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# NORDISKE ARBEJDSPAPIRER Nordic Working Papers

## **Fate and Impact of Used Textiles Exports**

Phase One Report

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### Background and aim

Over the last few years reducing the environmental impacts of textiles has been a key issue for the Nordic Council of Ministers, with focus on increasing the separate collection, reuse and recycling of used textiles.

Separate collection rates of textiles vary from 22% in Sweden to 46% in Denmark with the majority of the remainder ending in mixed waste streams. Used textiles collection is predominantly carried out by charities to generate income to fund charitable activities. A large proportion of textiles are sold on the global market.

Knowledge on quantities, final destination countries and the fate of Nordic textiles once they arrive is very limited. There is also a lack of information on whether the net social, economic and environmental impacts of this export are positive or negative.

This project aims to investigate these issues. Under **Phase 1** we aimed to answer the following questions:

- 1. What are the pathways and quantities of used textiles exported from Nordic countries and which are the receiving countries?
- 2. To what extent are flows captured in export statistics? Which flows are not captured in these statistics?
- 3. How do flows for different broad product types and fibre types differ?
- 4. Which regions and countries import the largest volumes of used textiles from Nordic countries?
- 5. Which countries restrict imports of used textiles or are developing import restrictions and why?

Exports of used textiles from four Nordic countries (Denmark, Finland, Norway and Sweden) have been mapped out both using official data from statistics databases and via interviews with the 13 biggest exporters of used textiles, who are responsible for 70% of total collection in the four Nordic countries.

#### Statistical data

UN Comtrade data was used to gain information on *first destinations* for Nordic textiles. The statistical data distinguishes between 'worn clothing and textiles' (predominantly textiles for reuse in their original form) and 'rags' (recycled cloth for industrial use or other purposes). According to the statistical data, exports of worn Nordic textiles increased from 60 000 tonnes in 2011 to 75 000 tonnes in 2014. In addition, around 2 800 tonnes of rags were exported.

Used textiles are directly exported to 115 countries. However, 82% of the direct export is to just ten individual countries all but one of which (Turkey) lie within the EU.

Many of the top direct destinations for Nordic exports receive considerable quantities of used textiles from elsewhere. However, the Nordic export represents a significant share of imports to Estonia, Somalia, Poland, Lithuania and Bulgaria.

#### Information from collectors

Interviews with collectors gave insight into what happens to textiles after their arrival in the first export destination, and to identify their choices with respect to partners/purchasers and the degree to which they control the fate of textiles.

Together the 13 interviewed collectors reported having exported just over 70 000 tonnes of textiles from the Nordic countries in 2014.

The majority are sold to wholesalers or second-hand sorters and retailers to raise money for charitable activities. Donations of textiles as aid or crisis relief is very limited.

Knowledge on what happens to the textiles following export is gappy. Although collectors increasingly require codes of conduct when selecting buyers, these most often concern working conditions for employees. Only a handful of collectors have requirements or receive regular reports on the eventual fate of the textiles.

Roughly a quarter of the 70 000 tonnes of textiles exported by the 13 collectors, comprise textiles that have been pre-sorted in the Nordic countries. The sorted fractions are predominantly exported within Europe but also further afield.

The remaining three-quarters of exported textiles are entirely unsorted ('original'). Unsorted textiles are almost exclusively exported to EU, countries for sorting, mostly in Eastern Europe. This means that waste arising during sorting processes primarily remains within the EU and could be expected to be treated responsibly.

Following sorting the textile fractions are sold on the domestic market or re-exported for sale on the global market. Collectors and their buyers reported 48 countries as *final destination* for the used textiles they had collected in the Nordic countries. Eastern European countries remain dominant, but non-European countries also become important in a way that isn't visible in the statistical data. Around 7 500 tonnes, or 11% of all the exported Nordic textiles end in India and Pakistan, while 12 000 tonnes (18%) end in the African continent.

The end destination is often determined by the quality. The highest quality textiles remain in the Nordic countries or elsewhere in Europe, primarily in the east including Russia. Tropical mix and lower quality textiles are exported to Africa, the Middle East and Central Asia.

It wasn't possible to follow the fate of individual types of textile either by product (shirts, trousers, blouses etc.) or fibre type.

Textile waste, either remains in Europe in the sorting country, where they are down-cycled or disposed of, or are exported to eastern Asia - primarily India and Pakistan - for mechanical recycling. Very little textile waste ends in African countries.

#### **Import Restrictions**

Nevertheless, many African countries, along with countries in other parts of the world inhibit imports of used textiles. This takes place via bans, restrictions and prohibitively high taxes and is primarily motivated by a political wish to protect national textile industries.

There is evidence that these restrictions are undermined by illegal imports from neighbouring countries. Moreover, it isn't clear whether they have been effective in protecting textile industries or whether these are foundering anyway due to cheap imports of new textiles from Asia.

These issues will be investigated in Phase II of this project along with a first assessment of social, economic and environmental impacts and risks.

#### **Codes of conduct**

Should, negative impacts be identified under Phase II, increased traceability and codes of conduct imposed by Nordic collectors could be a potential solution.

A key requirement for traceability is to have both internal quality systems in place and to have external audits that codes of conduct are actually being fulfilled.

Ideal codes of conduct will vary depending on whether the textiles are being donated as relief, sold to second-hand retailers or wholesalers. The latter will be most difficult to implement since wholesalers receive textiles from many different sources. The code of conduct would have to apply to all textiles processed by the wholesaler.

# Sammenfatning

### Baggrund og formål

I løbet af de senere år er reduktionen af tekstilers miljømæssige fodaftryk blevet et nøgleemne for Nordisk Ministerråd med fokus på at forøge indsamling, genanvendelse og genbrug af brugte tekstiler.

Andelen af indsamlet brugt tøj og boligtekstiler varierer mellem 22% i Sverige til 46% i Danmark, og størstedelen af det resterende tøj ender i restaffald fra husholdninger, selvom det stadigvæk har en værdi. Det er primært velgørenhedsorganisationer, der indsamler brugt tøj for at tjene penge til deres godgørende aktiviteter. En stor andel af de indsamlede brugte tekstilerne bliver eksporteret og solgt på det globale marked.

Der er meget begrænset viden om mængder, ruter og tekstilernes skæbne, når de når frem til deres slutdestinationer. Der mangler også viden om, hvorvidt de sociale, økonomiske og miljømæssige effekter af eksporten er positive eller negative.

Formålet med projektet er at undersøge disse problemstillinger. Sigtet med **Fase 1** er at afklare følgende spørgsmål:

- 1. Hvad er mængderne, og hvilke ruter følger de eksporterede tekstiler fra de nordiske lande, og hvem er modtagerlandene?
- 2. I hvilket omfang er strømme en del af eksportstatistikkerne? Hvilke strømme er ikke en del af disse statistikker?
- 3. Hvilke variationer er der i slutdestinationer af forskellige produkt- og fibertyper?
- 4. Hvilke regioner og lande importerer mest brugt tøj fra de nordiske lande?
- 5. Hvilke lande begrænser eller er ved at udvikle begrænsninger af brugte tekstiler, og hvad er årsagerne?

Projektet har kortlagt eksporten af brugte tekstiler fra fire nordiske lande (Danmark, Finland, Norge og Sverige) ud fra officielle data fra statistik-databaser og interviews med de 13 største eksportører af brugte tekstiler, der er ansvarlige for 70% af den indsamlede mængde i de fire nordiske lande.

#### Statistisk data

Projektet anvendte UN Comtrade data til at bestemme de eksporterede nordiske tekstilers *første destination*. De statistiske data skelner mellem

'brugt tøj- og tekstiler' (antageligt tekstilprodukter, der genbruges i sin oprindelige form) og 'klude' (genanvendelige tekstiler til industrielt eller andre formål). Ifølge de statistiske data er eksporten af brugte tekstiler fra nordiske lande steget fra 60.000 ton i 2011 til 75.000 ton i 2014. Derudover blev ca. 2.800 ton klude eksporteret.

Brugte tekstiler bliver eksporteret til 115 lande direkte. Blot ti lande står dog for at aftage 82% af tekstilerne. Med undtagelse af Tyrkiet ligger alle disse ti lande inden for EU's grænser.

Mange af de største direkte eksportdestinationer modtager betydelige mængder brugte tekstiler fra andre steder end de nordiske lande. Men i Estland, Somalia, Polen, Litauen og Bulgarien udgør de nordiske landes tekstileksport en betydelig andel af den samlede mængde importerede tekstiler.

#### Information fra indsamlere

Interviews med indsamlere gav viden om, hvad der sker med tekstiler, efter de ankommer til den første eksportdestination, viden om indsamleres overvejelser om valg af partnere/opkøbere, og i hvilket omfang de kontrollerer tekstilernes videre liv.

De 13 indsamlere oplyste, at de tilsammen havde eksporteret lidt over 70.000 ton tekstiler fra de nordiske lande i 2014.

Størstedelen bliver solgt til engrosopkøbere, sorteringsfirmaer og butikker med det formål at tjene penge til velgørende aktiviteter.Direkte brug af tekstiler som en del af nødhjælp eller kriseunderstøttelse var meget begrænset.

Der mangler generelt viden om, hvad der sker med tekstilerne efter første led i eksportruten. Selvom indsamlerne i stigende grad kræver en code of conduct, når de vælger købere, så vedrører de oftest kun arbejdsforhold for de ansatte. Kun en håndfuld af indsamlerne stillede krav til eller modtog rapporter om tekstilernes eventuelle skæbne.

Cirka en fjerdedel af de 70.000 ton eksporterede tekstiler fra de 13 indsamlere er præsorteret i de nordiske lande. De sorterede fraktioner bliver primært eksporteret inden for Europa, men når også længere ud.

De resterende tre-fjerdedele af eksporterede tekstiler er slet ikke sorteret ('original'). Usorterede tekstiler er næsten udelukkende eksporteret til sortering i EU-lande, primært i Østeuropa. Det betyder, at tekstil- og ikke-tekstilaffald, som er pillet fra de brugbare fraktioner, bliver inden for EU's grænser, og antageligt bliver det derfor behandlet ansvarligt.

Efter sorteringen bliver tekstilerne enten solgt på det nationale marked eller reeksporteret til salg på det globale marked. Indsamlere og deres indkøbere oplyste 48 lande som *slutdestination* for de tekstiler, de havde

indsamlet i de nordiske lande. Her dominerer Østeuropa fortsat, men ikke-europæiske lande spiller også en vigtig rolle, der ikke fremgår af de statistiske data. Omkring 7.500 ton eller 11% af alt eksporteret nordisk tekstil ender i Indien og Pakistan, mens 12.000 ton (18%) ender i Afrika.

