

# To Fur or not to Fur: Sustainable Production and Consumption Within Animal-Based Luxury and Fashion Products

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**Abstract** We live in the age of information technology where information travels faster than the speed of light. When a slightly inclined sustainable consumer searches for ethical fashion and luxury brands, they are easily bombarded with advertisements and information. The ongoing trends in adopting sustainable consumer lifestyles, being green and ethical, add to the lustre of modern-day consumers. But despite the awareness, an alarming increase of 70 % in the global sales of the fur industry in the past decade has contradicted the sustainable luxury and fashion movement. Where on the one hand, 100 % fur-free fashion companies like Stella McCartney, Tommy Hilfiger, Calvin Klien and Ralph Lauren are setting an example in the fashion industry. But on the other hand, companies like Gucci, Donna Karan and Karl Lagerfeld have made fur as their forefront in the fashion shows. Interestingly, in the luxury industry the big quest has been about understanding if sustainability and luxury can co-exist and how sustainability can be defined in the realms of luxury? But it is difficult for consumers to adhere to a reference point when it comes to using sustainable animal-based products. In general, the supply chain and fair trade has been an important aspect of eco-fashion products but how does it fit for animal-based products like fur is not well understood. The luxury and fashion industry caters to both sustainable and

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non-sustainable consumptions. In this chapter, we unfold the realities of the fur and faux fur industry. We examine what has led to the come back of fur within the age of sustainable luxury and fashion through interviews from the industry experts and secondary literature. Developing on the industry data and interviews we show the technicalities from production and consumption cycle of the fur industry. We explore the consumer profiles into the consumption of fur and faux fur products. We elucidate how men and women differ within these consumption patterns.

**Keywords** Fur • Faux fur • Eco-fashion • Sustainable luxury and fashion • Animal welfare

## 1 Introduction

Throughout centuries, fur pelts from animals like mink, fox, cats, dogs, bears, racoons, etc., have been worn for their warmth and traded across the world. According to the Russian fur history (Sojuzpushnina 2016), in Russia, fur served as a form of currency, it was used as gifts and as part of a bride's dowry, and became a significant part of trade during the tenth and eleventh centuries. In the 1530s, the beaver became a main trading item between the American Indians and the colonists, and beaver pelts were regularly shipped to Europe. By the late 1500s, fur was extremely popular in Europe (Peterson 2010). In 1608, Samuel de Champlain, a French explorer, created a trading post in Quebec, which became the centre of fur trade in America. In the seventeenth century, Siberia's unification with Russia helped to propel Russia to become the largest fur supplier, which it remained until the nineteenth century. Around that time, fur farming started in North America, and was introduced into Europe in the early twentieth century (Peterson 2010). According to British Fur Trade Association, the global fur trade has rose to 58 % since the 1990s. The global fur trade is estimated to be more than \$40 billion (International Fur Federation 2016). Fur farming is valued at \$7.8 billion and total employment in the sector at over one million (International Fur Federation 2016).

The softness and durability have been improved nowadays with advanced processing and dyeing techniques, which pro-fur argumentators advocate as being sustainable compared with the faux fur. However, formaldehyde, ammonia, hydrogen peroxide and other bleaching agents are used to dye furs which are found to be very dangerous for the environment. Countries like China which is one of the largest producers of fur do not have effective laws against the harsh chemicals used (antifurcoalition.org).

## **2 Fur as a Luxury**

The reason fur is considered a luxury is due to the fact that fur is handcrafted, requiring the skills of trained artisans who understand the qualities of fur and the special techniques that go into creating patterns, blocking and sewing fur. The craftsmanship defines the timelessness and exclusivity of the product which is why fur is designed to last for longer time periods. In the realms of sustainability, does that make fur a sustainable product?

This chapter answers how the animal-based products flourish within the sustainable luxury and fashion industry. To maintain the ethicality of sustainable brands what considerations do companies have? And how consumers are motivated to make purchase decisions for such kind of products? From theoretical standpoints how does status motivate the consumptions? Where is the right balance between production and consumption? We aim to answer and elaborate on these questions and the underpinning aspects of the fur industry.

### ***2.1 Types of Natural Fur***

Following sections describe various types of natural fur.

#### **2.1.1 Wild Fur**

Wild fur is less expensive than farmed fur due to the less control on the damages like scratches caused on the fur from its natural wild environment. Indeed, some consumers prefer to wear wild fur knowing that it comes from natural habitat of animals than animals raised in a cage.

