

# How Cashmere Farming can harm the Environment - Dessertification

For the last 100 years and more cashmere production has climbed to levels today that are unsustainable and pose a huge threat to the environment in the region of Mongolia and Inner Mongolia.

What were once beautiful unspoilt grasslands on the Mongolian plains are now deserts, ravished by herds of goats kept by nomadic Mongolian herders eeking a living from their annual cashmere clip. Goats forage on literally any living plant, eating not just the grass but also their roots and turning once lush green grasslands into deserts. The ever increasing demand of the west for beautiful soft cashmere has encouraged such growth in the goat population that it has had a devastating impact on the ecological balance in this region.

## The true cost of cheap cashmere – the environmental impact

We all appreciate being able to enjoy life's luxuries for less but the High Street's recent fascination with cheap cashmere is having a devastating impact on the environment in Mongolia and Inner Mongolia, China. So called 'cheap cashmere' is cheap for a reason and it seems comes at a hefty price to the environment.

In less than 10 years, a deluge of cheap cashmere from China has transformed a centuries-old industry, stripping the plush fabric of its pricey pedigree and making it available in every high street store. Of course, like everything, cashmere comes in many grades of quality and if you're a cut price retailer there's always ways to get the price lower – and for some consumers, the mere thought of wearing some of the soft stuff on your back is enough of a treat no matter how poor the grade of cashmere used or how it performs – just as long as it's from a goat! (in some cases other fibres are mixed with it too) However those with any sense of realism recognize that when something looks too good to be true, it generally is, even if it bears the name of a reliable high street brand name. Watching the traditional English, Scottish and Italian cashmere industries decimated by the emergence of Chinese cashmere is no real surprise - it was inevitable – but there have been some notable brands emerge such as Pure Collection, that have confounded critics their Scottish cashmere industry critics and given the consumer cashmere of a quality they too would be proud to offer even at their higher price points, let alone in more contemporary styles than they had ever managed and at prices that represent real value for money to consumers – in essence these kinds of brands stole a march on the incumbents and continue to go from strength to strength.

But today 100% cashmere sweaters go for as little as £29 and at first sight it seems cashmere is all of a sudden just as affordable as wool. But behind this new 'Affordable Cashmere' tag is something the consumer rarely sees: the cascade of consequences around the world when the might of Chinese production and western consumption converge on a scarce natural resource.

With all the grand ways to measure the impact of China's ascent – the mountains of exports, the armadas of oil tankers – there might seem little reason to take stock of cashmere. Yet the improbable connection between cheap sweaters, Mongolia's prairies and even the air we and fellow humans breathe from the USA to Korea captures how ordinary shifts in the global economy are triggering extraordinary change.

This is the story of how your £29 cashmere sweater is making vast ever increasing deserts from once lush grasslands on the Mongolian steppes. The country's enormous herds of cashmere-producing goats have slashed the price of sweaters. But they have also helped graze Chinese and Mongolian grasslands down to a moonscape, unleashing some of the worst dust storms on record.

China's breakneck consumption of raw materials is part of an economic revolution that has lifted 400 million people out of poverty, but at a growing environmental cost around the globe. China's demand for resources has proved strong enough to turn its grasslands into a dust bowl. It's impossible to say how much any single product contributes to China's air pollution. But the spike in demand for cashmere is taking its toll – a cost that never appears on any store's tag. And many consumers are unaware of the link.

Cashmere goats are hardy animals with a durability to withstand China's punishing north, where summer boils to 107 degrees and winter sinks to 33 degrees below zero. Inner Mongolia is home the best pedigree breed of goats for cashmere production and produces the world's most expensive cashmere, that downy under layer of a goat's hair that sells for at least six times the price of ordinary wool. Side by side under a microscope, cashmere makes a single human hair look like rope – it is 1/16th as thick as the human hair and 8 times warmer than wool.

China's mythic grasslands, one of the world's largest prairies, is running out of grass. The land is so barren that herders buy cut grass and corn by the truckload to keep their animals alive. Goats are so weak that some herders carry the stragglers home by motorcycle. Today life expectancy for most goats is 10 years, half the life span of their parents. The animals' birthrate is sinking, too and even the cashmere has begun to suffer. Hungry goats are sprouting shorter, coarser, less valuable fibre.

Until recently, not much had changed in the business since the 16th century, when Kashmiri craftsmen spun shawls out of material delivered to India by Silk Road caravans from China, Afghanistan and northern Persia. Very little ever came from Kashmir, but the name stuck. By the early 19th century, French Empress Eugenie created an icon by wearing shawls delicate enough to be drawn through a ring. In the 1870s, Scottish mill owner Joseph Dawson mechanized the processing of cashmere, and a blue-blood tradition was born.

From the grasslands to the shelf, it was a stable, stodgy business.