Slutdestinationen afgøres ofte af kvaliteten. Tekstiler af bedst kvalitet bliver i de nordiske lande eller andre steder i Europa, primært i Østeuropa og Rusland. 'Tropical mix' og tekstiler af en lavere kvalitet bliver eksporteret til Afrika, Mellemøsten eller Centralasien.

Det var ikke muligt at undersøge enkelte typer tekstiler enten på produktniveau (bluser, bukser, skjorter osv.) eller på fibertype.

Tekstilaffald bliver enten i Europa i sorteringslandet, hvor de bliver 'downcyclet' eller kasseret, eller bliver eksporteret til Østasien, primært Indien eller Pakistan, til mekanisk genanvendelse. Tekstilaffald ender kun i meget lille grad i de afrikanske lande.

### Importrestriktioner

Ikke desto mindre begrænser mange lande i Afrika og resten af verden importen af brugte tekstiler. Dette sker gennem forbud, restriktioner og ekstraordinært høje skatter og er primært motiveret af et politisk ønske om at beskytte den nationale tekstilindustri.

Der er tegn på, at disse restriktioner bliver undermineret af illegal import fra nabolande. Det er desuden heller ikke klart om restriktionerne er effektive, eller om de bliver undermineret af import af billigt nyt tøj fra Asien.

Disse overvejelser vil blive undersøgt i **Fase 2** af dette projekt sammen med en indledende overvejelse af sociale, økonomiske og miljømæssige konsekvenser og risici.

#### **Code of Conduct**

Finder undersøgelsen negative konsekvenser under Fase 2, kan en øget sporbarhed og *code of conduct* adopteret af de nordiske indsamlere være en passende løsning.

Et nøgle-krav for sporbarhed er at have både interne kvalitetssystemer samt at anvende ekstern opfølgning på, om kravene i *code of conducts* bliver opfyldt.

Den ideelle *code of conduct* vil variere afhængigt af, om tekstilerne bliver doneret som nødhjælp eller solgt til genbrugsbutikker og opkøbere. Engrosopkøbere køber fra mange forskellige kilder, og en *code of conduct* vil derfor være sværest at implementere for denne gruppe, da den skulle omfatte alle de tekstiler, der passerer gennem deres virksomhed.

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# 1. Background and Objectives

The Nordic Environmental Action Programme 2013-18 includes the aim that the Nordic region's global footprint should be reduced. The consumption of textiles has been shown by various studies to be the most impacting European consumption area after mobility, food and housing (EEA, 2013; JRC, 2014; Tukker et al 2006 etc.). Nordic consumption of textiles is relatively high by European standards; Danish, Swedish, Norwegian and Finnish citizens consume between 13 and 16 kg of new textiles each year (Tojo et al, 2012; Palm et al, 2014).

Over the last few years reducing the environmental impacts of textiles has been a key issue for the Nordic Council of Ministers, with focus on the post-use phase. The Prime Minister's Green Growth Initiative and the recently adopted Nordic Action Plan for Sustainable Fashion and Textiles includes objectives to increase the collection, reuse and recycling of used textiles in the Nordic countries in order to reduce impacts associated with the Nordic consumption of textiles.

Under one of three Green Growth textiles projects initiated in 2013, a mapping of textile flows in Nordic countries was carried out (Palm et al, 2014). Estimated separate collection rates of textiles following use were found to vary from 22% in Sweden to 46% in Denmark with the majority of the remainder ending in mixed waste streams bound for incineration plants.

The project went on to develop scenarios for how collection rates and subsequent reuse and recycling rates could be increased. Increased collection, reuse and recycling should in general have positive environmental benefits compared to incineration, though the advantages are far more significant for reuse than recycling (Schmidt et al, in press).

The majority of separate used textiles collection in Nordic countries is carried out by charities, although some private operators are also active. Textiles are primarily collected to develop income for charities to fund their charitable activities and textiles are sold on the global market where the highest price can be gained. Models for organisations vary. Some sort part or all of collected textiles domestically, separate off a portion for resale in Nordic countries (typically 10-20%), and export the majority of the remainder for further sorting, reuse and recycling elsewhere. Other organisations export collected textiles unsorted for sorting in other countries. In general the export of used textiles have increased significantly over the past decade (Watson et al, 2014).

There is information available from charitable organisations that textiles are typically exported to the Balkans, Eastern Europe and Africa, but that some also find their way to Asia for recycling following sorting. However, knowledge on quantities, final destination countries and the fate of textiles once they arrive is very limited within the Nordic Council of Ministers and the Nordic governments. This information and knowledge on whether the net social, economic and environmental impacts of this export are positive or negative is needed.

This question has been raised for some time in other western countries and both positive and negative stories can be found. With respect to social and economic impacts, Andrew Brooks from University College, London has found evidence from sub-Saharan Africa that imports of cheap used clothing from western countries negatively affected local textiles production during past decades (Brooks, 2015).

Brooks however also proposes that while cheap imports of second-hand clothes were devastating for the Malawian textile industry, the decline in the clothing industry across most of the continent was due to a complex set of conditions, central to which was economic liberalisation. One result of this was an increasing import of cheap new textiles from Asia combined with a simultaneous privatisation of state-owned textiles factories in Africa which could not compete on an open market (Brooks, 2012). Pietra (2014) agrees with this picture of a more complex set of causes. He goes on to say that producing for export rather than domestic production is perhaps more effective development and such an export industry would not be impacted by imports of cheap second-hand clothing from the west.

Nevertheless, apparently responding to risks, real or not, to the local textile industry, several countries have imposed various types of import restrictions on used textiles while other countries are considering such restrictions (e.g. Tanzania, Kenya, Uganda, Rwanda, Burundi) (Politiken, 2015).

There are also examples of positive local socio-economic impacts, particularly where charities have directly had the goal of providing local jobs via their supply of used textiles. Oxfam UK, for example, has reported on employment creation in receiving countries and how the imports also provide lower-cost clothing for people living in poverty (Baden & Barber, 2015). Pietra (2014) identified large numbers of jobs that had been created in Tanzania around preparing second-hand imports for resale.

With respect to environmental impacts, the import of used textiles, while having the potential to give net global environmental benefits can also be responsible for negative local impacts. An example would be where unsorted textiles are sent to a country with poor waste management systems. The fraction of textiles not fit for reuse might end in a

badly managed landfill or worse discarded in open fly-tips<sup>1</sup>. This was confirmed as an occurrence in Iraq by one of the interviewees for this report whom now is working hard with reducing waste in the flows for the Iraq market. Whether these impacts would offset the global environmental benefits of the reused fraction is unclear.

The Nordic Textile Reuse and Recycling Commitment and associated Code of Conduct currently being piloted for used textile collectors, provides a potential tool for reducing negative impacts while increasing positive impacts. This can take place, for example, by including criteria for organisations on where collected textiles are sent to and how they are managed (Elander et al, 2015). The current criteria set demands for reuse and recycling at the "first end-user of used textiles" but the possible levels of additional traceability are being investigated in the current trial of the Code of Conduct, which will end in September 2016.

Before this or other leverage points can be investigated or proposed, knowledge on the pathways, fate and impacts of exported Nordic used textiles needs to be improved.

## **Overall Project Objectives**

The broad aim of the project is to increase knowledge about the fate of used textiles collected in Nordic countries and subsequently exported to ensure that Nordic policy aimed at increasing the sustainability of textiles is fully sustainable in an international context.

The study aims to answer the questions:

- What are the flows of used textiles from the Nordic region?
- How large are the environmental consequences of exported used textiles and textile waste from the Nordic region, seen from an international perspective?
- Is the export of used textiles currently economically, socially and environmentally sustainable?
- What is the risk that by increasing the separate collection of discarded textiles in Nordic countries we are causing environmental problems in countries with weaker regulations and available resources to take care of used textiles in an environmentally sustainable way?

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 $<sup>^1</sup>$  Flytipping is the illegal dumping of waste in non-registered sites; typically by the roadside or in forests or other natural areas.

## Objectives of Phase 1

The aim of **Phase 1** is to carry out a mapping of current flows of used textiles exported from Nordic countries to their final destination, and to identify import restrictions globally, which ban or inhibit such imports.

Under Phase 1 we aim to answer the following questions as far as possible:

- 6. What are the pathways and quantities of used textiles exported from Nordic countries, which organisations are involved in these pathways and which are the receiving regions and countries?
- 7. To what extent are flows captured in export statistics in Nordic countries? Which flows are not captured in these statistics?
- 8. How do flows for different broad product types (clothes, household textiles) and fibre types (cotton, polyester, wool) and other textiles properties differ?
- 9. Which regions and countries import the largest volumes of used textiles from Nordic countries? Which countries restrict imports of used textiles or are developing import restrictions and why?

Phase 1 also includes an initial analysis of this data:

- Analysis of the possibility and usefulness of increasing the traceability of exported used textiles from Nordic countries
- Recommendations for how the Nordic proposal for the certification of collectors under the Nordic Textile Commitment could be further developed to increase traceability

**Phase 2** if approved by NAG following the completion of Phase 1, will comprise a further deeper investigation of the fate of used textiles in three selected countries, and an analysis of likely socio-, economic- and environmental impacts, benefits and risks.

We make recommendations for a potential group of study countries at the end of this report from which the final three can be selected for Phase 2.

# 2. Methodology

Mapping of textiles flows has already been carried out under a number of previous projects for the Nordic Council of Ministers and for individual countries (Tojo et al, 2012; Palm et al, 2014; Watson et al, 2014, Elander et al 2014). Under those projects, flows of used textiles within Nordic countries were mapped using both data from national statistics offices and from direct contact with collecting organisations, waste authorities etc. The studies include estimations and calculations of exports of used textiles from the Nordic countries but did not investigate in any depth the end destination for these textiles.

Under Phase 1 of this project we have mapped out flows using both existing statistical information and via survey of key Nordic collectors of used textiles.

For this project, due to limited budget, we decided to concentrate on exports from the four largest Nordic countries: Denmark, Finland, Norway and Sweden with correspondingly, the largest exports of used textiles.

Textiles exported from Iceland and the semiautonomous regions of Greenland, the Faroe Islands and the Åland Islands are not covered by the data and surveys in this report.

Before discussing the two main methods we have used for collecting and analysing flows of used textiles out of these four Nordic countries we present a short note on definitions and characterisations of used textiles.