#### **2.1.2 Invasive Fur**

In the coastal areas of the US, nutria a rodent has been declared as an invasive animal (Avnis 2015). Since the 1930s nutrias, originally from South America, have been gobbling up the wetlands of coastal Louisiana, contributing to land loss that approaches 25 square miles per year, along with billions of dollars (Avnis 2015). Since 1990s the Louisiana Department of Wildlife and Fisheries created an incentive programme that they would pay registered hunters and trappers four dollars for each nutria they killed. With a fashion project called Righteous Fur, Cree McCree, a New Orleans based writer and artist is using fur from nutria to better use the dead animal rather than just letting them being thrown into the swamps.

### **2.1.3 Farmed Fur**

Fur farming by some is considered to be a sustainable practice as it involves the fur farmed animals to be fed food wastes from humans. This helps in keeping down the costs of food production and helps in reducing wastage (Fur Institute of Canada). Fur farms make productive use of discarded lands. Raising fur animals suits well for mixed farming since during the winter months the demand for field crops is not so high and needs less attention from the farmer. To insulate cages and make beddings straws from crops are used, while the manure from ranched animals is used for the soil as fertilizer. Fur farmers also use farm wastage as a source of bioenergy to power their own farms. As a renewable natural resource and recycler, farmed fur is considered a sustainable product (Fur Institute of Canada). But fur farming is banned in countries like Austria, Switzerland, United Kingdom, the Netherland, Slovenia, etc.

## **2.2 *Fashion and Fur***

In 2015 at Haute Couture events and fashion weeks the trend in the fur fashion has been with vintage design and retro style silhouettes. Due to the global warming short fur coats in jackets are as well becoming a trend like fur boleros, furry vests and short sleeves cropped jackets. Fashion houses like Stella McCartney, Zara, Hugo Boss and H&M are fur free. Recently, in 2016 Giorgio Armani declared to stop using fur, who was hailed by the anti-fur brigade but criticised by fellow pro-fur fashion designers like Karl Lagerfeld. Fashion houses like Alexander McQueen, Dolce and Gabbana, Karl Lagerfeld, Michael Kors, Fendi, Oscar de la Renta, Prada, Vivienne Westwood and Yves Saint Laurent very openly promote the use of fur through their designs. New designers like the Lithuanian-based designer Josef Statkus who was awarded twice by LVMH for his haute couture designs do not hesitate to use fur. In fact, new designers are supplied fur from the fur federations to be able to use in their future designs.

## **2.3 *Celebrities and Fur***

While in the age of social media some celebrities endorsing fur are proudly welcomed, some are even condemned and backlashed. Like Brazilian celebrity Cristina Cordula famous for her French tv show “les reines du shopping” angered her fans when during an interview she openly said that she is not against the use of fur and the suffering of farmed fur animals is another debate. Her fans were shocked and expressed their anger through social media.

### **3 Methodology**

For our research, we have used qualitative research methodology. Secondary data also includes literature from various research journals and sources of information covering different points of view on trends of the industry like newspaper, journal and magazine articles. This also included several web sources such as blogs, online articles and company web sites. In addition to this collation and parsing of information, we have drawn upon our discussions with various public domains for reference. The expertises of the contributors' long-term experience and existing relationships in the industry have been very useful. Interviews are one of the key methods to collect up-to-date information from the experts in the industry. We interviewed fur industry expert and businessman from Russia giving us insights of prevalent questions for our research, as well as scientific reports from the fur industry have been utilised. As a result, we looked at the production cycle of fur, focusing on natural and faux fur. Taking some examples and depending on their engagement in sustainability, we explored some of the remarkable works being done already. Finally, we analysed the outcome seeking to identify whether sustainability is a challenge or an opportunity for the fur sector.

## **4 Theoretical Approach to Research**

### ***4.1 Derivatives of Sustainable Behaviour***

From a theoretical perspective, in this section we discuss on what leads consumers to consume sustainable products which will help the readers understand it in the context of the fur industry.

#### **4.1.1 Costly Signals**

Costly signalling theory explains that (Miller 2000; Zahavi 1975) both animals and humans often engage in altruistic acts, acts that seem to involve a sacrifice and primarily to convey or communicate a signal about themselves (Gintis et al. 2007). For example, individuals often enact some altruistic behaviour to show they are elevated in status, called competitive altruism.

#### **4.1.2 Need for Status**

Scholars have defined an individual's susceptibility to interpersonal influence as "the need to identify with, or enhance one's image in the opinion of significant others through the acquisition and use of products and brands, and the willingness

to conform to the expectations of others regarding purchase decisions” (Bearden et al. 1989, p. 473). Studies have found that status-seeking consumers are concerned with their peers and use brands to convey status (Ruvio et al. 2008). Griskevicius et al. (2010) discussed how people indulge in sustainable luxury just for the sake of status; a desire for status can spur self-sacrifice and present a powerful tool for motivating prosocial and pro-environmental action.

