

Indigenous

Indigenous materials are sustainably gathered elements that are native to the areas in which the products are made. Conventional fashion knows nothing of this practice. Manufacturers throw together materials from all over the planet – racking up a massive carbon footprint in the process.

TRANSPORTATION EMISSIONS IN THE FAST CONSUMPTION ECONOMY

Our world is warming, there's no doubt about it. Scientists worldwide agree that climate is a very real and present danger for our country and the planet as a whole. They also agree that human activities – primarily burning fossil fuels to power our vehicles and heat and cool our homes – is to blame for this increase in planetary temperatures.

The transportation sector that supports our fast consumption economy also plays a huge role in the warming of our planet. From planes to trains to trucks to ships, we consume a lot of energy to extract resources from the planet, move them to a manufacturing plant, power equipment and machinery, ship finished goods to retail outlets, and then carry waste products away to landfills and incinerators. All of this global crisscrossing pumps massive quantities of greenhouse gases like carbon dioxide into the atmosphere.

The fact is that the transportation sector contributes a huge portion of our country's greenhouse gas emissions to the atmosphere. The US Department of Energy estimates that in 2007, the transportation sector consumed 28.4% of all energy and contributes 33.6% of all carbon dioxide emissions.ⁱ These statistics will provide a picture of how significantly the transportation sector contributes to climate change:ⁱⁱ

- **Size of US trucking sector carbon footprint:** Heavy duty vehicles, including trucks that are used for hauling freight such as consumer goods, account for 19% of all transportation emissions in America. Unfortunately, this percentage is rising – heavy duty vehicle emissions grew by 57% from 1990 to 2003.
- **Size of US airline sector carbon footprint:** In the US, aircraft produce 9% of all transportation greenhouse gas emissions-- that's the largest of all non-road transportation greenhouse gas emissions in the country.
- **Size of the US boats and ships sector carbon footprint:** Boats and other marine vessels produce approximately 3% of all US transportation greenhouse gas emissions. The emissions in this sector have increased by 19% from 1990 levels.
- **Size of the US rail sector carbon footprint:** The rail system in the US provides the most energy efficient mode of transportation, producing only 2% of all transportation sector greenhouse gas emissions. Though this number rose 18% from 1990 levels, if given the choice it's better for this sector's emissions to increase than any of the others due to its higher fuel efficiency.

These are merely the emissions produced by American transportation vehicles – they do not include the emissions associated with products that are moved around the globe in the

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conventional fast consumption supply chain. The shipping industry worldwide contributed to 3.3% greenhouse gas emissions or 1,046 million tons of carbon dioxide emissions of the entire planet.ⁱⁱⁱ

The frightening news is that we are already seeing evidence of rising global temperatures here at home:^{iv v}

- **Rising temperatures:** Eleven of the past 12 years between 1995 and 2006 were among the 12 warmest since we started measuring temperature in 1850. Greater temperature increases are being seen in other parts of the globe. In fact, 2012 was the warmest spring ever recorded in America, representing the largest temperature departure from average of any season on record. And during June of 2012, 3,214 high temperature records were set in the US.
- **Rising sea levels:** Sea level around the world has already risen 1.8 millimeters per year since 1961. Worse still, levels have been rising by 3.1 millimeters annually since 1993.
- **Ocean acidity rising:** Our oceans are 30% more acidic than they were only a few short decades ago. This has tremendous adverse impacts on fish, wildlife, and coral reefs throughout the globe.
- **More intense precipitation events:** Scientists agree that hurricanes and tornadoes will increase in intensity and frequency as the planet warms. This will have devastating consequences for the environment, human life, and economics.
- **Long, severe droughts:** With hotter, drier summers will come prolonged and intense droughts as we have already seen in the US. This could severely disrupt food supplies and cause spikes in prices for the most basic staples in American pantries.

There are yet more negative consequences of climate change, but suffice it to say, we are on the brink of significant changes in our planet if we don't find a way to reduce our greenhouse gas emissions and slow the warming of earth.

This is a huge problem that the fast consumption supply chain needs to solve. One of the major challenges is that consumers today are purchasing goods that are composed of resources found all throughout the world. Globalization has made it possible to source metal from one country, cotton from another, and plastic from yet another. Manufacturers then bring them all together to produce one composite consumer product. Along the way, of course, greenhouse gas emissions are sent into the atmosphere at ever increasing quantities.