#### 2.1 A short note on definitions

**Used textiles and textiles waste:** In this report unsorted used textiles donated to charities and other collection organisations are not considered as textiles waste since they have *potential* for reuse in their original function<sup>2</sup>. Here we call these 'used textiles' up until the point of detailed sorting, domestically or in other countries. Following sorting those fractions of the textiles which are not considered suitable for reuse are defined as waste. These can be recycled, downcycled, incinerated,

<sup>&</sup>lt;sup>2</sup> The Waste Framework Directive (WFD) (2006/12/EC) states that "'waste' shall mean any substance or object...which the holder discards or intends or is required to discard." This means textiles destined for reuse in the same purpose are not waste.(Morley et al, 2009),

landfilled or otherwise. That said, there is some uncertainty in the industry, and in different EU countries, on whether unsorted textiles should be considered as waste or not (see later) and also whether textiles cut and processed into industrial rags then become defined as a product rather than waste.

Reuse and recycling: under the waste heirarchy, reuse means the reuse of the product in its original form and for the original purpose without any (major) processing underway. Small repairs are not considered as major processing. Recycling when used in this report, covers all forms of material recovery. This can for example be mechanical or chemical recycling back into textile fibres, processing into industrial rags, upholstery fill, insulation and so on. Where the final product has a lower quality than the original product the process this can also be termed *downcycling*.

We have tried to ensure during interviews that the interviewees have the same understanding of reuse and recycling when answering questions.

**Product codes for used textiles:** as is described in more detail under 2.2 below, used textiles are generally seperated into two main product codes under the CN-product code system: 6309 *worn textiles and clothing;* and 6310 *sorted and unsorted used rags and textile scraps.* In general code 6309 should be given to textiles fit for reuse, while 6310 should be given to textiles which aren't fit for reuse and may or may not already have been processed into other products like industrial rags.

However, as will be seen later, a major part of exported used textiles are exported in unsorted form and are likely to contain textiles fit for and unfit for reuse. Discussions with collectors have demonstrated that unsorted textiles (or 'original' as they are known in the branch) are, nevertheless, typically recorded under code 6309.

Product codes and shipments of waste: Textiles appear on the European Waste List, and it is up to the competent authorities in each of the EU countries to decide whether textiles are intended for reuse in their original form, or whether they should fall under the EU Waste Shipment Regulations (Morley et al., 2009). As a rule of thumb textiles under 6309 are likely to be considered as non-waste while 6310 might be considered as waste. However, this may vary from authority to authority. Unsorted textiles also present a challenge for such categorization. Clothing and textiles exported as non-waste from one country may be deemed waste by the importing country leading to legal complications. Some individual cases were identified during interviews of where this had occurred.

### 2.2 Use of statistical data

Import/export databases provide data on the flows of thousands of products and commodities between countries in physical and monetary units.

Used clothing and textiles and textiles waste (rags) are included along with other products in these databases.

However, neither the official import/export statistics nor the background statistical system allows for information on the *types* of used textiles exported, nor the intention for use. This is in stark contrast to new textile products that are represented by over 400 product and fibre types in the CN-product code system and import/export data.

Used clothing and textiles are listed under two 8-digit CN-product codes in import/export statistics, the second of which is further split into two sub-codes:

- 6309 worn textiles and clothing;
- 6310 sorted and unsorted used or new rags and textile scraps
  - o 63101000 sorted used or new rags and textile scraps
  - o 63109000 unsorted used or new rags and textile scraps

In theory *63101000* is split down into further subdivisions of different fibre types but in reality these are left blank in all statistics databases investigated (see also Watson et al, NCM internal report).

As already noted under section 2.1, code 6309 should ideally be given to textiles fit for reuse, while 6310 should be given to textiles intended for recycling. However, unsorted textiles which include textiles both fit and unfit for reuse are typically categorised under 6309, rather than a mixture of 6309 and 6310.

Export data indicates the country to which Nordic used textiles or rags are sent and total volumes (in kg) and value of the exports (in local currency) under each of the codes.

Import/export statistical data is available from individual countries databases and also from EU and UN aggregated databases.

For this project we chose to use the UN Comtrade database. This would allow us to use a single source rather than accessing the various Nordic country national statistics offices. Moreover, the UN database has the additional value of identifying to which countries Nordic exports of used textiles have a particularly high share.

Using the Comtrade stats we carried out the following analysis for used textiles and rags:

• Internal trade between the four Nordic countries, 2011-2014

- Volume of exports from the four Nordic countries individually, and as a whole to other countries and regions, 2011-2014
- Identification of top 10 import countries for Nordic used textiles,
   2014
- Calculation of the share of Nordic imports in the total imports of used textiles to these countries, 2014

It is important to note that calculation of total exports from the collected four Nordic countries includes exports to Iceland, Greenland, and the Faroe Islands, since these are identified as separate entities in the statistics databases. However, these volumes are small.

## 2.3 Survey of collectors

The statistical database can only take us so far in mapping exports of used textiles. The data only provides the first country to which textiles are exported. Since not much sorting of textiles occurs in the Nordic countries, a significant proportion is exported to sorting facilities in European countries. Following sorting a significant proportion is likely to be re-exported again. It is not possible to follow this flow in Comtrade since no 'Nordic label' is assigned to the re-exported textiles from intermediate countries.

A further weakness of the Comtrade data is that it can underestimate exports of used textiles. Exports intended for direct aid relief rather than sale donations rather than for sale in other countries, are typically not included in the statistics which have their basis in value transactions. Moreover, there can be cases where exports within Europe are not registered.

To gain a detailed and more robust picture of exports of used textiles we supplemented statistical data with information gathered from individual collection and exporting organisations. In the Nordic countries a handful of organisations are responsible for the major part of the collection. These are identified in Palm et al (2014).

We carried out structured interviews of the top 2-4 collectors in each of the four countries (see Table 1 in Section 3.3).

Key elements of the interviews included:

- 1. Total volumes they collect
- 2. Quantities exported sorted (fully or partially) and unsorted
- 3. First receiving countries and partners/buyers
- 4. What guides choice of partners/buyers

- 5. The extent of their knowledge of, and influence over, the final destination and fate of used textiles
- 6. Whether the fate of Nordic textiles is different from that of other used European textiles sorted by the same buyers
- 7. What the end destination of various fractions is as far as they can trace
- 8. The degree to which destinations change year on year

The interview sheet used is provided in Appendix A.

With respect to the last point used textiles are increasingly sold on the global market where prices can change relatively quickly. A snapshot of a single year may not be a reliable representative of average flows but given that most sorters have long term agreements with their customers/distributors the data should be fairly representative.

Where possible, interviews were carried out via physical meetings rather than over the telephone to ensure better flows of information. Interviews were followed up by mails and phone calls where necessary to obtain supplementary information.

Follow-up information was also gained from European sorting partners such as SOEX group and BOER group.

Interviews were supplemented with data from mapping exercises carried out by Mepex of UFF/Humana organisations in Nordic countries since 2012 and in the rest of Europe since 2013. UFF/Humana is a key collector in all four of the Nordic countries included in this project.

With respect to point 6, where textiles are exported to a central sorting facility somewhere in Europe it typically isn't possible to separately trace the fate of the Nordic textiles that are mixed together with textiles from many other countries. In these cases we assume that the Nordic textiles are treated in the same way as textiles from other sources i.e. their eventual fate is the same. For a few sorting facilities, the Nordic textiles dominate textiles arriving at the facility and certainty in the fate of Nordic textiles is higher.

One flow that won't be picked up by either statistics or by contact with collecting organisations is the illegal/grey collection. This flow is by definition very hard to track down and previous efforts have failed (Palm et al. 2014). We have, therefore, not attempted to track this flow though it undoubtedly exists.

As can be seen from the questions in the questionnaire survey, the answers given are both quantitative and qualitative. The results presented later reflect this mixture. We want to know not only where textiles end, but also what guides this fate and whether there are conditions, which inhibit collectors from guiding this fate.

## 2.4 Identifying Import Restrictions

The global market for export of used textile is influenced by national trade regulations and international trade agreements. Many countries have in place a variety of obstacles to the import of used textiles based on one or several regulations.

The knowledge about these regulations can be an important element in understanding market conditions for the export of used textiles from Nordic countries and the social and economic effects in the destination countries.

The objective of this part of the report is to provide an overview of existing regulations and, where possible, to explain the background for the introduction of these regulations and also when a deregulation has taken place. The playing field is dynamic, developing within changing economic and political frameworks.

The study is based on a combination of relevant literature and interviews with contacts working in the market for used textiles. It has not been possible to study the legislation and rules in different countries in detail, nor how they work in practice. The report is often based on sources that give relevant information, but do not necessary give a total picture or miss the most up-to-date information. Where possible, different sources have been cross-checked to ensure a certain level of control.

One of the key sources of information on national restrictions is the Office of textile and Apparel (Otexa)<sup>3</sup> under the US International Trade Administration. The Administration maintains a table summarising national restrictions and requirements on imported worn textiles from around the world. We have, however, not considered all countries, but only those most relevant to the Nordic exports of used textiles.

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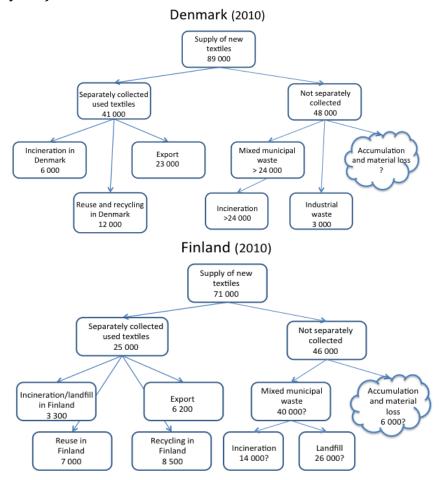
# 3. Flows of exported textiles

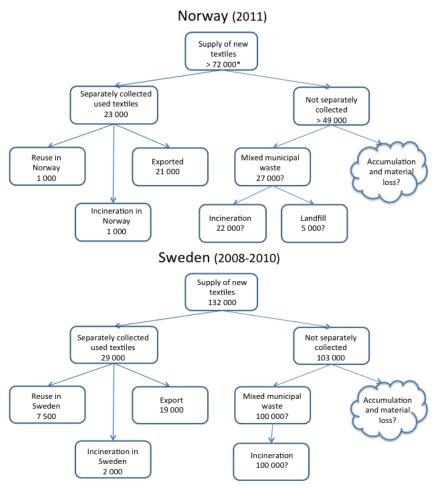
## 3.1 Separately collected textiles in Nordic countries

Flows of new and used textiles in Nordic countries have already been mapped under separate projects both those funded by NCM (Palm et al, 2014; Tojo et al 2012) and by others (Watson et al 2014; Carlsson et al, 2011).

