

## An Interactive Map of Global Patterns of Worn Clothing Exports in the Recent Term

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Through recent examination of U.S. Textile and Apparel Industry competitiveness, Saki et al. (2018) identify *worn clothing* [Harmonized Schedule (HS) Code 6309], as one of six export categories that suggest U.S. export comparative advantage based on the Normalized Relative Comparative Advantage (NRCA) Index. The research finds that worn clothing and carpet rank fifth and sixth in terms of NRCA on a global scale, behind cotton, artificial filament tow, nonwovens and cotton yarn. HS Code 6309 includes worn clothing and other worn articles such as blankets. The implications of worn clothing exports are controversial among stakeholder groups with predominant focus on the importing economies of East Africa (e.g., Baden and Barber; 2005; Kubania, 2015; Wetengere, 2018). This analysis examines global worn clothing exports in terms of destination, to establish an understanding of export patterns. Subsequently, economic, social and environmental impacts can be identified and discussed for marketing and policy implications among both the exporting and importing countries.

Research into the global worn clothing trade focuses heavily on the economic impacts among import destinations in developing countries, with less attention to the exporters who drive this activity. Proponents of the practice suggest that the economic benefits to importing nations outweigh the costs (e.g., Leblanc, 2018) while opponents are concerned with the long-term negative economic and social impacts and global environmental ramifications (e.g., Norris). The flow of secondhand clothing from the developed countries referred to as the *global north* to less developed destinations referred to as the *global south*, is non-transparent, commonly carried out through complex networks of commercial and charity organizations with a focus on profits (Frazer, 2008).

United Nations' *COMTRADE* data are used to examine worn clothing trade flows over the most recent five years (2013-2017). The focal metric for analysis is export values expressed in U.S. dollars. Export data were queried using various time scenarios including: 2013-2017, 1996-2008 and pre and post Multi-Fibre Arrangement (MFA) (1996-2005, 2006-2017, respectively). The five year period was selected based on the goal to identify current impacts and policy implications. To identify complex patterns of trade flows between exporting and destination countries, a visual tool is adopted. An interactive Sankey diagram presented in static form (Figure 1) illustrates destination countries for the top seven global worn clothing exporters. The diagram depicts trade flows between the top seven global exporters and their respective top ten destinations.

Results indicate that the U.S., U.K., Germany, South Korea and China export the highest volume of worn clothing in terms of US dollar value (Table). Collectively, the U.S., U.K. and

Germany account for more than 40 percent of global worn clothing exports. The Rest of World designation (ROW) is the primary destination for all export countries in the analysis. Therefore, the top three individual country destinations, without consideration of ROW, are noted. For the U.S. the top three destinations include Guatemala (11%), Canada (10%) and Chile (9%) while U.K. country destinations include Ghana (14%), Poland (12%) and Pakistan (10%). Germany's top destinations include Poland (12%), the Netherlands (9%) and the Russian Federation (4%). South Korea's top three export destinations include Cambodia (13%), Malaysia (10%) and The Philippines (8%) and China's top destinations include Kenya (12%), Angola (9%) and Tanzania (8%). Results suggest the existence of opaque distribution networks among North American and European exporters which appear to involve sorting and distribution hubs (Poland). Future mapping efforts should trace multiple export destinations and focus on the political economy and stakeholder analysis between distinct trading partners.

Table. Exports of Worn Clothing by Country and Top Three Destinations, 2013-2017

Rank	Export Origin	Value in USD*	Percent	Top three export destinations**
1	United States	3,082.11	15.16	Guatemala, Canada Chile
2	United Kingdom	2,643.00	13.00	Ghana, Poland, Pakistan
3	Germany	2,231.43	10.98	Poland, Netherlands, Russia
4	Korea, Rep.	1,615.50	7.95	Cambodia, Malaysia, Philippines
5	China	1,090.11	5.36	Kenya, Angola, Tanzania
6	Netherlands	1,072.04	5.27	Russia, Belgium, Poland
7	Belgium	806.81	3.97	Cameron, Gabon, Turkey
8	Poland	764.81	3.76	--
9	Canada	739.81	3.64	--
10	ROW	6,280.10	30.90	--

\*Millions

\*\*Top three individual country destinations for worn clothing exports, excluding ROW for top seven export countries, corresponding to Sankey diagram (Figure).

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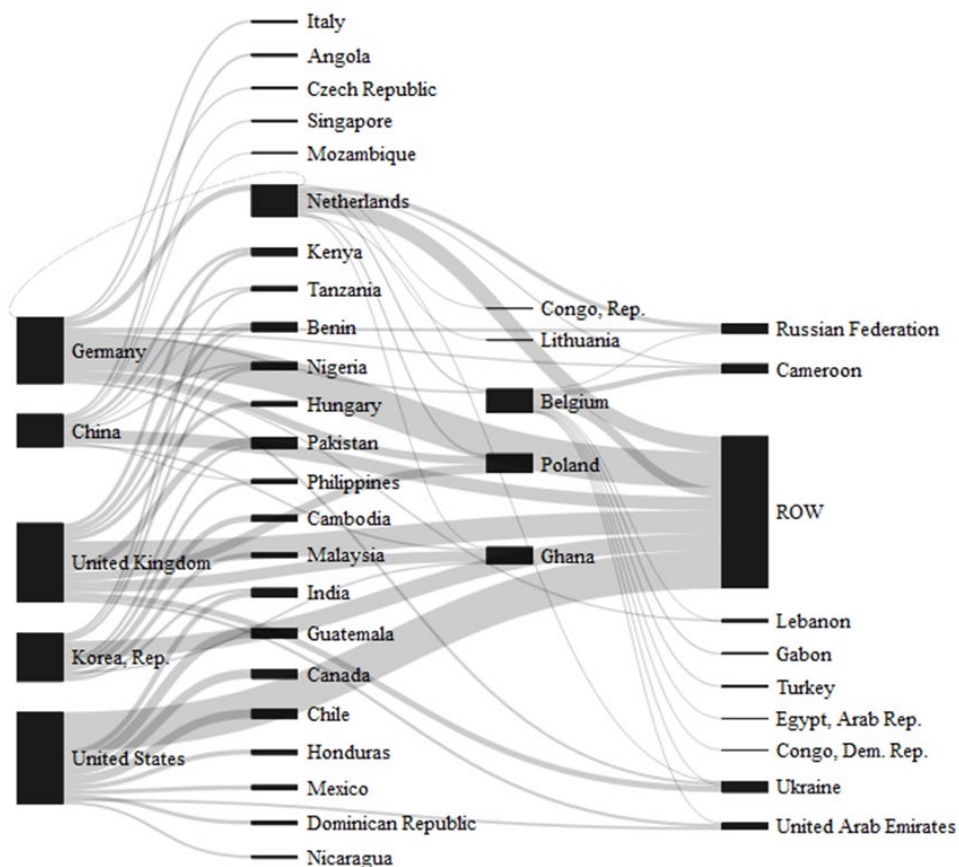


Figure 1: Top Ten Destinations for Leading Worn Clothing Export