Case 112

Clustering Cashmere with the regeneration of savanna and preservation of a 5,000 year old tradition

Executive Summary:

If you buy a cashmere sweater over the internet, then Paypal, which secures your cash electronic transfer will earn as much money on the sale as the sheep herder who had to endure the winter months under the moon at minus 35°C in order to produce the natural cashmere. Cashmere is a strong brand and demand has been rising steadily. Though the production of lighter fibers and cheaper production techniques, the overall demand for cashmere has been rising to the point that the number of goats is destroying the fragile ecosystem around the Gobi Desert, both in Mongolia and China.

The Blue Economy proposes a solution: change in the business model that is based on the market economy but that recognizes the unique role of the herders and the need to preserve the ecosystem. Instead of subjecting the herders to an ever lower world market price which is decided by the buyers and the processors, the herders should be compensated like designers or inventors. A 10% commission on the sales price to the consumer would increase revenues 12-fold. Most herders immediately reduce the herd and so relieve pressure on the land. This is what the Blue Economy Team is pursuing jointly with herders' cooperatives in Mongolia.

Keywords: cashmere, ecosystems, Gobi Desert, Goyo, designer, commissions, Paypal, business model, desertification, specialization, outsourcing, unintended consequences, tree planting, value chain, custodian of the Earth,
Securing the Culture of Cashmere in the 21st Century

An Inquiry into the Design of Virtuous Business Models

Short Essay by Prof. Gunter Pauli
founder of ZERI and designer of The Blue Economy
August 2016

© 2016, Pauli
If you wear a fine and soft cashmere sweater, then you are likely to contribute to the desertification of Mongolia. I did not like the idea when I stood at the edge of the Gobi Desert, but the hard reality is that we are often not aware of the unintended consequences we cause wearing some of the finest clothing. Even if that organic sweater carries an organic label, it does not automatically imply that the absence of chemicals turns the goats’ hair wear sustainable. An ever rising demand puts excessive pressure on production. Whenever the number of grazing goats increases in this fragile savanna bordering dry lands, the desert expands. Thus, the question to ask is: if the best response is planting trees to stem the expanding desert as dozens of NGOs attempt to do, or should we instead focus on designing an economic system that improves the livelihood of the herders?

When we analysed the value chain of a cashmere sweater bought over the internet, then it was with dismay that we realised that PayPal® earns as much on the sale of this sweater for securing the payment as the herder does. He dedicates his and his family’s life to the wellbeing of his animals and the careful shaving of the goat's hair, which only grows into the softest
variety if the animals survive harsh winters in the open, accompanied by their herder. The only way for herders to survive - as viewed by economists - is to adopt this modern market mechanism called "the supply chain management". This tight control of all inputs aims to cut costs, paving the way to own more goats which - by law - graze for free on public land, and to reduce the burden of washing, spinning, dying, weaving, sewing and selling through outsourcing each function to a specialized operator. This expert niche players are mainly based in China which is responsible for 40% of the cashmere production while the majority is produced in Mongolia.

We consider it normal that the designer of a dress gets 10% of the final sales price of clothing; we also consider it normal that the provider of an industrial design is compensated with royalties on the products and services that emanate from this creation. It is therefore a surprise that everyone (especially economists) expect farmers and herders to subject themselves to the "world market price" and accept whatever value is attributed to one kilogram. Everyone else in the value chain adds their commission to the base cost. Unfortunately, the large majority of the service providers care little to know if the price per kilogram paid to the herder offers his family a livelihood or not.

The promise of increased demand if the end price drops stimulates "the custodians of the earth" to produce more. This kicks off the search for economies of scale at whatever environmental and social cost. We all know that the more goats, the more desertification. It is a predictable recipe for
disaster. However, there is a second recipe for the demise of traditional industries like cashmere that have been thriving in and around Mongolia for 5,000 years: specialization. The higher the volume, the more pressure by experts to impose standardisation. This leads to less creative input by qualified workers, turning people into machines pressing the margins to all time lows. This honors the quest for ever lower end consumer prices to stimulate more demand since the price elasticity for a desired product like cashmere is strong: a reduction in price leads to much higher demand. The promise of higher volumes is more than profit, riding the learning curve of high volume and low margin opens the gateways for professional services, which are added to the cost of materials.

When traditional nomads who have herded these goats for millennia only see this short term reality presented by foreign experts with business degrees and financial expertise, then they have been prepared to risk overgrazing while outsourcing to the cheapest, reducing their role to herding and shaving. The downside is that the herders now have embraced a production and distribution model that offers no wealth, not even a real revenue. The hardship that follows is well documented and will stop their children from dreaming of ever being a goat herder. The next generation believes that their future lies in migrating to the city. Soon, there will be no
more cashmere for sale since the ecosystem collapsed and the herders have moved on in life. Modernity has arrived, or?

It is important at this point to remain positive, refrain from searching for a culprit, never accuse the responsible of this blind belief in the benefits of globalization, and complaining about the money for the middlemen and the adverse role of overseas experts. The key for any entrepreneur and social activist is to remain positive and search for opportunities on how to design a better system, to identify ways and means where no one else has ventured and imagine a business model that will ultimately make the herders happy, so happy that his children believe that the future is with the goats and the steppe. This requires three changes in the rules of trade.