### 4.1.3 Need for Uniqueness

The theory of consumers’ need for uniqueness explains how an individual’s need for uniqueness can influence brand responses and the need to be different from others (Ryan 2008; Tian et al. 2001) through the pursuit of material goods (Knight and Kim 2007). For example, when haute couture brought back fur as a huge success since 2014 and 2015 at various fashion shows in US and Europe, consumers from China followed these fashion trends, which lead to a high demand of fur. Beyond the trend and status symbol, fur is giving people need for uniqueness and plays an important part of their self-esteem and identity.

### 4.1.4 Anthropocentrism

Values are preceded by culture, society and personality, and have behaviour as its outcome (Rokeach 1973). Anthropocentric people show environmental concern due to the reason that they think human comfort, quality of life and health can be dependent on the preservation of the environment (Gagnon Thompson and Barton 1994). People are notoriously reluctant to change familiar patterns of behaviour, and making a switch to green behaviours often necessitates making sacrifices (e.g., paying more for a less-effective product) (Griskevicius et al. 2010). Young generation with being more educated and informed is avoiding the use of fur as they are becoming more anthropocentric.

## 5 Interviews

For our research on the fur industry we interviewed fur industry expert and businessman Farit Mullayanov from Moscow, Russia. Following are the questions and responses from the interview:

### 1. *Where are the major consumers of fur based? In Which countries?*

The main consumers of the fur garments live in the cold climate conditions. As in the areas, where it is cold, one simply cannot survive in fact without real fur. In the northern areas of Russia, like Arkhangelsk, Murmansk, Khanty-Mansiysk, Koryak, Chukotka, Yakut regions or Siberia, fur clothes are considered to be even

the tradition and are used in the everyday life (not only winter) already for centuries. When it comes to the foreign countries we should think northern regions of Norway, Iceland and Canada where the pieces are used.

2. ***What are the consumer profiles indulging in consumption of fur? Are there any certain age group indulging more?***

Young people mostly buy garments made of sheep fur (mutton) as it is a cheaper option. Older people can afford and buy more luxurious clothes made of mink or sable.

3. ***More consumers of fur are men or women?***

Main consumer group is women. Men use less pieces of fur garments.

4. ***Is sustainable faux fur a threat to real fur?***

Faux fur does not replace the real fur as it does not possess the warming ability of the real fur and does not serve its main purpose.

5. ***What kind of people will switch from real fur to faux fur?***

Those who live in the regions where it is possible to survive without the real fur can replace it with the faux fur. Citizens of the regions from the northern Russia and Siberia are not able to switch to the faux fur because it will not help them with what they use the real fur for.

6. ***Why is there an increasing trend in the fur industry despite the increase in awareness from PETA and other animal rights organisations?***

Currently, there is no trend on any increase in the consumption in the fur industry. Quite the contrary, the industry suffers the low and lowering demand. The prices of the raw materials are constantly decreasing as a result as well.

7. ***In your opinion what will be the future trends in the fur industry?***

In the coming years the fur industry will be declining its production capacity. There are two main reasons for that:

- global warming which is very highly seen in the recent years
- invention and increasing production of the warmth-producing materials (not faux fur) which still perfectly serve the function to provide heat and are a compatible substitute to the real fur.

The data obtained from Mr. Mullayanov takes our research into deeper understanding of the fur industry's consumption patterns. The next sections will help readers understand different facets of production.

## **6 Production Cycle in the Fur and Leather Industry**

### ***6.1 How Fur Is Produced?***

Some of the techniques used by furriers and manufacturers to lighten the garment are shearing, plucking, knitting, leathering and weaving. The most important centres for fur manufacturing include Canada, the Chinese mainland, Greece, Hong Kong and Russia, Germany, Italy, Korea, Japan, Spain, Turkey, Ukraine and the US.

### 6.1.1 Steps in Production of Fur

(1) Killing/Slaughtering of animal

In the EU, Council Directive 98/58 sets down rules covering the welfare of all farmed animals, including fur farmed animals, while Regulation (EC) No. 1099/2009 deals with the slaughter and killing of farmed animals including fur animals (HKTDC 2016). Electrocutation and gas inhalation method are a commonly used method for killing fur animals. Carbon monoxide is recommended usually but sometimes it can be slow to induce effects of unconsciousness in minks. The time taken to induce unconsciousness in minks is 64 s for CO ( $\geq 7\%$ ) and 76 s for 100 % N<sub>2</sub>, as opposed to 19 s for 100 % CO<sub>2</sub> and 26 s for 70 % (Hansen et al. 1991). Other methods include injections of chloral hydrate solution and breaking the neck.