FAST FASHION'S TRANSPORTATION FOOTPRINT

The fast fashion industry is a perfect example of the millions of miles a product will travel before landing in a consumer's home. Raw materials used to create clothing and accessories are found all over the world. But when you add shipping to the equation to move these raw materials from the harvest site to the manufacturing plant, then to the assembly warehouse, and finally to the retail floor, you expend a lot of energy for shipping. That means you're increasing the carbon footprint of your finished garment or jewelry.

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Transportation in the fashion sector involves a fleet of trucks, container ships, and planes. Consider for instance, the production of a cotton T-shirt. Much of the cotton is grown in the US or India. From there, the raw cotton may be shipped to one country to be woven and dyed, and then it is shipped to garment factories in China or some other country with low-wage sewing factories. Finally, the finished garments are put in a container to make their way back into the US. That's a lot of miles for just one piece of clothing. Consider these statistics by way of example:

- A single garment will travel to at least three different countries before it is shipped for retail sale.^{vi}
- One international fashion retail company admitted that its garments were produced using over 3,000 factories in 50 different countries.^{vii}

Our desire for greater variety in our fashion is clearly driving an unsustainable supply chain that consumes fossil fuels very inefficiently.

SOURCING INDIGENOUS MATERIALS TO REDUCE TRANSPORTATION EMISSIONS

One of the most effective ways to reduce the transportation emissions is to source materials in the same place the finished consumer goods are produced. Sometimes called indigenous materials, these resources are used in the ethical fashion industry more and more. The Hearts design team works and communicates with our artisans directly to ensure all designs stay as close to the hands of the local artisan groups making our products. All economic situations that may lend need for additional sources outside of local range are taken into consideration and avoided before the design process even begins. Hearts sets out to understand our artisans, their communities, traditions, and the resources that will keep sustaining their artistry.

Indigenous materials are fabrics and materials whose origins are endemic to the region. They are gathered near to where they are used to create a final product.

Sustainable fashion accessories and clothing often contains indigenous materials instead of those imported from another location. Creating indigenous clothing and accessories helps to minimize the energy impact of moving materials around the globe. It also helps to create sustainable communities where local skills found in the community are used to gather, create, and assemble eco-friendly clothing and jewelry. This start-to-finish process helps to stimulate local economies, keep traditional practices alive, and support sustainable development in those communities.

In our Hearts indigenous fashion, we use a wide variety of materials that are sourced close to where the products are created by our artisans. Here are some examples of the indigenous materials we use in our eco fashion line.

ALPACA

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Alpaca, soft wool that is produced from living alpaca animals, is incredibly silky and lustrous and is warmer, softer, and hypoallergenic (compared with wool from sheep). The raising of alpacas for their wool originated in Peru in the Andes mountains where wild alpacas are commonly seen. They are also raised in other regions of North and South America, as well as Australia and New Zealand. Alpacas exist in gentle herds, and the animals are usually sheared once a year like sheep. Indigenous people then use their wool to create a variety of fashion pieces in close proximity to the very animals that provided the materials.

FOSSIL MATERIALS

Fossilized materials are a new trend in sustainable fashion today. Fossil jewelry is made from materials locally collected from abandoned mines, rock quarries, or the nearby landscape and represents a unique and interesting take on natural fashion materials. They remind the wearer both of the origins of life and the natural beauty all around them. There are a variety of different fossil materials used to make eco fashion accessories, including things such as walrus tusks, fossilized coral, fossilized shark teeth, and ancient stones.

PLANT-BASED TEXTILES AND MATERIALS

In many regions, communities are able to grow, spin, and weave fabrics using materials that are available locally. These indigenous fibers can be created from the fluffy components of seedpods, like cotton, or from the string fibers found in plant stems, such as flax linen or hemp. Plant fibers are renewable, natural, biodegradable, and comfortable to wear, making them a favorite of fashionistas around the world.

Hemp is an easy to grow plant that can be cultivated organically and has amazing benefits to the local ecosystems. It can be grown in nearly any climate, and is found in Canada, Spain, China, Korea, Japan, Western Europe, Africa, Egypt, and France.