The flows of clothing and household textiles (not including carpets) and similar textiles in business and public organisations (hospitals etc.) for Denmark, Sweden, Norway and Finland are shown in the figures below. These have been adapted from Palm et al, (2014).

Figure 1. Textile flows in the four countries in tonnes (with data years)





Source: Adapted from Palm et al. (2014)

#### Notes:

- For Norway the supply of new textiles put on the market is based on clothing only.
- In 2013, textiles put on the Swedish market had reduced to 121 000 tonnes, and reuse increased to 8 600 tonnes, with export remaining at 19 000 tonnes (Elander et al, 2014). No figures are available for total separately collected volumes in 2013.

Whereas the separately collected quantities are reasonably well quantified, the flows of non-separately collected textiles can only be roughly estimated due to lack of widespread and regular sampling of the composition of mixed waste and bulky waste flows, and lack of knowledge on the quantities of textiles accumulated in households.

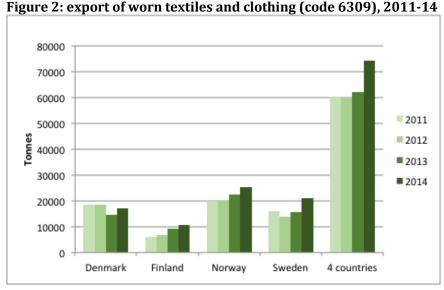
Between 22% (Sweden) and 45% (Denmark) of textiles put on the market end up being separately collected, mostly by charities (Palm et al, 2014a).

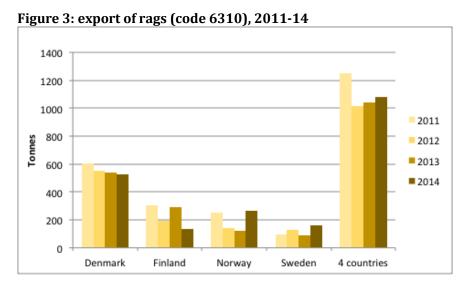
More than half of textiles collected in Finland remain in the country, while the majority of collected textiles in Denmark, Norway and Sweden are exported.

## 3.2 Results from analysis of UN Comtrade data

We begin by noting that all data and graphs shown in this section of the report show only the first destination for textiles exported from the Nordic countries, and according to Comtrade data not direct information from collectors. For final destinations one must look at Section 3.3.

The UN Comtrade data shows that exports of worn textiles increased from 60 000 tonnes in 2011 to just under 75 000 tonnes by 2014 almost entirely due to a sharp increase in 2014 (Figure 2). The quantities of exports of rags are much lower at 1084 tonnes in 2014 (Figure 3). However, as noted earlier, and confirmed by interviews, most exports of used textiles from Nordic countries are unsorted and will include a proportion of rags which nevertheless have been recorded under CN code 6309.





The fall in exports of rags may reflect a reduction in sorting taking place in Nordic countries.

Internal trade of worn textiles between the countries are shown in Figure 4. Interestingly, the internal trade of rags is similar in magnitude to the internal trade of worn textile. Flows of rags between the Nordic countries in fact exceed total exports of rags to the rest of the world. It thus seems as if a good portion of these rags are utilised within the receiving Nordic country for industrial use or otherwise.

Figure 4: Internal Nordic flows of worn textiles and rags, 2014 (only flows exceeding 1 tonne are shown)



Internal trade of worn textiles is relatively insignificant compared with export to the rest of the world.

The UN Comtrade data also allows the identification of the Nordic countries most important trade partners. These are given below for both worn textiles (CN code 6309) and rags (CN code 6310).

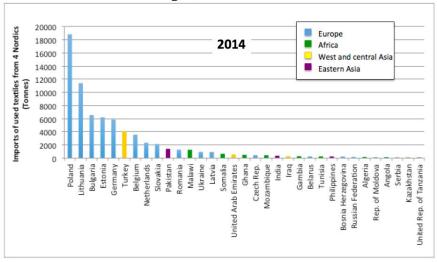
#### 6309 Worn textiles

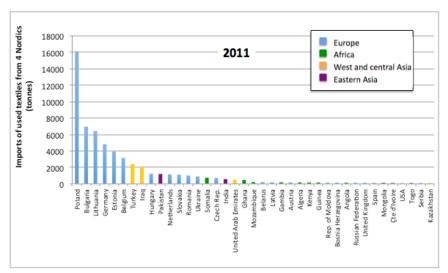
Perhaps the most surprising result is that, according to the Comtrade statistics database, actors in Nordic countries directly exported to no less than 115 different countries in 2014. This gives an idea of the complexity of the modern market for used textiles. Figure 5 shows all countries which received over 100 tonnes of Nordic used textiles in 2011 and 2014. A corresponding table is presented in Appendix B.

The flows are dominated by direct exports to just a handful of countries, almost all European. Seven out of the eight countries which received over 3000 tonnes of Nordic used textiles in 2014, are European. Among

these Poland, the Baltic countries, Belgium, Bulgaria and Germany are known to have a number of large sorting facilities and may represent interim destinations for the textiles.

Figure 5: Countries that received more than 100 tonnes of worn textiles from the Nordic region, 2011 and 2014





Nine African countries, three east Asian and three west Asian countries also receive over 100 tonnes of worn textiles from the Nordic countries. These are more likely to be final destinations. Of these Turkey, Pakistan and Malawi received over 1000 tonnes of textiles, while Somalia, United Arab Emirates and Ghana received over 500 tonnes.

All four Nordic countries are exporting to key European sorters like Poland, Lithuania and Germany. There are greater differences as one moves further afield. It is Sweden and, to a lesser extent Norway, exporting to Turkey and Pakistan, Finland exporting to Malawi and Sweden to Somalia and Ghana (see Appendix B for country level data).

Destination countries for worn textiles changed little between 2011 and 2014 (Figure 5). The top seven importers remain unchanged. The most noticeable developments were a reduction in the importance of Iraq, and the appearance of Malawi as the most important African destination.

Nordic used textiles make up more than 10% of imported used textiles in six countries, which are with one exception (Somalia) from eastern Europe and the Baltics (Figure 6). Over 50% of used textiles imported to Somalia and Estonia have Nordic origin. Here Nordic countries have a particular responsibility to ensure that textiles have a positive overall social and economic effect.

Estonia
Somalia
Poland
Lithuania
Bulgaria
Algeria
Algeria
Algeria
Rep. of Moldova
Rep. of Moldova
Resian Federation
Ghana
Angola
Mozambique
India
United Rep. of Tanzania
India

Figure 6: imports from Nordic countries as share in total imports of worn textiles

At the other end of the scale, Nordic textiles have an inconsequential share in used textiles imported to countries like Ghana, India and Pakistan. The importance of some of these countries at the lower end may increase somewhat as we find out more about the final destination of textiles sent to European countries for sorting.

#### 6310 Rags

Export destinations for rags show a very different pattern with a much higher ratio of Asian countries. This is because the rags have already been sorted and we can assume that these are the rags final destinations. India and to an increasing extent, Thailand have significant industries for shredding and unravelling textiles for use in production of low grade textile products like rugs.

As already noted, however, the overall quantities of *direct* exports of rags out of the Nordic countries are insignificant in comparison to flows of worn clothing and other textile products. However, this picture may

chance when indirect flows following sorting are considered under Section 3.3 below.

Europe
Africa
West and central Asia
Eastern Asia

150

100

50

Certaint India Trailand Intransa Intellegate Africa Turker Intransa Intellegate Africa West and central Asia
Eastern Asia

Reference Turker Intransa Intellegate Africa Intransa Intellegate Intel

Figure 7: Countries that received more than 5 tonnes of rags from the Nordic region, 2014

## 3.3 Results from collectors survey

## Collection and export quantities

We interviewed 13 collectors from the four Nordic countries. In 2014, these organisations collected a total of 82 800 tonnes of donations in their textiles containers and shops. This represents around 70% of total estimated used textiles collection in the countries (see Figure 1 earlier).

The collected quantities for the most part include shoes and waste, although some collectors (notably UFF/Humana) remove large non-textile waste items before weighing. Shoes make up typically 5% of the total weight after waste has been removed.

The collectors have different strategies for both collecting and post collection. Some collect only via containers (i.e. UFF and Trasborg) but where the collectors also have shops, collections are also made in these. For example, the Danish and Swedish Red Cross collect 60% and 100% respectively of their textiles in shops. Shop collection gives a higher quality textile and a much smaller percentage of waste. Some organisations carry out some level of sorting of textiles following collection. Those organisations with shops in the collecting country (all organisations except Trasborg and UFF Denmark, UFF Norway and Humana Sweden<sup>4</sup>,) typically sort a sufficient share of collected textiles to yield

 $<sup>^4</sup>$  Actually UFF has two shops in Norway and four in Sweden but no textiles are skimmed off from collections to supply these

enough high quality textiles for sale in their shops. This sorting may occur in the shop or in a central warehouse. Between 10 and 20% is normally suitable for sale in shops.

Non-textile waste and sometimes also textile waste is also removed during this partial sorting. A few organisations also carry out more thorough sorting. For example, Trasborg fully sorts textiles into 110 different categories for export. The Finnish Red Cross carries out detailed sorting but mostly for domestic purposes, only exporting a little under a quarter. More typically, however, following removal of textiles for own sale and non-textile waste, textiles are sold on the export market as partially sorted – otherwise called pre-sorted in the trade.

Table 1: Collection and export of used textiles\* by 13 interviewed Nordic collectors

Organisation	Coun try	Collected in 2014 (tonnes)	Exported in 2014 (tonnes)	
			Unsorted ('original')	Pre- sorted
Emmaus Björkå	SE	3 200	1 440	736
Human Bridge /Re- turtex	SE	6 800	6 000	700
<b>Swedish Red Cross</b>	SE	5 000		1 000
Humana, Sweden	SE	3 049	3 049	
Myorna**	SE	7 900		
Fretex**	NO	15 150	15 200	5 800
UFF, Norway	NO	8 837	8 837	
Finnish Red Cross	FI	1 000		230
UFF, Finland	FI	12 064	7 291	4 090
UFF, Denmark	DK	1 467	1 467	
Salvation Army	DK	5 750	3 738	978
Danish Red Cross	DK	6 890	128	4 800
Trasborg	DK	5 700	4 208	760
Total		82 807	51 358	19 094

<sup>\*</sup>Including shoes and in the case of unsorted textiles also non-textile waste

All interviewed organisations apart from the Finnish Red Cross also export 'original' i.e. completely unsorted textiles in the same composition

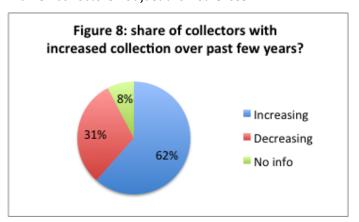
<sup>\*\*</sup>Myrorna and Fretex cooperate in exporting collected textiles.

as they were collected. This contains both textile and non-textile waste (though UFF/Humana remove large pieces of non-textile waste prior to export). The share between sorted and unsorted exports is often related to the organisation's own capacity for sorting. When this has been reached, everything else is exported as unsorted ('original'). Three quarters of exported used textiles are unsorted.