(2) Skinning

After the animal is slaughtered the skinning takes place and pelts are prepared for auction. Skinning can be an automated process. After skinning the pelts are fleshed and placed inside out on a board for stretching and drying which takes about 3–4 days (Bijleveld et al. 2011).

(3) Auction houses

Majority of fur farms are found in Denmark, China, Netherlands, Baltic States and the USA. Commonly, raw skins produced by fur farmers and trappers are sold through modern international auction houses, often located close to producing areas (International Fur Federation 2016). The world's largest fur auction houses are in Copenhagen, Helsinki, St. Petersburg, Seattle and Toronto. Trade fairs like International Fur and Leather Exhibition (MIFUR) in Milan and HKIFFF in Hong Kong have been very successful recently for the splurge in the fur industry. Kopenhagen fur which constitutes 60 % of the global market share (Orange 2014) sold mink skins for up to \$2.4 billion in 2013.

(4) Further processing:

Due to the preservation techniques used, raw pelt is dry and hard. After auctioning the raw fur is converted into leather and renders it useful for garments. To get the desired look the leather may then be dyed with bleaching agents. It is similar to leather production except that the animal hairs are conserved (BASF 2010).

### 6.1.2 Apparel Manufacture

In Europe, important fur apparel manufacturing locations are Kastoria and Siatista and the surrounding area, in Greece (Bijlevel et al. 2011). The steps of apparel manufacture are as follows (Connecticut Furs Inc. 2016):

- selection of the number of furs needed for the desired design;
- slicing the skin into strips and sewing these together to make the designed pattern;
- soaking in water, stretching and drying, to match the form and design of the pattern;
- mounting additional parts, like closures.

### **6.1.3 Faux Fur Production**

Faux fur fibre is produced from petro-chemicals as part of large integrated chemical manufacturing facilities. Europe, Japan and North America account for much of the annual global production (DSS Management Consultants Inc. 2012). Considerable processing is required to convert acrylic fibre into faux fur fabric. Further, the actual production of faux fur fabric often occurs quite distant from where the fibre is produced, example China is a major faux fur fabric producer.

## **7 Environmental Impact of Natural Versus Faux Fur Coat Production**

In this section we discuss various environmental impacts of natural and faux fur and describe the literature associated with the analysis of the environmental impacts.

### **7.1 Life Cycle Assessment**

According to US Environmental Protection Agency (USEPA 2016), Life Cycle Assessment (LCA) is a technique to analyse the environmental impacts of a product's life from material creation to disposal or recycling. The systematic approach of LCA is utilised by various industries and academicians (Williams 2009). LCA aids analysts (Williams 2009) in the following purposes:

- calculate a product's environmental impact,
- identify negative and positive environmental impact of processing or production,
- find opportunities for improvement,
- compare and analyse several processes depending on their environmental impacts,
- quantitatively justify a change in process or product.

There are four main phases of LCA which are defining goals and scope, inventory analysis, impact assessment and interpretation (ISO 14040 2006 and ISO 14044 2006). A large number of LCA literature describe various indicators (Gyetvai 2012); these are

- (1) Selected life cycle impact (LCI) indicators—This is useful to track quantity flows like the use of secondary energy throughout product's life cycle. These are not impact indicators directly but are useful for interpretation phase of a LCA study.
- (2) Midpoint life cycle impact assessment (LCIA) indicators—The midpoint LCIA indicators (or potential indicators) characterise various environmental problems like climate change, ozone depletion, photochemical ozone formation, acidification, eutrophication and resource depletion.
- (3) Endpoint LCIA indicators—Endpoint LCIA indicators refer to actual damage categories like damage to resources, damage to human health and damage to the ecosystem.

**Examples:**

Bijleveld et al. (2011) from CE Delft conducted a report on the environmental impact of mink fur production. According to this report, 11 animals are required to produce 1 kg of fur. In the course of its lifetime, mink eats about 50 kg of feed, resulting in 563 kg of feed required per kg of fur. Although the feed consists mainly of offal and this is accounted for by very low allocation of environmental impacts, the 563 kg required to produce 1 kg of fur knocks on considerably in the total environmental footprint of fur and for 14 of the 18 impact categories studied, feed is the predominant factor. Compared with textiles, fur has a higher impact per kg in 17 of the 18 environmental categories, including climate change, eutrophication and toxic emissions. In many cases, fur has impacts that are a factor 2–28 higher than textiles, even when lower bound values are taken for various links in the production chain.