Deng Xiaoping changed all that. In 1979 the Chinese leader launched his drive toward a market economy, and China's garment industry exploded. In a pattern that would ripple through products from electronics to furniture, China swiftly claimed the bulk of the world's \$350 billion textile trade.

It now exports an estimated 20 billion finished garments a year, more than three pieces of clothing for every person on Earth.

As with everything from groceries to clothing, high-volume retailers such as Asda Wal-Mart, Tesco and Marks and Spencer have changed the way consumers think about cashmere prices. But this low-price revolution is putting pressure on the cashmere business and the land that sustains it.

So many cashmere plants and other industries have opened in Inner Mongolia that authorities must ration water, forcing each factory to close for days at a time. Herders are forgetting the names of grasses that have vanished as their goats have helped denude the land.

Desertification – the erosion of the fragile grasslands to desert – is a huge problem. All types of goats are rather voracious and tend to damage the fragile pasture and though the Chinese government are doing and have been doing quite a lot to lessen the impact, the truth is that few of the large western companies that are profiting from the growth in production are interested in the problem. Cashmere is not like cotton, it's a very limited natural resource and these companies have little regard for the impact of their actions – just for a headline – 'cheap cashmere here'.

The limits of that resource have become impossible to ignore. On the edges of the grasslands bright yellow sand dunes rise from the horizon. Without grass and shrubs to hold the dunes in place, the deserts are expanding by nearly 400 square miles a year. The land, it seems, is reclaiming itself from the people.

A herding family will watch what animals bring the most economic benefit and over the years they have shifted from camels to goats, whose hair is more lucrative. But details as seemingly insignificant as the shape of a hoof or the style of eating were overlooked. It's rather similar to ballroom dancing with someone who steps on your foot - goats have stiletto heels which break up the delicate plants that hold the dust in place whereas camels have broad, soft pads. So a camel can tread on you and you wouldn't feel it.

Goats also are expert foragers, they graze down to lower levels and pull up roots, where a camel would be browsing. The goats nibble at the bark around seedlings which transports nutrients to the plant, so once that bark has been damaged, the plant will die.

Across Inner Mongolia, the number of goats has soared tenfold from 2.4 million in 1949 to 25.8 million in 2004. Today, China's grasslands, the world's third-largest, are turning into deserts. In just five years, from 1994-99, the Gobi Desert expanded by an area larger than the Netherlands, according to the U.N. Environment Program. This has been reversed to an extent by action taken by the Chinese government but the environmental impact is wider than one might immediately expect. Increasingly dust storms are occurring across the whole of the Asian continent and the effects are being felt as far away as Washington in the USA.

In Beijing April 2006 a blizzard of dust hung in the wind and blanketed cars, trees and rooftops. It mixed with industrial pollution and formed a soupy cloud. Environmental officials warned children and the elderly not to open windows or go outside while the city weathered the worst air pollution of the year.

Such storms are increasingly common. In the 1950s, China suffered an average of five dust and sand storms each year; in the 1970s, the average rose to 14, and in the 1990s storms struck 23 times each year, according to a 2005 study by the Asian Development Bank. That study found that for the past decade, Inner Mongolia's growing deserts have been the source of most sandstorms originating in China.

A storm in 2002 forced 1.8 million South Koreans to seek medical help and cost the country \$7.8 billion in damage to industries such as airlines and semiconductors, the state-run Korea Environment Institute said.

Scientists thought that was as far as China's pollution could reach. But a wave of new research is detailing how China's dust and dirty air hurtle across the Pacific, fouling the sky, thickening the haze and altering the climate in the U.S.

There was one storm which started in Inner Mongolia which reduced visibility in Colorado enough to make the national news. It continued east, and the last measurement was in the Canary Islands off the west coast of Africa. What scientists call trans-Pacific transport is an airborne highway of dust and pollutants.

The goats are not the only contributors but they do play an important role. Dust from the animal-ravaged grasslands is snatched by wind and sent east, where smokestacks frost it in a layer of pollution. Together the noxious brew reaches the U.S. within five days, where it can combine with local pollution to exceed the limits of healthy air.

But the damage is not limited to the environment, of most concern are ultra tiny particles that lodge deep in the lungs, contributing to respiratory damage, heart disease and cancer. One storm that began in China and Mongolia in spring 1998 caused a spike in air pollution that prompted health officials in Washington, Idaho, Oregon and British Columbia to issue warnings to the public.

Asian dust already accounted for 40 percent of the worst dust days in the Western U.S. in 2001, according to a study by researchers at NASA and Harvard. Chinese environmental authorities recognise the damage contributed by overgrazing and are struggling to stem it. They have stitched massive checkered straw mats into the surface of the desert, dropped seeds from planes and planted millions of trees nationwide. Nothing has solved the problem.

At Pure, we are a small company but we have made enormous progress in finding a solution to this problem – it is a small start but if every other company were to follow – the grasslands could begin to reclaim the land that has become desert in recent years through over grazing.