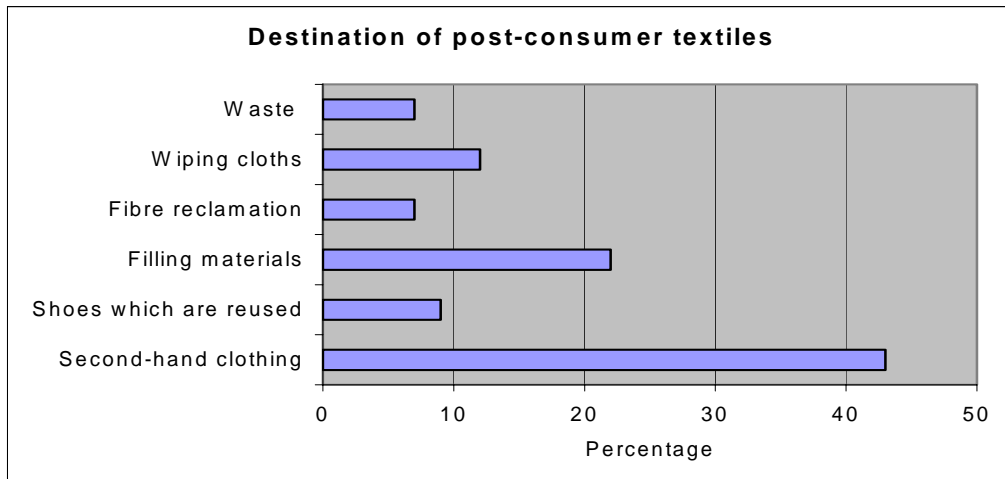
COTTON AND SILK

Sorted into grades to make wiping cloths for a range of industries from automotive to mining, and for use in paper manufacture.

Post industrial waste is often reprocessed in house. Clippings from garment manufacture are also used by fibre reclaimers to make into garments, felt and blankets.

Some items will be reused by designers fashioning garments and bags from recovered items, however this is a very small sector within the overall destinations of textiles.

¹⁰ http://www.oxfam.org.uk/shop/how_to_donate/wastesaver.htm



From the Textiles Recycling Association, published in A Way With Waste 1999.

The Fibre Reclamation Process

Mills grade incoming material into type and colour. The colour sorting means no re-dyeing has to take place, saving energy and pollutants. Initially the material is shredded into 'shoddy' (fibres). Depending on the end uses of the yarn e.g. a rug, other fibres are chosen to be blended with the shoddy. The blended mixture is carded to clean and mix the fibres, and spun ready for weaving or knitting.

The Recycling Scene

Evergreen produces yarns and fabrics from recycled fibres. Their most successful products are inblends spun from English and Chinese hemp and recycled denim, in addition to other recycled fibre blends containing wool, cashmere, silk and PET (polyester made from post-consumer recycled plastic drinks bottles and tencel, a fibre made from wool).

The reuse of clothes is promoting a new breed of designer. NoLoGo are a team of volunteer designers set up by Oxfam who restyle donated garments and fabrics, selling them on at some Oxfam shops.

The Recycled Products Guide has details of products made from recycled textiles. Available at www.recycledproducts.org.uk

The export market is rapidly growing as more market points are set up abroad. Some merchants also offer an array of services to encourage more collection, such as security uniform shredding prior to recycling.

What You Can Do

- Take your used clothes to a textile bank. Contact the recycling officer in your local authority if there are no banks in your area and ask why; they may collect textiles through other means. Alternatively you can take used clothing to local charity shops.
- Give old clothes/shoes/curtains/handbags etc. to jumble sales. Remember to tie shoes together: part of the 6% of textiles which is wastage for merchants are single shoes.
- Buy second-hand clothes - you can often pick up unusual period pieces! If bought from a charity shop, it will also benefit a charity.

We use large quantities of water, energy and detergents to clean and dry our clothes. It has been suggested that this is the most polluting stage of the textile life cycle.

- Buy things you are likely to wear a long time - a dedicated follower of fashion can also be a green one if items are chosen carefully.
- Look for recycled content in the garments you buy. This should be on the label, though at present there is no conventional marking scheme and some companies do not always advertise the recycled content.
- Buy cloth wipers instead of disposable paper products as the product can be used repeatedly.