According to the LCA report by DSS Management Inc. (2012) faux fur coat production has higher environmental demands than a natural fur coat production. As illustrated in Table 1, a comparative analysis on environmental impact by

**Table 1** Life cycle scores and percent differences for individual midpoint indicators (Source DSS Management Consultants Inc. 2012)

Impact category	Natural Fur raw score	Fake Fur raw score	Percent difference (%)
Carcinogens	4.096	7.960	94
Non-carcinogens	3.92	5.200	32
Respiratory inorganics	86.971	84.131	–3
Ionising radiation	0.246	1.159	370
Ozone layer depletion	0.065	0.040	–39

*Note* All scores are reported in ‘millipoints’ units. Millipoints is an abstract unit used to express diverse types of potential impacts. Refer to the Impact 2002+ website for further details. University of Michigan Risk Science Center—Risk and Impact Modeling—Research—Impact 2002+

natural fur coat and fake fur coat shows that a faux fur coat scores significantly better for three indicators, namely, respiratory organics emissions, ozone layer depletion and terrestrial acidification/nitrification. On the other hand, the life cycle of a faux fur coat results in considerably greater consumption of non-renewable energy, greater risk of potential impacts of global warming and greater risk of potential impacts from ionising radiation. As well, there is greater risk of potential impacts from carcinogenic and non-carcinogenic emissions and greater risk of potential terrestrial ecotoxicity impacts with the life cycle of a faux fur coat.

Comparative analysis of environmental impact between natural fur and fake fur.

## ***7.2 Description of Environmental Impacts***

### (a) Ozone layer depletion:

Most atmospheric ozone is found at an altitude of around 15–30 km and this part of the atmosphere is therefore known as the ozone layer. This layer absorbs much of the damaging ultraviolet radiation emitted by the sun. The ozone layer is depleted by a variety of gases like chlorofluorocarbons (CFCs), which results in decline of layer thickness (Bijleveld et al. 2011).

### (b) Ionising radiation:

Ionising radiation results from the decay of radioactive atoms like those of uranium-235, krypton-85 and iodine-129. There are two types of ionising radiation: particle-type radiation (alpha radiation, beta radiation, neutrons, protons) and high-energy electromagnetic radiation (X-rays, gamma radiation). Ionising radiation can damage DNA and cause a variety of cancers (Bijleveld et al. 2011).

### (c) Respiratory inorganics:

Respiratory effects resulting from winter smog caused by emissions of dust, sulphur and nitrogen oxides to air. Damage is expressed in disability-adjusted life years (DALY)/kg emission (Earthshift 2016).

### (d) Carcinogens:

Carcinogenic affects due to emissions of carcinogenic substances to air, water and soil. Damage is expressed in disability-adjusted life years (DALY)/kg emission (Earthshift).

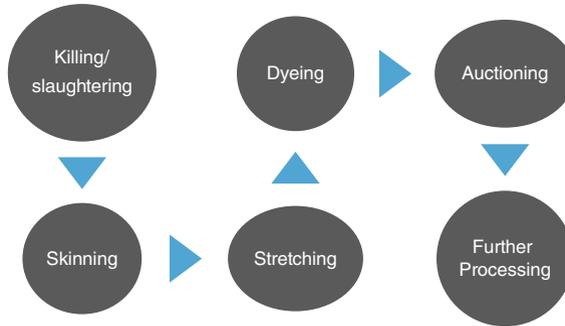


Fig. 1 Steps in natural fur production

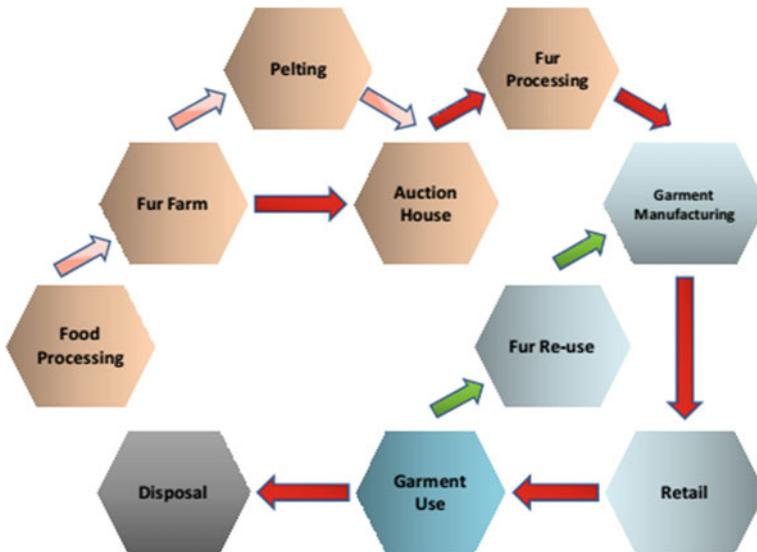


Fig. 2 Production, use and disposal stages of natural fur (DSS Management Consultants Inc. 2012)

Figures 1 and 2 show the flow of inputs and outputs associated with the life cycle of a natural fur and fake fur. For each stage, all of the major inputs and outputs are identified (Fig. 3).