The split between sorted and unsorted textiles is shown in Table 1.

Most collectors report an increase in competition in collection over the past few years as more actors, both legal and illegal, enter the market. The established actors have attempted to maintain collection quantities by increasing the number of containers they operate. Individual campaigns can also increase donation and collection rates. The Danish Red Cross' *Smid Tøjet* campaign in June 2015, has led to a recent increase in collection via all Danish collectors not just the Red Cross.

In Sweden several collectors are experiencing increasing volumes which could be due to new focus from municipalities.

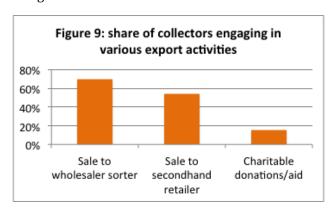


Overall, 8 out of 13 collectors report increasing collection over the past couple of years (Figure 8).

### First destinations of exported textiles

All collectors were willing to share information with us on the first destination of direct exports, though in some cases information on exact quantities was rather vague.

The collectors reported a total of 30 different countries to which they directly exported textiles in 2014. This is significantly less than the 115 identified in the



UN Comtrade data. It should be remembered, though, that while the 13 organisations represent around 70% of total collection; there are many other organisations operating that may be sending small amounts to a large number of other countries.

The primary purpose of exports of used textiles is to raise money for the organisation's charitable operations (or for profit for the single interviewed collector not registered as a charity). Textiles are mostly sold to wholesalers or second-hand retail chains (Figure 9).

Using textiles directly in humanitarian work or as crisis aid is much less usual than it was two decades ago. Of the collectors interviewed only the Finnish Red Cross still uses textiles directly in aid via the Red Cross Network. One further example of a donation-based export is Human Bridge/Returtex which exports to other church-based charities in Baltic countries and the Ukraine to support the social welfare projects of those charities. UFF has also been known under special circumstances to buy back textiles following sorting by their partners in Humana, to donate to particular aid projects in Africa and elsewhere.

Figure 10 and Table 2 show the first destinations for sorted and unsorted textiles exported by the 13 collectors. The first destination of 1 787 tonnes could not be determined and are, therefore, not included in the map but are included in Table 2.

10.000 - 18.000 tonnes 5.000 - 10.000 tonnes 3.000 - 5.000 tonnes 1.000 - 3.000 tonnes 100 - 1.000 tonnes

Figure 10: First destinations of Nordic used textiles exported by the 13 interviewed collectors (see also Table 2)

0 - 100 tonnes

Table 2: First destination of Nordic used textiles exported by the 13 interviewed collectors

Country	Pre-sorted (tonnes)	Unsorted (tonnes)	Total (tonnes)
Poland	(comics)	17 591	17 591
Bulgaria		8 146	8 146
Lithuania	459	7 555	8 014
Estonia	175	7 337	7 512
Belgium	3 987	2 164	6 151
Germany	1 933	2 260	4 193
Iraq	3 828		3 828
Netherlands	1 543	2 187	3 730
Slovakia		1 812	1 812
Pakistan	1 681		1 681
Romania	150	765	915
Malawi	609		609
Mozambique	609		609
Zambia	609		609
Czech Rep.		532	532
Turkey		524	524
India	484		484
Hungary	25	380	405
Ghana	388		388
Latvia	175	56	231
Ukraine	210		210
Russia	161		161
Kazakhstan	98		98
Mongolia	65		65
Angola	64		64
Sierra Leone	45		45
Macedonia	36		36
Burundi	15		15
Georgia	7		7
Unspecified	1 787		1 787
Total	19 145	51 307	70 452

With one exception (Turkey) unsorted exports are reported as going to wholesalers/ partners in European countries for sorting. This is primarily Poland, Estonia, Lithuania and Bulgaria but with significant quantities going to Germany, Belgium and the Netherlands where some of the larger textile sorting groups (Boer group and KICI) have facilities.

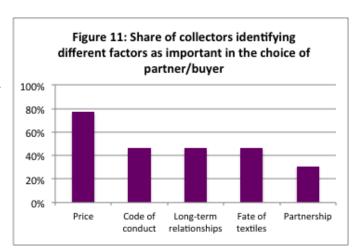
This is a key finding, since exports of waste, both textile and non-textile, are primarily associated with exports of original (unsorted textiles). If this is only exported within the EU one could assume that the waste included in exports is treated responsibly. Of course, this may mean landfilling which lies lower down the waste hierarchy than the incineration, which it would (mostly) have been sent to if it had remained in the Nordic countries, but it should not mean fly-tipping. The possible exception is Turkey, the only non-EU country to which original is exported to. This may need to be the subject of further assessment.

With respect to sorted textiles, these are exported by the 13 collectors to European partners, but in addition there are significant exports to the Middle East, Asia and Africa. Two of the largest reported direct receiving countries are Iraq (3 828 tonnes) and Pakistan (1 681 tonnes).

### **Choosing Partners**

While the primary purpose of collecting used textiles is to raise money for charity work (or profit), organisations identify other key considerations when choosing partners (Figure 11).

Trust is a key issue whether or not this is accompanied by a code of conduct. This can be simple trust in that the partner pays on time, and knows what to ex-

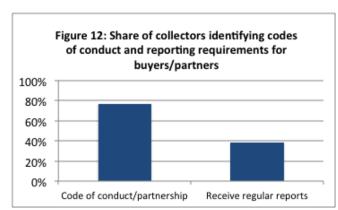


pect in terms of textile quality from the collector.

Collectors, therefore, tend to keep the same buyers over many years, with prices typically reviewed on a six monthly basis. Others, such as UFF have a stronger bond with their buyers via umbrella charity organisations.

Most organisations have a code of conduct or equivalent for their partner/buyers (Figure 12). Codes of conduct are often concerned with working conditions and minimum pay for workers. Myrorna, however, includes a requirement for reuse and recycling in the code of conduct they have with buyers, and carry out both internal and external review of their buyers. The Humana/UFF organisations also carry out external

reviews of sorting partners in order to maximise reuse and recycling as far as possible.



Some other organisations are considering developing these kinds of conditions in the future. For example, the Swedish Red Cross, in an opposing direction to that

taken by Myrorna and EFF/Humana is considering a requirement that exported textiles may only be recycled and *not* sold for reuse. This has resulted from a fear that selling for reuse can adversely effect local textile industries and jobs. However, this requirement will significantly reduce the environmental benefits of the exported textiles (see Schmidt et al, unpublished).

Another condition on use of textiles identified was that by the Danish Red Cross on purchasers of textiles donated from high street clothing chains that these must not be resold in countries where the chain has shops. Similarly, surplus textiles received by the Finnish Red Cross from retailers has to be exported as aid rather than being sold in their Finnish shops.

#### Knowledge of, and influence over, subsequent fate

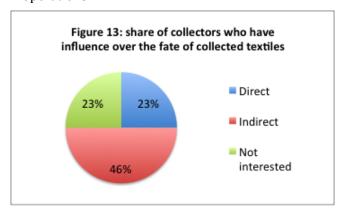
Collectors who have a code of conduct for their buyers or have a strong partnership under an umbrella organisation can obtain information on what subsequently happens to the textiles. However, the share of collectors that actually received this information in report form, or otherwise was more limited (Figure 12).

This led to problems in obtaining data from collectors on subsequent fate. In most cases, collectors, were willing to assist us but had to make special requests from their buyers for information. Due to lack of detail in the first response from the buyers and the lack of time of the collectors to follow this up, some of the data we received was rather basic (see later).

The most detailed and useful data was obtained from organisations who already receive regular reports from buyers, following defined formats. We can hope that this will be required by more collectors in the future.

Most collectors currently have limited influence over the eventual fate of the textiles they sell. Where they do, this is indirectly through partnerships with the umbrella organisations who are responsible for the fate of the textiles (Figure 13).

The exceptions in this regard is Swedish Myrorna who as earlier noted have requirements on buyers for reuse/recycling of textiles and UFF Norway's initiatives in India to improve working conditions in recycling operations.



Some buyers such as I:Collect have their own set of principles for reuse and recycling. UFF Norway is also engaging directly in recycling projects in India.

#### End

#### destinations for used textiles

While almost all collectors<sup>5</sup> provided us with some information on the eventual fate of the textiles they sell to sorters/wholesalers the data is gappy.

Typically, information from a single buyer of several has been provided. Moreover, information sometimes only lists countries which products are exported to without proving a breakdown by quantity or type.

It should also be mentioned that no buyers have information on what specifically happens to textiles they buy from Nordic collectors. Information given is for all textiles purchased by the wholesaler. For some buyers, however, in Bulgaria and Poland, the Nordic textiles constitute a clear majority of total textiles and here the fate of the Nordic textiles is more precise.

Some collectors claim that Nordic textiles have a higher than average quality and therefore have a different fate to the average European textile. This is backed up by a higher price given for Nordic textiles 6 DKK/kg on the market compared to for example 4-5 DKK/kg for Dutch/Belgian textiles. However, without more concrete information on

 $<sup>^{\</sup>rm 5}$  One collector had the data in detail but was not willing to give it to us for confidentiality reasons

this, we assume that Nordic textiles follow the same routes as the average European textile from a given sorter.

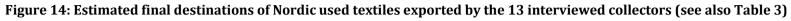
A summary of the assumptions we made to build a map of final destinations for Nordic textiles is as follows:

- Nordic textiles sorted by a sorter collecting textiles from a number of different countries followed the average distribution pattern for the plant
- Where distribution data was given for the largest buyer but no others, we assumed that the remaining buyers from that collector, distributed the textiles according to the same pattern
- Where a certain grade of textiles was sent from a sorter to a
  group of countries but without providing a share for each country, we assumed that those textiles were distributed evenly between the relevant countries
- Unless we received other information we assumed that exported sorted textiles were utilised in the country they were first exported to
- Unless we received other information we assumed that re-exported textiles from sorting facilities in other countries (for example, Poland) are utilised in the country to which they are re-exported i.e. they do not go through any further re-exports

In cases where we received no information at all about the destination of a fraction we made no assumption as to its fate but left it as an unknown.

