

## **Recycling imported secondhand textiles in the shoddy mills in Panipat, India: an overview of the industry, its local impact and implications for the UK trade**

A research summary by Lucy Norris, Department of Anthropology, UCL, February 22, 2012.

### **Summary**

- Panipat, in north India, is the world's largest textile recycling hub, producing reclaimed "shoddy" wool yarns and blankets out of used clothing. The industry sources its materials from the international worn clothing market, including the UK. (Much smaller recycling industries producing blankets and felt products are also located in North, South and East Africa).
- Commercial recyclers in the UK export to these factories directly, with some larger firms buying up recycling grades from other UK textile recyclers. For example, Wilcox has estimated that up to 20% by volume of its turnover is exported to India for recycling. The trade is not illegal, and providing the clothing is mutilated before it crosses the Indian border, provides a source of raw materials for the Indian wool industry.
- However, it is an unregulated industry employing at least 70,000 people who work in poor social and environmental conditions that would not satisfy minimum ethical standards applied to the manufacture of consumer goods by responsible companies.
- The public appears to have little perception of what happens to their clothing once they have disposed of them, and little knowledge of used clothing markets abroad. Further more, the difference between reuse and recycling markets are not widely understood by the public, and it is not clear that some donated clothing will be sold for recycling abroad, and what that actually means. Rags for recycling remain 'black-boxed', externalized in UK reports as an export commodity.
- As main upstream suppliers to this market via commercial textile recyclers, the public, charities and local authorities appear to be largely unaware of the existence of the textile recycling industry in India, and its social, economic and environmental impact.
- The commercial relationships between charities, local authorities and textile recyclers are not transparent in the UK, and public donors and third sector collectors remain largely unaware of the global political economy of used clothing and the distribution of economic value it generates.
- A general lack of reliable statistics and transparent pathways in a rapidly expanding market prevents upstream stakeholders (eg charities) from being able to take sufficient corporate responsibility for the downstream effects of their economic activities.
- In particular, charities may potentially undermine the core values underpinning their work through their engagement in a highly profitable global trade in worn clothing of which they may have only partial knowledge. The current conditions in the Indian recycling industry are an example of the potentially damaging effects of this trade maintained by this lack of transparency. (Ironically, international aid agencies are one of the principle buyers of those shoddy blankets produced for the export market, unintentionally framing an exploitative recycled commodity chain at both the front and back ends.)
- For example, developing initiatives that support the capture and retention of a greater proportion of the value in used clothing for socially constructive aims could prove to be an important incentive to counter the attractions of selling old clothes directly to recyclers, and encourage donations to charity shops.
- Can alternative models for recycling textiles in a sustainable fashion be found for the surplus generated in the UK? Could improvements be implemented in the Indian industry to support the workers dependant upon it, and how might these be piloted and introduced?

## **Wider Contexts: a lack of published information and analysis**

### *Political economy...*

The estimated value of the total global trade in second-hand garments has more than doubled from \$1.26bn in 2001 to \$2.97bn in 2010.<sup>1</sup> However, there is no reliable overview of the political economy of worn clothing, at the global, regional or national levels. Official statistics based on declared exports and imports are likely to be underestimates of the scale of the trade both in terms of volume and financial value.

This is partly due to the specific material nature of garments, the way in which they are packed and shipped and various local negotiations of national tariff regimes by brokers dealing in a global commodity. As sorting operations formerly based in Western Europe and North America are becoming increasingly globalised, worn clothing can be exported unsorted, sorted in Eastern Europe or Special Economic Zones across the global south, and are often repacked and re-exported under successive different classifications until they reach destination markets.<sup>2</sup> There is no reliable published literature available on this increasingly complex commodity network, which crosses over the borders between legal and illegal activities.

### *Global value network*

There is little or no systematic analysis of the contextual value of worn clothing as a commodity and its distribution throughout the global value network, ie how and where significant value is created and extracted at specific points along it and who benefits from it. A small number of social science studies and stakeholder reports focusing on particular countries discuss the impact of used clothing as a reusable commodity in local economies. We have found no other economic or social studies of textile recycling industries, either in the global north or south, apart from those now arising from this research. The rapid expansion of the global trade in the past two decades, and the highly competitive opportunity for large profits it affords, appears to have made it difficult for sectors involved to maintain an overview of where value is realised.

The gaps in the research on secondhand reuse and recycling markets and their economic, social and political contexts should be of concern to donors, charities, commercial recyclers and public policy-makers, and the economic relationship between charities, local authorities and the commercial sector should not preclude taking the wider impact of the trade into account. Textile recyclers aiming to reduce the environmental impact of worn clothing, and charities taking corporate social responsibility seriously and/or whose core functions involve economic and social development, may wish to ensure that their own trade practices do not undermine these goals.