Useful contacts

Textiles Environment Network (TEN)

c/o National Centre for Business and Ecology
Peel Building
University of Salford
Manchester, M5 4WT
t 0161 295 7152

Textiles On Line

Website: <http://www.e4s.org.uk/textilesonline/index.htm>
A good educational resource.

Charities Involved With Textile/Shoe Recycling

European Recycling Company Limited

Whitehead House
120 Beddington Lane
Croydon CR9 4ND
t 0500 827198
ercold@aol.com
Involved mainly with shoe recycling

Salvation Army Trading Co Ltd

56-78 Dennington Road
Denington Industrial Estate
Wellingborough
Northamptonshire
NN8 2QH
t 01933 441086
garth@satraidingco.org
<http://www.satradringco.org/>

TRAID (Textile Recycling for Aid and International Development)

5 Second Way
Wembley
Middlesex HA9 0YJ
t 020 8733 2580
info@traid.org.uk
<http://www.traid.org.uk>

Fibre Reclamation

J P Textiles (Evergreen)

18 Horthorne Street
Barnsley S70 1QQ
t 01226 232630
Johnparkinson@blueyonder.co.uk

Oxfam Wastesaver

Unit 4-6 Ringway Industrial Estate
Beck Road
Huddersfield HD1 5DG
t 01484 542021
enquiries@oxfam.org.uk
http://www.oxfam.org.uk/what_you_can_do/shop/how_to_donate/wastesaver.htm

Scope, Stock & Recycling Dept. (North)

25a High Street, Knaresborough
North Yorkshire, HG5 0ET.
t 01423 862963.
email address: carolyn.oconnell@scope.org.uk

Scope, Stock & Recycling Dept. (South)

7, Parsons Street, Banbury, Oxon, OX16 5LW
Tel : 01295 272805
j.yates@scope.org.uk
<http://www.scope.org.uk>

Trade Associations

British Apparel and Textile Centre

5 Portland Place
London W1N 3AA
t 020 7636 7788

batc@dial.pipex.com

<http://www.batc.co.uk>

For details on environmental legislation.

Textile Recycling Association and Recyclatex

PO Box 965
MAIDSTONE
Kent ME17 3WD
t 0845 6008276

Fax: 0845 6008276

info@textile-recycling.org.uk

<http://www.textile-recycling.org.uk>

In charge of the Recyclatex scheme. Free educational booklet available.

Further Reading

Textile Recycling (2001)

URN 00/1126. Published by the Department for Trade and Industry (DTI)

ADMAIL 528 London SW1W 8YT

t 0870 1502 500

publications@dti.gsi.gov.uk

Appendix 6 - Textiles. In Developing Markets for Recycled Materials - Ogilvie, Dr S and Poll, A (1999)

Ref: AEAT-5538 Published by AEA Technology plc

F6 Culham, Abingdon, Oxfordshire, OX14 3ED

t 01235 463148

enquiry@aeat.co.uk

Opportunities & Barriers to Textile Recycling - Cupit, M.J. (1996)

ISBN: 0-7058-1715-6 Ref: AEAT-0113. Published by AEA Technology plc (as above)

Updated: January 06

<http://www.wasteonline.org.uk>

<http://www.wastewatch.org.uk>

Due to changes in funding, we are no longer able to offer a public information service. Should you have further questions on waste and recycling, please contact one of these groups:

Householders and students should call the [Recycle Now](#) helpline on 0845 331 31 31 for further waste based information, and where to find your local recycling facilities.

Small to medium businesses should visit the [Envirowise](#) website, or call 0800 585 794, for further information on waste issues. Larger businesses should visit www.businesslink.gov.uk.

For industry based questions, please use the WRAP technical helpline on 0808 100 2040 for advice on markets and recycling company development, or visit www.letsrecycle.com for listings of recyclers and reprocessors.

If you find a mistake on this page, or have a technical question regarding the wasteonline website, please email info@wastewatch.org.uk.

Thank you, and apologies for any inconvenience.