Final destinations of textiles according to these assumption are shown in Figure 14 and Table 3. Some 6 657 tonnes (approx. 10% of total) could not be assigned to a specific country even using the assumptions above, but could be traced to a region. A further 6 297 tonnes could not be traced at all following arrival at the first destination. These are not shown in the map but are given in Table 3.

Eastern European countries remain important in final destinations but non-European countries also become important in a way that isn't visible in the statistical data in Section 3.2 of this report: Pakistan is the second biggest final destination at over 5000 tonnes and India imports around half of that. Moreover, over 12 000 tonnes, or 18% over the total exports end in the African continent.



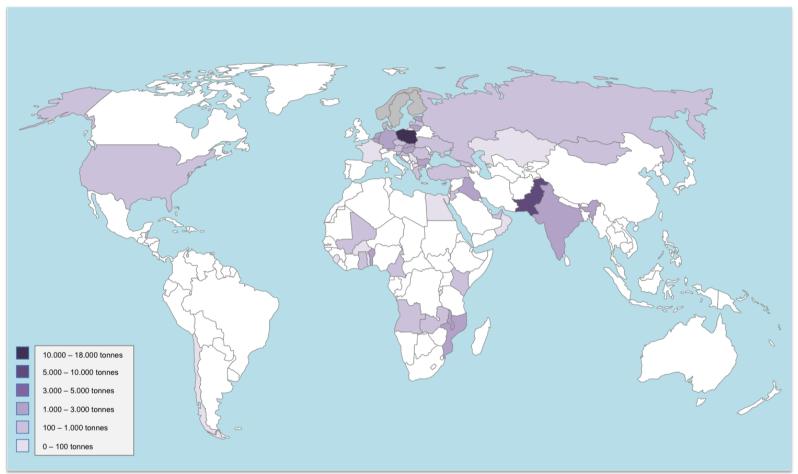


Table 3: Estimated final destinations of Nordic used textiles exported by the 13 interviewed collectors

Country	Imported textiles	Country	Imported textiles
	(tonnes)		(tonnes)
Poland	14 937	Greece	227
Pakhistan	5 103	Kenya	205
Iraq	4 217	Jordan	205
Bulgaria	2 899	Austria	162
Estonia	2 821	Slovenia	162
Lithuania	2 405	Croatia	150
India	2 396	Mongolia	144
Netherlands	1 553	USA	106
Belgium	1 550	Kazakhstan	98
Germany	1 478	Serbia	88
Russia	1 462	Burkina Faso	79
Malawi	1 407	Togo	79
Slovakia	1 364	Chile	70
Hungary	1 311	France	70
Mozambique	1 193	Oman	70
Benin	1 036	Sierra Leone	45
Romania	965	Macedonia	36
Angola	922	Egypt	25
Zambia	893	Burundi	15
Latvia	871		
Czech Rep.	713	Unspecifiable l	by country
Cameroon	666	Africa	5 538
Belize	600	South America	900
Ukraine	591	Middle East	187
Turkey	420	Western Europe	32
Ghana	388		
Georgia	381	Unspecifiable l	by region
Lebanon	371	Global	6 297
Mali	308		
UAE	241	<b>Grand Total</b>	70 452

### Quality, end destination and treatment of textiles

The end destination is often determined by the quality of the textiles. Only a few of the organisations have reported on this, and mostly via information provided by buyers. Typically, the highest quality textiles remain in the Nordic countries or elsewhere in Europe, primarily in the east including Russia.

So-called tropical mix and lower quality textiles are typically exported to Africa, the Middle East and Central Asia. As the name suggests, tropical

mix is not necessarily of lower quality than fractions sold on the European market, but comprises clothing better suited to warm climates.

Textile waste (i.e. non-reusable textiles), meanwhile, either remains in Europe in the sorting country, where it is processed into industrial cloths or otherwise recycled (mostly downcycled) or disposed of, or exported to eastern Asia for mechanical recycling. According to the collectors this latter is primarily India and Pakistan. Very little textile waste ends in African countries.

Beyond this breakdown it wasn't possible to identify where individual used textile types are sent, broken down either by type of article (shirts, trousers, blouses etc.) or fibre type.

While partially implicit in destinations, the final treatment of exported textiles as a share has only been reported on by a few organisations.

There are obviously clear differences between final treatment of unsorted exports and of pre-sorted exports:

- Pre-sorted textiles have been largely filtered for non-recyclable textile waste, which is removed and treated in the Nordic collection country. This reduces risks for the importing country. Exported 'original' (unsorted) textiles will include non-recyclable textile waste and non-textile waste. These are removed and treated in the sorting country. Since all exported original is sorted within Europe this, at least in theory, should end in official treatment facilities: incineration or landfill.
- Pre-sorted textiles have typically been filtered for the highest quality textiles, which means a higher percentage is secondgrade (ending in Africa, Middle East etc.) and rags for recycling (ending in Asia).

Myrorna/Fretex report that for their exported original, 81% is reused-4/5 of that in the sorting country - and 17.2 % is recycled almost entirely in the first sorting country. The remaining 3% is incinerated or landfilled but we don't have a figure on this split.

75% of their exported pre-sorted is reused as second grade, mostly in the Middle East, while 24% is recycled (in sorting country and east Asia).

The UFF organisations report very similar breakdowns as UFF: 80% reuse (mostly in Europe and Africa), 16.5% recycling (east Asia and Europe), and 3.5% waste treatment in the original sorting country (Eastern Europe and Baltics).

Other organisations report a higher percentage of non-recycled waste in the original: 10% or more. Again this is treated in the sorting country.

## 4. Import restrictions

#### Overview of restrictions in selected countries

There is a strong demand for reusable textiles across many parts of the globe, giving poor people the possibility to buy clothes at low cost. Systems have been developed in receiving countries for sorting and distributing imported used textiles. This is often carried out via the informal sector providing large numbers of jobs.

However, some countries have imposed restrictions on the imports of used textiles. The main reason given is to protect domestic textile industries from competition via cheap imports from Europe and elsewhere. Restrictions most often concern second-hand textiles, but can also apply to new textile products. However, free trade agreements can make it more difficult to impose import restriction on new textile products if a country also wishes to have access to export markets for the domestic production.

Table 4: overview of possible import restrictions that can apply to used textiles

Type of regulation	Description		
Prohibitions/bans	These include total bans and prohibitions that de-		
	mand acquisition of a special license before import		
	is permitted. The bans can cover all used textiles or		
	specific groups of products. Furthermore bans can		
	be limited to items for reuse but not for recycling.		
	Bans on import of used underwear are in some		
	countries explained via health concerns (see below).		
Tax tariffs/import duties	These are normal for imports outside of a free area,		
	but the tax level can vary significantly from 0 to 60%		
	of the products value or between 0.2 and 5 US dol-		
	lars/kg of used textiles and can have a great impact		
	on imports at these higher levels		
Health certifications	These normally entail the need for a fumigation cer-		
	tificate or a certificate for disinfection. Fumigation is		
	normally carried out using a gas-canister placed in		
	the container prior to shipping. Some argue that fu-		
	migation has no real effect on possible health con-		
	cerns with the sale of used textiles.		
Bureaucratic walls	Customs bureaucracy and need for special inspec-		
	tions companies present additional restrictions to		
	those caused by regulations and taxes above		

Rivoli (2014) reports that than more than 30 countries worldwide effectively ban the import of used clothing, either through outright prohibitions (e.g., Botswana, Malawi) or impenetrable bureaucratic walls (e.g., Ethiopia, Morocco).

Table 4 gives an overview of various kinds of restrictions in use. We find such restrictions in many regions: Africa, Latin-America, Middle-East and Asia. In this study we have mostly focused on Africa and some other selected countries that are important to Nordic used textile export.

We present some tables below with information mainly drawn from data provided by the Office of Textiles and Apparel (OTEXA)<sup>6</sup> under the US International Trade Administration. They cover restrictions and regulations for the following import codes:

- 6309.00 Worn clothing and other worn articles
- 6310.00 Used or new rags, scrap twine, cordage, rope and cables, and worn-out articles of twine, cordage, rope or cables, of textile materials

Table 5 includes a selected choice of African countries relevant to this study that have strict import regulations. Table 6 provides similar information for a selection of countries from other regions. The tables has been updated where necessary with additional information from literature and information obtained from market players, such as the Federation for Humana People to People, traders and sorting plants.

6

http://web.ita.doc.gov/tacgi/eamain.nsf/ff5dd4f75c7795ea8525762500657ba8/801e189cbcde7ed985257e7600439aea?OpenDocument

Table 5: Import restrictions on used textiles in African countries

Country	Tax tariffs	Restriction and/or ban	Fumiga- tion certif- icate	Other ad- ditional
South Af- rica	60% or 2.500 cents/kg 50 cent/unit 20%	Yes, ban on all except dona- tions	-	Permits needed for used goods not pro- duced in S-A
Swaziland	20-60% or 2.500 cents/kg 20%	Yes for all used textiles and footwear	-	
Zimbabwe	5 UDS/kg 5-15%	No	-	
Botswana	20-60% or 2.500 cents/kg 20%	Yes		
Namibia	20-60 %	Yes	-	Licenses required
Malawi	25 %	Only for un- derwear	Yes	
Zambia	25 %	Only for un- derwear	Yes	
Ethiopia	0 %	Yes(?)	-	
Kenya	35 % or 0.2 UDS/kg 10 %	-	Yes	
Tanzania	35 % or 0.2 UDS/kg 10 %	-	Yes	
Uganda	35 % or 0.2 UDS/kg 10 %	-	Yes	
Nigeria	20 % 5-20%	Yes		
Angola	10%	-	Yes	
Algeria	30%	Yes	-	-
Morocco	25 % 2,5 %	Yes	-	
Cameroon	30%	Yes	Certain cer- tificate re- quired	No import of worn undergarments

Table 6: Import restrictions on used textiles in African countries

Country	Tax tariffs	Restriction and/or ban	Fumigation certificate	Other ad- ditional
Bulgaria	5,9 %	No real ban	Yes	
Turkey	5,1 %	Yes		
Iran		Yes		
Bangla-	5-25 %	-	Yes	
desh				
China	14 %	Yes		
India	10 %	Yes (for reuse)		Units in economic zone can sell worn clothing in the domestic tariff area.
Pakistan	5 % 25 %	-	Yes	Special cer- tificates
Argentina		Ban until 1.1.2016	Yes	
Bolivia	20 %	Yes	Permit requested	Express per- mission
Brazil	35 %			
Costa Rica	14 % / 9%	Worn undergarments and footwear prohibited		DR-CAFTA duty free

Some additional information on restrictions in selected regions and countries are given below:

#### • Europe

There is a tax for import of to Europe on 5,3 % of value. This has an effect on export from Norway into Europe, particularly from Norway to Sweden. The reason for this tax is that Norwegian customs consider used textile to be unknown origin. The tax gives an incentive in the market to set the value lower than the real sales price. There are also several EU-countries that require a certificate of fumigation.