The red arrows indicate the primary flow path among the process stages. The pink shaded arrows indicate operations that may occur as part of an integrated mink farm operation or that may take place off-site. The green shaded arrows indicate the potential for some of the product waste flow to be reused.

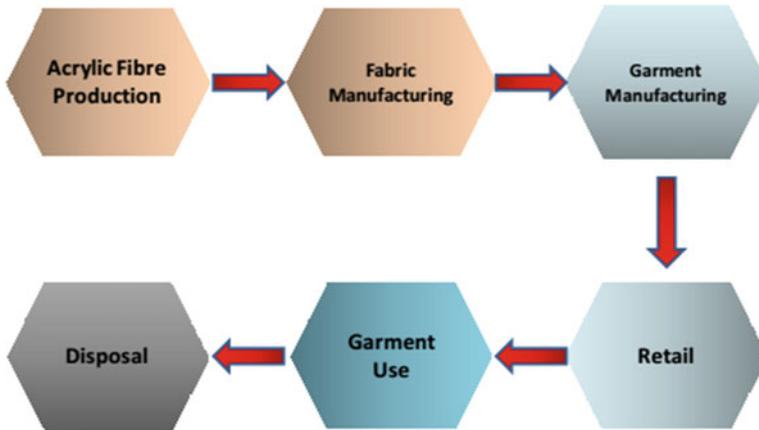


Fig. 3 Production, use and disposal stages of fake fur (DSS Management Consultants Inc. 2012)

## 8 Economic and Financial Considerations

The production of unprocessed fur tends to take place in developed countries, while the processing of fur and production of fur clothing take place in countries with a lower GDP per capita (Hansen 2014). The significant difference in wage costs, increasing globalisation and intense international competition mean that low technological and labour-intensive production moves to countries with low costs, something which is especially true for the fur sector. However, it should be mentioned that fur animal production has become very advanced, and in reality, the production of high-quality fur requires a range of skills.

In the 1990s Russia was the largest producer of fur in the world. But in Russia, the production costs to raise farmed fur animals have risen since the end of the Soviet Union, prior to which fur farmers had ready access to domestic fish and meat processing by-products. As a result of government reforms, the Russian Government no longer subsidises feed or offers easy credit terms. Feed costs, which represent the greatest cost of producing a pelt, rose as the infrastructure of industries which provided domestic fish and meat by-products were destroyed. Russian fur farmers thus incur greater production cost compared with other major farmed fur-producing countries (USITC 2004).

In Asia, Hong Kong and the mainland China are the largest producers and consumers of fur (HKTDC). According to Hong Kong Trade Development Council, under CEPA III (Closer Economic Partnership Arrangement), the mainland China agreed to give all products of Hong Kong origin, including fur items, tariff-free treatment from January 2006. The majority of Hong Kong’s furriers have

set up production facilities on the Chinese mainland amid higher production costs in Hong Kong. Still, many major sub-sectors of the fur industry, particularly sales and distribution, remain in Hong Kong.

## 9 Licenses and Regulations

Different countries have different regulations on fur farming. Fur farming and trapping follow the international agreements such as CITES (Convention on International Trade in Endangered Species), the Convention on Biological Diversity (CBD) and the IUCN (World Conservation Union). Provincial and territorial wildlife biologists establish regional biodiversity plans to ensure healthy wild furbearer populations (Fur Institute of Canada). Also, International Humane Trapping Standards (AIHTS) ensures that the animals trapped follow humane trapping standards.

In European Union laws exist on fur farming and animal welfare. 32.1 million animals are killed each year in EU for fur farming (ESDAW 2016). In EU the most commonly farmed animal species is the mink followed by the blue fox. Following are some of the rules outlined by the European Commission for fur farming:

- (1) Housing conditions for animals caged must be of certain specifications. For example, 70 cm long by 40 cm wide and 45 cm high for minks.
- (2) The quality and the composition of the feed must be controlled. Feed is mainly composed of fish and fish offal, poultry offal, slaughter house offal and cereal with mineral and vitamin ingredients.
- (3) For fox and mink both open and closed buildings are used. Coypus are always housed outdoors and chinchillas indoors.
- (4) Farmers and other persons responsible for the animals should be authorised to keep animals for fur production only if properly trained in all relevant aspects of their biology, welfare, and management.
- (5) Daily inspection of animals must be maintained.
- (6) Animals born in the wild should not be brought into farming conditions.
- (7) Restraint devices should be used as little as possible.
- (8) Killing of animals kept for fur production should be carried out only with humane methods. In particular chloral hydrate should not be used. Animals should be handled gently prior to killing.
- (9) Mutilations of animals kept for fur production, e.g. detoothering, should be avoided

In USA and Canada, the Washington Convention (Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)) restricts or prohibits the trade of certain species. Licenses must be obtained by fur farmers from their local and territorial government authorities for the protection of wildlife and environment.