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<sup>1</sup> UN Commodity Trade Statistics Database 2010.

<sup>2</sup> Five countries (the USA, UK, Germany, South Korea and Canada) account for more than half of all exports of second hand apparel (HS 6309). The UK's top markets are Poland 17.5%, Ghana 12%, Ukraine 11%, Benin 9.7%, Hungary 8.3%, Kenya 5.8%, Pakistan 5.3%, Togo 4.3%, Lithuania 2.9%, and Latvia 2.8%. Hungary and Eastern European countries are the fastest growing importers, with 0% tariffs imposed. All act as major re-export hubs to Russia and beyond.

## **Recycling used clothing in India: estimates as to scale**

Up to 50% of worn clothing collected is recycled rather than reused,<sup>3</sup> i.e. they are destroyed in order to re-use the fabric or the fibres. There is little innovation in developing industrial products from recycled textiles;<sup>4</sup> only 3 flocking companies remain in the UK, although there are more in Europe, and the European shoddy spinning industry virtually collapsed in the 1980s. Panipat in north India is now the world's largest textile recycling hub, with over 300 mills producing shoddy ("regenerated") yarn from recycled fibres.

This recycled yarn is woven into poor quality cloth and blankets for the domestic market (85%) and for export (15%). Panipat supplies over 90% of the shoddy-wool relief blankets bought by international aid agencies for use in global disasters.

The Indian Ministry of Textiles' last published figures show that the total import of mutilated rags from the global market, both woollen and synthetic, for the shoddy industry in 2007-8 was 92.47 million kg (92,470 tonnes), down from a reported peak of 110.26 million kg the previous year.<sup>5</sup> There is no firm data concerning the overall tonnage, or %, or value of UK used clothing that goes to India for recycling, and this needs to be identified as a pathway in policy initiatives and quantified.<sup>6</sup> In the 2009 Morley report, this pathway remains black-boxed as 'recycled abroad'; some positive examples of sustainable recycling are covered, but there is no research into problematic areas such as this industry.<sup>7</sup>

There is a dearth of objective information in the public sphere concerning the size, development and character of the industry in India. The figures in this research were obtained from industry representatives in Panipat.

### **Manufacturing in Panipat:**

#### *Value destroyed*

The grades of clothing sent for recycling are not always damaged or low-quality textiles as is usually assumed and/or claimed, but unsurprisingly they include those for which no more profitable market can be found by commercial rag dealers. Textile recyclers try hard to establish niche markets, and report that recycling grades make little profit, but save them the cost of skipping the material.

In fact, much of the feedstock in Panipat factories is wearable winter clothing for which there is little demand in developing economies with hotter climates, while Eastern European markets tend to buy the most fashionable grades. Undamaged, reusable coats, jackets, jumpers, and children's clothing made from mixed fibres and wool are systematically slashed ("mutilated") before crossing the Indian border to conform to tariff requirements, then

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<sup>3</sup> <http://www.bir.org/industry/textiles/> accessed November 3<sup>rd</sup> 2011

<sup>4</sup> (Morley et al., 2009, Oakdene Hollins Ltd et al., 2006)

<sup>5</sup> Figures from DGCI&S, Kolkata, quoted in (Ministry of Textiles, 2010: 110)

<sup>6</sup> NB Wilcox figures of 20% cited in summary.

<sup>7</sup> (Morley et al., 2009). V2 Technical Report Appendix 1, Chapter 8.1.1 briefly discusses the uses of recycled yarn for geo-textiles, but makes no mention of the Indian blanket industry and emergency relief blankets, all for human consumption.

manually cut up into small pieces by women using vegetable cutters, and mechanically torn to shreds for fibre reclamation.

### *Poor conditions of labour and environmental standards*

Ethnographic research in shoddy factories shows that the conditions in which these yarns and blankets are made are unsustainable by common international standards, both socially and environmentally. The value realized through processing the donated clothing in the country of origin through to manufacturing new products in India is not created at this point in the chain, and the whole industry survives on producing a high volume of poor quality outputs on low profit margins, with a bare minimum capital investment in infrastructure, equipment or labour.

Whole factories run on subcontracted labour hired by jobbers working to quotas, and workers do not receive minimum employment benefits, do not have the right to associate and have no job security. They work in poor environmental conditions, use old machinery, often with dangerous working practices such as mending moving parts, and suffer respiratory problems from exposure to fibres, dust and chemicals. On average, a man working in a shoddy spinning mill earns c. Rs 180/day, or \$3-3.50 for a 12-hour shift before advances and obligatory deductions etc. Women cutters earn up to Rs70 (\$1.40) a day before deductions for an 8-hour shift. There is no obvious evidence of child labour, but babies and young children often accompany their mothers to the cutting floor for the day.