#### Ukraine

There is a regulation in place to prohibit imports of unsorted used textiles and leather products. Ukraine is thereby not a market for original textiles. Sorted textiles for reuse are, however, allowed. Human Bridge/Returtex export sorted textiles to Ukraine for use by local church-based charities.

#### Turkev

Turkey has strict import bans, which however don't apply to certain economic zones where import and export of used textiles is allowed. There are textile sorting plants placed within these economic zones<sup>7</sup>.

#### Zimbabwe

Zimbabwe has a high tax tariff for used textiles that it effectively acts as a ban. Problems with illegal import are reported and there is an on-going discussion about the possibility for deregulation.

#### • Nigeria

In Nigeria used textiles are on the list of products that are absolutely forbidden according to the Nigerian Custom Service. The federal government imposed a textile import ban in 2010 to protect local industries.

However, this has failed due to listed items being smuggled in, badly impacting the nation's economy; Nigeria's small neighbour countries Benin and Togo are on the top-10 list for volumes of imported worn textiles. The factories the Nigerian ban was designed to protect have either become moribund or have completely shut down, rendering thousands jobless.

The federal government recently delisted textile materials and other items from its import prohibition list in a step towards implementing the Economic Community of West African States (ECOWAS) Common External Tariff (CET).<sup>8</sup>

#### • India

India allows import of textile for recycling, but not for reuse. Thus imported textiles must be slashed to ensure they are not reusable. In Panipat north of New Deli there are over a thousand small to medium size factories for recycling these textiles. There

 $<sup>^7\,</sup>http://www.oecd.org/global relations/43361618.pdf$ 

<sup>8</sup> Nigeria: Lifting the Ban On Textile Imports, Editorial Daily Trust 24.07.2015. http://allafrica.com/stories/201507241404.html

is evidence that textiles are prepared here for reuse as well as recycling.

One unwished for consequence of import bans is illegal smuggling of textiles reportedly on a large scale. As noted in the list above, this is reported as a challenge in South Africa, Zimbabwe and Nigeria. Textiles are imported to neighbour countries and then illegal distributed over the borders.

In such cases, tax tariffs on worn textiles can be an alternative strategy and can give income to the states, if they are not too high. High tariffs such as those in Zimbabwe, effectively inhibit all legal imports and encourage smuggling. Tariffs based on a percentage of the value can also be a challenge due to the actual value put on the goods. Often a combination of percentage and a minimum fixed tax are in place, where the importer pays the higher of the two.

Donations for aid and humanitarian purposes are not necessary covered by restrictions. An example is South Africa where the ban on imports of used textiles does not cover donations. Donations can also be tax-free.

The landscape of restrictions is developing rapidly. As noted earlier in this report a group of countries in West Africa that are considering increased import restriction. On the other hand some countries are in the process of removing regulations. In general the market situation for export of second hand clothes to Africa is becoming more challenging and future regulation can have great impact on the market balance for used textiles.

#### Discussion

We have seen that many countries place restrictions on imports of used textiles. Even when imports are allowed, bureaucratic barriers are often daunting. Tariffs can be prohibitive, and health certification convoluted. The use by many African countries of pre-shipment inspection (PSI) companies— essentially privately run Customs authorities— has led to charges of overvaluation, corruption, and simple ineptitude.

The barriers to the second-hand textile trade have in large measure been established as a response to complaints by local textile industry. However, doubts can also be raised over whether restrictions on second-hand textiles is an effective means to support domestic textile industries and protect them from global competition. There are several studies that show that the industry has deceased/failed even with import restriction in place. On the other hand, several sources report increased production and export of new textiles in many African countries.

Under Phase 1 we have not made a study of the development in domestic textile industries over the last decades and related this to developments in import restrictions. This will part of the work carried out in study countries under Phase 2.

# 5. Potential for increased traceability

#### Potential for traceability

Traceability of exported textiles is a key part of the Nordic Textile Commitment, which is being performed, in a trial phase in parallel with this project. The broad overview of the export of used textiles and textile waste presented in Chapter 3 has provided valuable insight in current practice in terms of traceability. It is clear that the export market is complex and includes grey actors and that the interviewed organisations often have a difficult task in finding partners which comply with their requirements/Code of conducts (CoCs) and are willing to report on performance.

Some of the Nordic actors do not follow up on their partners CoCs and some of those who do are finding it increasingly difficult to scale up operations to meet increasing collection volumes. The most apparent environmental risk for receiving countries is inappropriate treatment of waste where this is included along with reusable textiles (in countries importing original). With the lack of sufficient reporting of buyers on what happens with textiles it is difficult to say the extent to which this is happening for Nordic textiles. It is clear that most exporting organisations are seeking long-term cooperation to limit economic and other risks related to short-term contracts.

The market for textile exports from the Nordic countries is diverse both in terms of receiving countries and in terms of the nature of the export. A single exporter can for example have three or more completely different export modes with export for aid; export directly to end distributor in Africa, South America or Asia and export to a commercial sorter within Europe combined with e.g. reimports of sorted textiles.

A basic structure for the different exports is to divide it into

- Distribution for aid;
- Distribution via second-hand retailers and
- Distribution via professional sorters.

There are rarely clear-cut cases where only one is applicable, but criteria can be set up for these three cases individually and then applied for each exporter seeking certification.

#### Distribution for aid

Distribution for aid is no longer common practice for Nordic export of used textiles which is a result of this in general being an inefficient means of providing aid. There are cases of misplaced textiles piling up close to airports in countries where there simply was no need for the types of garments sent.

For several of the interviewed organisations, distribution for aid is sometimes done on a very small scale as part of other aid activities where the organisation has operations in the receiving country. In these cases the textiles fill a concrete need and a carefully chosen fraction of the mix is sent by demand.

The Finnish Red Cross is still sending for aid as main means of export. In this case the textiles are also more or less ordered by the own organisations operations in the receiving country.

#### **Current best practice**

Traceability for textiles sent as aid is very high and it is easy to follow the textiles down to the end user since it is almost entirely done within the same organisation that is exporting. Textiles are carefully chosen to meet a specific need in disaster relief or long-term aid and are often of a crème-quality which avoids waste in the receiving country.

#### Distribution via second-hand retailer

Exports to sorters which are also active in retail of second-hand textiles are common for sorters in Poland, Bulgaria and the Baltics. This is chosen as a preferred export option by e.g. Myrorna/Fretex, Trasborg and partly by UFF/Humana to ensure long-term capacity and consistent export prices. This gives the possibility to trace textiles down to the end user since 80% or more of the reusable fraction is sold directly in the sorting country. This is often included in CoCs but with limited follow up for several actors; Fretex, Myrorna and UFF Norway being exceptions. The structure of long-term contracts and short supply chains together create the foundation for traceability but needs enforcement by exporters to work in practice.

#### **Current best practice**

The current best practice includes a CoC which is enforced by both internal site visits by the exporter and with external audits. Included is also a rather extensive reporting structure to provide reliable statistics and efforts from the exporting organisation to work together with the receiving partner to reduce waste and improve operations. However, the ambitious but complex follow-up processes set limits on rapid increases in collection levels.

#### Distribution via professional sorter

An increasingly more common solution for exports from the Nordic countries is the use of a commercial European sorter, which operates on the global used textile market. This export path gives a clear potential for follow-up on export quality via sample checks to set the price for the Nordic textiles. It, however, makes it impossible to specifically follow the Nordic textiles after being put into the mix. It is, however, possible to trace textiles as part of sorters total mix to distributors. It is also possible to follow quantities and qualities to the different markets, which can be used as rough estimates for reuse and recycling levels. Separate sorting test on sample shipments can document the quality and is a normal procedure at sorting plants.

Beyond the distributors it is generally not possible to follow what happens to the textiles. However, the contracts between commercial sorter and distributors are often long-term to ensure sustainable profits, which should reduce the risk of waste being sent in bales. This would simply be bad for business and make long-term business relationships unlikely.

#### **Current best practice**

Detailed follow-up with current distributors in receiving countries together with qualities, their respective weights for exported textiles and outgoing sorted streams of mixed textiles is the current best practice. This includes division into four quality levels for reuse and a recycling grade and detailed reporting.

#### Recommendations for traceability requirements

A key finding is that current CoCs are to some extent just a piece of paper since there is in general little follow-up by the exporters. A key requirement for traceability is therefore to have both internal quality systems in place and to have external audits that CoC criteria is actually fulfilled.

For textiles sent for aid, traceability should be to the end user of the textiles. Since this is mostly done within a single organisation, reporting should be done regularly to ensure that exported aid meets an actual need.

For exports to sorters with primarily their own second hand retail, requirements should be to follow textiles to end user sales including actual reuse, recycling and waste management. For exports to a commercial sorter it should be possible to give end country distribution for reuse and recycling together with the commercial sorter's waste management. Sample checks should be done by the commercial sorter to see the actual reuse and recycling rate for a number of distributors to provide a fixed reduction of accounted reuse and recycling for the exporter.

### 5. Conclusions and next stages

Exports of used textiles from the Nordic countries have been mapped out both using official data from statistics databases and via interviews with the 13 biggest exporters, who are responsible for 70% of total collection in the four Nordic countries investigated (Denmark, Finland, Norway and Sweden).

The statistical data distinguishes between 'worn clothing and textiles' (predominantly textiles for reuse in their original form) and 'rags' (recycled cloth for industrial use or other purposes). According to the statistical data, exports of worn Nordic textiles increased from 60 000 tonnes in 2011 to 75 000 tonnes in 2014. In addition, around 2 800 tonnes of rags were registered as exported, though we know from surveys that a larger quantity of rags are exported mixed in with reusable textiles.