**Three Steps that Change the Rules of Trade**

The **first** rule of trade that must change is the price setting for cashmere and the sharing of value added generated through the ultimate sale to the final client should be the same compensation model as a designer: 10% of the sales price. After all, if there is no cashmere, then there is no commission for anyone. This allows the farmer to imagine the size of the herd, the annual production of wool. If the farmer on delivery of the raw wool receives the "market price", he can pocket a commission when the final sale has been concluded. Everyone will be looking for the best quality and value instead of pushing for more volume at ever lower costs.

This offers a freedom to determine roles and responsibilities, crafts and arts, design and cost. Actually, the herder and his family can now decide on their life style. Even if a cashmere sweater were sold direct at half the price, then the herders' revenues would potentially still increase with factor ten. This relieves the pressure on generating an ever higher output. So with half the number of sheep, he would still double income, immediately reversing the advance of the Gobi Desert while ensuring higher quality of life, and a future for their children. Since the greatest portion of debt taken by the farmers is for the education of their children, a brighter future for all is in sight.

Both business models are based on a free market. The globalization model (which is graphically presented on the cover of this article) leads to further desertification and ultimately to the complete demise of the ecosystem as
well as this 5,000 year old cashmere trade. The commission model (pictured at the end of this article) secures the cashmere trade forever, while reducing supply which will translate into higher prices on the market triggering most likely a further drop in production, and an increase in quality of life. This will ultimately strengthen the ecosystem and reverse desertification. It must be stressed that this business model requires in addition to the business model, an appropriate government regulation.

Table 1: Herders' Income according to the business model.

<table>
<thead>
<tr>
<th></th>
<th>Sales Price (long &amp; dense)</th>
<th>Price per kilo (raw)</th>
<th>Herders' Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>world market price</td>
<td>$1,000</td>
<td>$5,-</td>
<td>&lt; $5</td>
</tr>
<tr>
<td>10% commission</td>
<td>$1,000</td>
<td>$60,-</td>
<td>$100</td>
</tr>
<tr>
<td>half price scenario</td>
<td>$500</td>
<td>$60,-</td>
<td>$50</td>
</tr>
</tbody>
</table>

Source: Field work by ZERI Foundation

The second shift in the terms of trade is transformation process of wool to wear. The world's production cashmere is a mere 21,000 tons, that of cotton is just under 100 million tons, and Mongolia produces 9,000 tons or 40%. Why would one ever subject cashmere to the same productivity logic as cotton where everything is subjected to that fast changing fashion? Production of high volumes thrives on outsourcing and this forces a few to specialise. Every intermediate product will be shipped around and incur additional costs and financing which are beyond the means of the herder who now looses most - if not all - share of the value added.

The answer to the preservation of the cashmere culture and tradition is a vertical integration from wool to wear, not a specialization of each single step in the process. While this does not offer the perception of high efficiency, low cost and increasing volumes, it does permit differentiation and artisans' interpretations from selecting the finest hairs and 38 natural shades of color to spinning threats into the desirable length and thicknesses to create unique effects, surprising patterns using the natural colors of the goats "underwear", and finally put a stop to peeling.
The recovery of the land through the reduction of the number of goats. ©2016, TBC

It offers a broad opportunity for craftsmen and women to contribute with their unique skills, and earn a major share of the revenue, which can start to circulate in the local economy spurring growth beyond what is considered viable by traditional market economists. Herders who used to have bank debt to fund their childrens' education now can pay for the schooling of the next generation without incurring debt. Children from herder families can now realistically believe that there is a future, and know there is a demand for their skills, both technical and artistic.

Third, we need to enlighten clients to buy precious clothing not as an object but as a remarkable symbiosis between the need of goats to insulate their body against freezing winds over long winters in a fragile ecology with a protein-based hair, while protecting the body with a water repellent cover in harmony with thousand year old crafts from sheering to designing this marvel from Nature creating a sea of comfort and softness.

It is time to view cashmere as a precious creation any buyer would like to leave for the next generation, as it used to be, not as an object of consumption like the cotton shirt purchased at Zara or H&M. Instead of exploiting low cost cashmere as a magnet to get people into the store, it turns into a conscious decision that includes the awareness of the preservation of culture, tradition and ecosystems through a unique purchase decision. If well done, as imagined in this briefing then we have no more need to plant trees to fight an advancing desert. The steppe will recover its evolutionary path it has enjoyed for millennia even before Genghis Khan ruled between China and Europe.
Graph 2: The Virtuous Business Cycle starting from an inner change.

©2016, Graphics by Bach, Content by Pauli
Epilogue

The ZERI EU - Foundation for a Blue Economy is teaming up with the Tuvd Agency in Berlin; Goyo, a local cashmere production company in Ulan Bator; and, the designer Sybilla Sorondo from Spain to create a special cashmere line that will be sold exclusively at pop-up stores in Tokyo, Madrid and New York. The goat herders will receive 10% of the final sales price paid for by the customer. For more news keep track of @MyBlueEconomy on Twitter and Facebook.
With Special Thanks to Mrs. Boldgerel Tuuvd, who offers everyone a guarantee for follow-up and continuity, to Sybilla Sorondo who has dedicated her life to serving people, especially farmers and women who have supplied her the extraordinary natural ingredients that make life elegant and beautiful; and, to Katherina Bach for her unconditional support from graphics to photography to the details in life that make a difference. And to those who inspire me with the science and the logic and tolerate my sometime outrageous proposals to change the world … now.

For more information
www.zeri.org
www.TheBlueEconomy.org

if you have questions please write to
<info@zeri.org>

Follow us on Twitter @MyBlueEconomy

© 2016, Pauli