Flax can be turned into wonderful linen fabrics that are durable and have a soft hand. Flax is also incredibly comfortable and color-absorbing. It is native to Mediterranean and Middle Eastern regions, though it is also grown in Africa and Western and Eastern Europe, as well as New Zealand.

Cotton, which is one of America's favorite plant-based textile fibers, is of course soft and comfortable. It is cultivated around the world, in regions as diverse as the Americas, Africa, India, Mexico, as well as Australia and Pakistan.

Other plant-based materials used in ethical fashion today include things like capim dourado. It's a golden grass that is grown in the Jalapao region of Brazil. Indigenous people weave the grass to make handicrafts and natural jewelry such as earrings, bracelets, and belts.

HEARTS' COMMITMENT TO LOW CARBON FASHION PRODUCTION

By choosing indigenous resources for our eco fashion, Hearts is working hard to reduce our carbon footprint. At the same time, we are realistic about our efforts. While we do everything we can to

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limit the transportation of materials and finished products by choosing indigenous whenever possible, there are still many times when we have to engage in the transportation of items as we produce them. To shrink our carbon footprint that results from transportation emissions, we partner with CarbonFund.org to offset any remaining greenhouse gases we produce as a result. This commitment to operating carbon neutrally is our way of fighting climate change.

GREEN LIVING TIPS FOR INCORPORATING MORE INDIGENOUS MATERIALS INTO YOUR LIFE

1. **Buy local:** When you purchase goods created by local artisans and farmers, you help to support your community's economy, provide local jobs, and of course, reduce the transportation emissions produced to get that finished product into your home.
2. **Check labels:** Whenever purchasing something at the store, turn it over and check to see where it was produced. You'll soon discover the global nature of our supply chain. Hearts supports any educated decision whatever the reasoning, and that which speak closest to your passions. Whether you are supporting local artisans, or reaching out across miles to support fair trade artisans who craft with indigenous materials, a conscious consumer is a powerful tool in promoting change.
3. **Choose recycled:** In most cases, recycled products are created using recycled materials that were collected from within your own community or country.
4. **Eco shopping emissions:** You can reduce your emissions related to shopping by getting to the local store using a bicycle, your own two feet, or public transportation. Once you get into the groove of using alternative forms of transportation, you'll find it easy, and a great way to save money too.
5. **Grow your own:** If you have space in your yard or a local community garden near your home, why not produce your own food by planting a vegetable and fruit garden? This indigenous food supply option will reduce the transport emissions of your foods and help you produce healthy, delicious produce that's organic, too!
6. **Talk to your politicians:** One of the best ways to fight climate change is to get your politicians to take the threat seriously. We need tougher legislations in the US for vehicle emissions, and we need a carbon trading scheme that puts the burden of climate change on those producing the emissions – the manufacturers and transport companies. So tell your political representatives you want to talk about climate related issues in the next election.

ⁱ "U.S. Primary Energy Consumption by Source and Sector 2007," Dec. 5, 2008, www.eia.doe.gov; and "Emissions of Greenhouse Gases in the United States 2007," Dec. 5, 2008, <ftp://ftp.eia.doe.gov>

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- ⁱⁱ *Greenhouse Gas Emission from the US Transportaton Sector 1990-2003*. (2006, March). Retrieved August 14, 2012, from US Environmental Protection Agency: <http://www.epa.gov/otaq/climate/420r06003.pdf>
- ⁱⁱⁱ *Bridging the energy-efficiency gap in shipping: you can't manage what you don't measure*. (n.d.). Retrieved March 22, 2012, from The maritime research newsletter from Lighthouse: http://www.lighthouse.nu/CommonResources/Files/www.lighthouse.nu/Newsletters%20PDF/Newsletter_specialissue_09.pdf
- ^{iv} *Primer on Transportation and Climate Change*. (2008, April). Retrieved August 14, 2012, from US Department of Transportation: <http://downloads.transportation.org/ClimateChange.pdf>
- ^v McKibben, B. (2012, July 19). *Global Warming's Terrifying New Math*. Retrieved July 27, 2012, from Rolling Stone: <http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719>
- ^{vi} *Energy and waste*. (n.d.). Retrieved March 22, 2012, from Ethical Fashion Forum: <http://www.ethicalfashionforum.com/the-issues/energy-and-waste>
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