## 10 Animal Welfare in Sustainability

What do we mean by animal welfare?

Animal welfare is the prevention of unnecessary animal suffering, i.e. ensuring a good quality of life and humane death (worldanimal.net). It comprises basically two elements: physical state and mental state.

- (a) Physical state is the physical condition in which the animal lives and is coping with. For example, altered body functions due to lack of space and adaptability depending on the animal species can cause damage to their physical state (Dawkins 1980, 1990).
- (b) Mental state is being explored more nowadays. Focussing on the stress levels and feelings that animals go through. As stated by Duncan (1991), the extent to which animals are aware of their internal state while performing behaviour known to be indicative of so-called states of suffering, such as fear, frustration and pain, which determine how much they are actually suffering.

### *10.1 Sustainable Animal-Based Products Versus Non-sustainable Animal-Based Products*

It is important to note that the consumer consciousness has been increasing for the environmental conservation and animal rights. Consumers want to be sure of the ethicality within the fashion industry. For this, the fur industry started a voluntary labelling programme in 2007 called Origin Assured Label or OA™, which informs the consumers about the origins of products and regulation and standards governed during fur production (HKTDC). Furthermore, enhancement of the regulations on environmental conservation and animal protection is promoted. The biodegradable and less-pollutive fur during the production process is increasingly considered a sustainable material.

In the meantime, recycling fur has started to grab the attention of producers and consumers. HARRICANA PAR MARIOUCHE, a Canadian fur brand, for instance, has been saving more than 800,000 animals over the past 15 years by recycling old furs. In Canada, the Beautifully Canadian™ label is a guarantee that the garment is made from Canadian fur (Fur Institute of Canada 2016).

Another aspect of natural fur consumption is the use of by-products from the animal like in oils and fertilizers. For example, mink oil is used in medical and cosmetics industry. It is obtained by rendering of the mink fat which has been removed from the pelts destined for the fur industry (Wikipedia 2016).

## 10.2 *WelFur*

According to the Copenhagen fur (2016), animal welfare assessment programmes like WelFur were initiated by the European fur sector in 2009. The pan-European implementation of WelFur began in 2015 with 10 European countries participating in the pilot scale. Overall, the WelFur system has three objectives:

1. To provide a reliable on-farm animal welfare assessment system based on scientifically proven measures and independent third-party assessments.
2. To improve animal welfare on European fur farms through analysing of the assessment data and education of the farmers.
3. To provide consumer transparency on the welfare status on European fur farms by publishing assessment data.

The welfare assessment protocols for fur farmed species (mink and fox) are developed by independent scientists at seven European universities (University of Eastern Finland (Department of Biosciences), MTT Agrifood Research, Finland (Animal Production Research), Aarhus University, Denmark (Department of Animal Health and Bioscience), Norwegian University of Life Sciences (Department of Animal and Agricultural Sciences), Swedish University of Agricultural Sciences (Department of Animal Environment and Health), University of Utrecht, the Netherlands (Department of Animals in Science and Society), French National Institute of Agronomic Research) and were published in 2013 and 2014. These protocols work as science-based ‘manuals’ for the third parties assessing the individual fur farm. Based on the principles of the European Commission funded Welfare Quality<sup>®</sup> project, the programme takes on a multi-faceted approach to animal welfare considering the parameters like positive and negative emotions, health, natural behaviour, housing system, feeding, human–animal relationship and the management of the farm.

## 11 Is There an Ethical Way of Consuming Animal-Based Luxury and Fashion Products?

In 1994, when PETA campaigned with five supermodels who sat naked on the floor and told the world “We’d rather go naked than wear fur”, it reached millions of people and created successful awareness against the use of fur. However, some of the models from the campaign like Cindy Crawford, Naomi Campbell and Christy Turlington have been in recent years found to have posed and promoted fur garments.

According to Beard (2008), in 1980s consumerism became increasingly politicised in Britain, which was demonstrated through campaigns to prevent testing of cosmetic products on animals. While Body Shop was one of the firms most widely associated with the Against Animal Testing campaign, it was perhaps the

appropriation of glamorous fashion photography in advertising by the pressure group Lynx that captured the public's attention in its quest to ban the use of fur.