According to the statistics datasets, used textiles are directly exported to 115 countries. However, 82% of the direct export is to just ten individual countries. All but one of these (Turkey) lie within the EU.

Many of the top direct destinations for Nordic exports receive considerable quantities of used textiles from elsewhere. However, the Nordic export represents a significant proportion of imports to Estonia, Somalia, Poland, Lithuania and Bulgaria. For the first two, the Nordic region is the source of more than half of imported used textiles.

Interviews with collectors, have given us much needed insight into what happens to textiles after their arrival in the first export destination. They have also given us an overview of strategies of collectors with respect to exports, what decisions they make over partnerships and choice of buyers, and the degree to which it is possible for them to follow the eventual fate of the textiles.

Together the 13 interviewed collectors reported having exported just over 70 000 tonnes of textiles from the Nordic countries in 2014.

The majority of exported textiles are sold to wholesalers or second-hand sorters and retailers to raise money for charitable activities. Donations of textiles as aid or crisis relief is much more limited.

As a result, knowledge on what happens to the textiles following export is gappy. Collectors increasingly require codes of conduct when selecting buyers. However, these most often concern working conditions and

workers rights for their employees. Only a handful of collectors have requirements, or receive regular reports, on the eventual fate of the textiles.

Roughly a quarter of the 70 000 tonnes of textiles exported by the 13 collectors, comprise textiles that have been pre-sorted in the Nordic countries. The sorted fractions are predominantly exported within Europe.

The remaining three quarters of exported textiles are entirely unsorted (original). Unsorted textiles are almost exclusively exported to EU countries for sorting, mostly countries in Eastern Europe. The one exception is Turkey, which receives just over 500 tonnes of unsorted textiles annually of which typically 20% is textile and non-textile waste. This means that for the most part, waste arising during sorting processes remains within the EU and could be expected to be treated responsibly.

Following sorting the textile fractions are sold on the domestic market or re-exported for sale on the global market. Collectors and their buyers, collectively reported 48 countries as *final destination* for the used textiles they had collected in the Nordic countries. Eastern European countries remain dominant, but non-European countries also become important in a way that isn't visible in the statistical data. Around 7 500 tonnes, or 11% of all the exported Nordic textiles end in India and Pakistan, while 12 000 tonnes, (18%) end in the African continent.

The end destination is often determined by the quality of the textiles. The highest quality remains in the Nordic countries or elsewhere in Europe, primarily in the east including Russia. So-called tropical mix and lower quality textiles are exported to Africa, the Middle East and Central Asia.

Beyond quality considerations it wasn't possible to identify where individual types of used textile types are sent, broken down either by type of article (shirts, trousers, blouses etc.) or fibre type.

Textile waste, meanwhile, either remains in Europe in the sorting country, where they are down-cycled or disposed of, or are exported to eastern Asia - primarily India and Pakistan - for mechanical recycling. Very little textile waste ends in African countries.

Nevertheless, many African countries, along with countries in other parts of the world inhibit imports of used textiles. This takes place via bans, restrictions or prohibitively high taxes and are motivated by political wishes to protect national textile industries.

There is evidence that these restrictions are undermined by illegal imports from neighbouring countries. Moreover, it isn't clear from the literature whether they have been effective in protecting textile industries or

whether these are foundering anyway due to cheap imports of new textiles from Asia.

We will investigate these issues further in Phase II of this project along with a first assessment of social, economic and environmental impacts and risks. In selecting countries for study we feel the following criteria are important:

- Important markets for worn textile from Nordic region
- Include countries with strict restrictions and with fewer restrictions in same region.
- Include countries with high degree of people with low income and high demand for used textiles
- Have possible sources of information.

Malawi and Zimbabwe are two countries that can fulfil these criteria; new restrictions were put in force in Zimbabwe in 2014 and Malawi is an important end destination for Nordic textiles. South Africa, which also neighbours these countries and has had restrictions in place for a number of years is a further possibility.

India and Pakistan are also important markets for both reuse of low quality clothes and recycling of rags. India has restrictions on imports of used textiles while Pakistan does not.

Turkey could also be of interest. This is the only non-EU country that imports unsorted textiles and it would be interesting to find out what happens to the waste fractions.

The first stage of Phase II will comprise a further screening of information sources in these countries.

Should, negative impacts be identified under Phase II, increased traceability and codes of conduct imposed by Nordic collectors could be a potential solution.

Codes of conduct have limited value since there is in general little follow-up by the exporters. A key requirement for traceability is to have both internal quality systems in place and to have external audits that codes of conduct are actually being fulfilled.

Ideal codes of conduct will vary depending on whether the textiles are being donated as relief, sold to second-hand retailers or wholesalers. The latter will be most difficult to implement since it will be hard if not impossible, for wholesalers to follow a particular collector's textiles through their sorting and marketing systems: wholesalers process textiles from many different sources. In this case, the code of conduct would have to apply to all textiles processed by the wholesaler.

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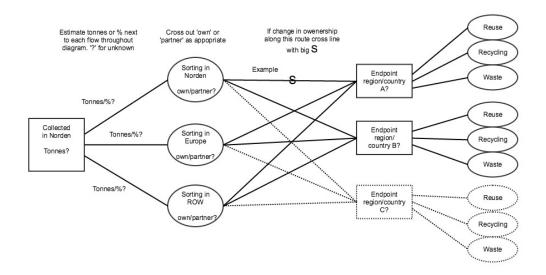
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# **Appendix A:** Interview Form: for collecting organisations



#### Organisation name:

#### Interviewee name and position:

# Total volumes collected domestically (net amount after removal of waste - tons/year)?

Over the latest year?

Previous years?

Are statistics based on measured weights or estimated from volumes and weight per container/box?

#### Sorting and commercial partners

To what extent do you sort textiles yourselves into fractions – rough sorting or detailed sorting? (how many fractions?)

To what extent are you using commercial/other partner for trading and/or sorting? (please give name and contact details) (how many fractions?)

How do you choose your partners and how often do you change them? Amount (or percentage) of collected net volumes eventually exported out of Norden to the best of your knowledge - direct unsorted export of original collection quality out of the Nordic countries - export after own sorting in country (rough or detailed sorting) - domestic sale to commercial/charitable partners (for sorting and then export) Tracing of textiles and textile fractions after export Do you trace the textiles that have passed through your hands onwards after export and how far? What are the main obstacles to tracing? If you trace textiles How many different export pathways have you to Europe and to the rest of the world? (name of actors) Do you receive annual reports from commercial partners on volumes and pathways of the textiles they handle? Do you know if the pathways for Nordic textiles are different than for other textiles handled by these partners due to quality/type differences?

Do you have information on the end destination for exported textiles originally collected by you?
If you have information on end-point countries What were the dominant end-point countries in terms of volumes?
How has this developed over the past five years? Do destination countries change year on year and/or do percentages to each country change?
What types of fractions are sent to which countries?
Do you have any say over which countries textiles are finally exported to?
If you have power over which countries textiles are exported to
How are countries chosen? Do you have a preferred list?
Have import restrictions been an issue? If so where and do you know the reasons for the restriction?
Final fate of textiles
Do you trace the fractions after they have arrived in the end-point country?

If yes what happens to them as far as you know? i.e., further sorting, resale for reuse, donation for reuse, recycling?

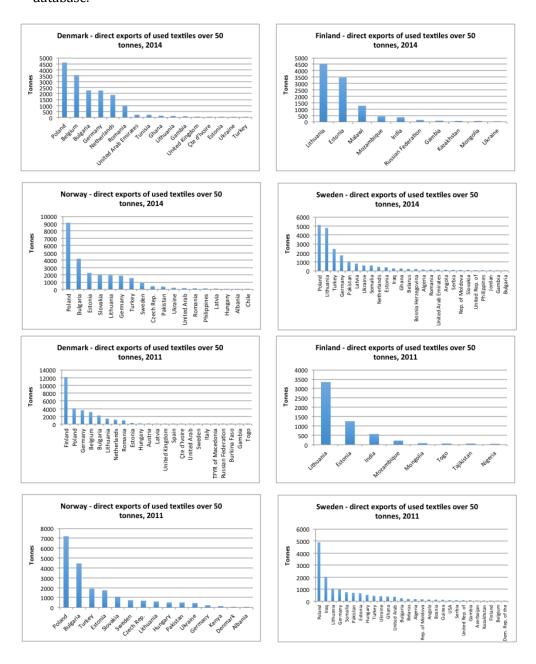
Do you yourselves have operations in these countries? What is the goal of these operations?

# **Appendix B:** Direct exports of used textiles according to UN Comtrade data

The table below presents all countries receiving over 50 tonnes of worn textiles and clothing (CN code 6309) from the four Nordic countries included in the study in 2014 (data behind Figure 5 in main text). The table gives the weight and value of the textiles received by each country.

Receiving	Weight	Value of	Receiving	Weight	Value of
country	of	textile	country	of	textile
_	textile	imports	-	textile	imports
	imports	(US		imports	(US
	(tonnes)	dollars)		(tonnes)	dollars)
Poland	18850	15156594	Tunisia	262	21805
Lithuania	11410	9617812	Philippines	262	307255
			Bosnia		
Bulgaria	6551	4471560	Herzegovina	250	341815
			Russian		
Estonia	6214	4566084	Federation	195	807297
Germany	5866	3654375	Algeria	172	170199
			Rep. of		
Turkey	4070	3025987	Moldova	150	104758
Belgium	3569	2715138	Angola	136	134654
Netherlands	2346	236424	Serbia	124	132104
Slovakia	2147	2205774	Kazakhstan	124	625746
Pakistan	1410	915597	Tanzania	101	99964
Romania	1298	194006	Jordan	93	29708
Malawi	1273	1216594	Uganda	91	44417
Ukraine	955	743215	Hungary	85	77250
Latvia	935	955549	Albania	84	65970
Somalia	657	407332	Cte d'Ivoire	76	99275
UAE	563	375211	Chile	74	30564
Ghana	501	446358	Sierra Leone	68	256189
Czech Rep.	469	561046	Mongolia	67	527234
			United		
Mozambique	441	413198	Kingdom	65	76697
India	362	48490	Lebanon	62	51450
Iraq	305	349998	Togo	61	22123
Gambia	297	225484	Syria	51	74317
Belarus	268	96885			

The graphs below show the key receiving countries for direct exports of worn textiles and clothing from the individual four Nordic countries in 2011 and 2014. The data has been extracted from the UN Comtrade database.



Note: these graphs identify the *first receiving country* after leaving the collectin country. Much of the textiles may well be re-exported again from the initial country following sorting