### *Low quality end-products*

The low-quality blankets themselves contain unrefined, recycled used transformer oils, industrial waste products and chemicals in local mixtures that are largely untested for their impact on human health, either through exposure during manufacture or eventual use as blankets.

Those blankets exported from India by the aid procurement industry as emergency relief are usually bought from larger factories that undergo processes of pre-tendering, auditing and lab testing of products including organoleptic tests. However, the issue of sub-contracting orders, questionable efficiency of auditing practices and the use of procurement agents rather than staff *in situ* remain problems that would likely be familiar to this specialist sector. (Research into potential field problems with blanket quality falls outside the scope of this report but remains an issue.)

90% of the blanket industry output is sold within India to the poor as an affordable option in winter months. As part of the extensive informal economy, it remains unregulated and end products are not tested for their suitability for human consumption. Blankets are sold by weight, which is often bulked out by the addition of salt or flour, reputedly by up to 40%.

### **Implications:**

Developing standards for appropriately discarding textiles is crucial, especially given the lack of information and alternative choices the public currently has, ie either give to charity or throw in the rubbish bin. The secondhand clothing sector in the global north is normally positively framed as being both environmentally friendly (recovering resources) and, in the

case of charities, generating income for institutional goals, but these claims are not founded on substantial research.

Public, private and third sector stakeholders need to develop a deeper understanding of the global political economy of worn clothing and the way in which value is created and distributed through the network. This could help to ensure that the value of used clothing is maximized in accordance with environmental and ethical values, that policy is developed in an informed manner, as well as meeting existing legal requirements. This applies to both reuse and recycling markets. Used clothing is a valuable commodity, testified to by increasing theft from textile banks and doorstep collections. With growing incentives for the public to sell used clothing directly to commercial recyclers as an alternative to donating it to charity, there are serious considerations of how value can be added to this pathway for the third sector. Developing initiatives that support the capture and retention of a greater proportion of the value in used clothing for socially constructive aims could prove to be an important counter-incentive.

## **Further information:**

### **A) Aims and Objectives**

This anthropological research project investigated the industrial recycling of imported worn clothing in the town of Panipat, north India, and evidences its local impact. This summary aims to present the research for policy-makers, commercial firms and NGOs involved in the used clothing trade in the UK.

The study consists of ethnographic research carried out in Panipat and the UK, and researching and collating background data on the political economy of textile recycling. As the principle researcher, [Lucy Norris](#) visited Panipat in the autumn of 2009 to carry out ethnographic fieldwork. This built upon previous research during a year working in Delhi (1999-2000), and subsequent visits in 2005 and 2007. The data documents the manufacturing processes through to the end products in detail, and collected qualitative data about the social, political, economic and environmental contexts in which it operates. Research included interviewing brokers, rag merchants, mill owners and factory workers. Lucy Norris also interviewed dealers in wholesale markets in Delhi that supply the rag factories and sell used clothing across the whole country. This was supplemented by a further two months of filming in Panipat and ports on the Gujarati coast carried out by Meghna Gupta in 2010.

In addition, both Norris and Gupta have interviewed a number of rag merchants, flocking manufacturers and textile recyclers in the UK. An ethnography of a UK sorting factory has been undertaken by Julie Botticello, who worked on the sorting belts as a volunteer for a month. This supported the wider research into the role of the commercial textile recycling industry in the political economy of used clothing, and examined the daily categorization process from the perspective of the sorters themselves, and their relationship to the clothing.

The main objectives are to:

- a) produce a brief report detailing issues of social and environmental sustainability in the industry, and work to disseminate this amongst sector representatives including charities as collectors and retailers, commercial textile recyclers and public policy-makers.
- b) raise public awareness of the complex issues involved in people's own everyday recycling activities. This will be aided by the production of a documentary film, a photographic archive, a public event and access to materials on a website.
- c) Publish articles in academic journals linking these issues to wider theoretical concerns in the social sciences.

### **B) Project funding**

The project forms a part of a wider [ESRC](#)-funded project entitled *The Waste of the World* (RES 000-23-0007). The used clothing project is based in the [Department of Anthropology at UCL](#), and has been investigating the global trade in secondhand clothing with a focus on the recycling of 'end-of-life' textiles. Additional funding for field photography, the making of a short documentary film (*Unravel*, by Meghna Gupta) and the initial design of a website was granted by the British Academy (SG 100952, SG 38685).

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