As Andrew Bolton (2004) attests, "Acting as a form of "guilt politics," it urged women to reject fur in order to exhibit a morally as opposed to a materially superior status, thus giving birth to a new ideal of femininity, the moral or ethical woman".

Although Lynx failed to prevent the long-term continuation of using fur, as evidenced by its recent return to high fashion by designers such as Julien Macdonald, they succeeded in making the wearing of fur socially unacceptable to a wider audience, giving rise to the idea that being ethical could also be fashionable (Beard 2008). Eco-fashion therefore has emerged as another way for fashion brands to stand out in a highly overcrowded market.

In 2010, Ipsos Public Affairs, the global market research company, undertook a consumer survey about the image of fur farming in Germany, Belgium and the Netherlands. 1000 respondents from each country participated in the survey. According to this survey most participants had negative image about the fur industry as that of being cruel and that fake fur has less ecological impact (European Fur Information Centre 2016). This shows the declining demand of natural fur but not faux fur.

Within the sustainability paradigm pro-fur spokespersons have proclaimed there is not any difference between leather and fur as both the types of animal products utilise entire animal and not just the skin. However, the likeability of animal-based products in general is declining. The acceptance of leather by some and not fur is the key to understand ethical selective considerations made by consumers.

## 12 Discussion

### *12.1 The Debacle of Faux Fur as Sustainable*

Sustainability is a long-term process considering the financial social, economic and other requirements of present and future generations. According to EPA (United States Environmental Protection Agency), sustainability is important in making sure that we have and will continue to have the water, materials and resources to protect human health and our environment. Many industry experts in the field of fashion and luxury proclaim their brands as sustainable due to the use of faux fur in their products. But is faux fur really sustainable?

Despite the fact that faux fur is saving animals from being slaughtered, it is not completely sustainable. The primary reason being that faux fur is derived from petroleum products which are non-renewable and non-biodegradable. Unlike the natural fur the faux fur does not last as long and is not durable. The other stance being that of fast fashion where faux fur fashion might come and go with new designs and patterns.

## 12.2 *Where the Future Lies?*

We outline some of the future forecast based on our research and current findings of the fur industry.

1. Brands will adopt fur and faux fur fashion to cater the different types of consumers. For example, luxury and fashion brand like Prada serves both the consumers against and pro fur by launching products with natural and faux fur in the market. Increasing demand of fur thus is prevalent and market driven.
2. Anti-fur campaigns from organisations and animal rights groups like PETA, anti-fur coalition, make fur history, born-free USA, etc., are becoming increasingly popular through the internet and the social media, which is helpful in spreading information about the sufferings and unethical practices of the fur industry. In addition, it makes consumers feel involved in contributing to sustainable practices.
3. As it is getting common on social media for celebrity fans to make a mountain of a mole, celebrities could enhance or damage their reputation based on their opinions on the use of fur.
4. Status will continue to drive the demand of fur, even in countries like China, India and Brazil where winter months are few.
5. Adapting to sustainable lifestyle will be more prevalent amongst the educated consumers, which does not necessarily mean abstinence from faux fur.
6. Consumer mainly wear fur in colder regions due to extreme cold temperatures. Therefore, it is an economic investment for certain consumer groups to buy natural fur.

Sales in the fur industry are driven by two kinds of consumers: the old consumers and the young ones under 40 yrs (Bukszpan 2015). The prime reason is being that of rewarding oneself with luxury and adhering to the latest fashion. Anti-fur campaigns like from PETA have hurt the sales of the fur industry during the 1990s and still continue. However, the haute couture fashion and celebrity endorsements have contributed to the recent increase. The challenges that lie ahead for the fur industry are

- Global warming and the ecological and environmental impact from the use of natural and faux fur.
- Increased competitiveness through production in developing countries like China.
- Increased regulations and strictness on the fur farming conditions in developed countries.

On the grounds of ethicality and morality, killing of animals for their skin be it leather or fur cannot be considered a sustainable practice. Nevertheless, one cannot be sustainable if the act involves killing a living being. Even though the regulations of killing fur animals humanely have been formed, it does not prove that killing in itself is humane.

A clear standpoint on whether natural fur or faux fur is superior is inevitable due to different subjective views on ethicality and sustainability. As famously quoted by Karl Lagerfeld—“In a meat-eating world, wearing leather for shoes and clothes and even handbags, the discussion of fur is childish”. With many fashionistas and designers aspiring to be the Karl Lagerfeld of tomorrow, the use of fur in the luxury and fashion industry is to stay but differ from market to market.

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