Business Sciences Review
ISSN : 1112-3818 /EISSN : 2602-5396

Special Issue: June 2021
Pages:242-259

THE GREENWASHING : WHEN THE GREEN ARGUMENT IS NOTHING BUT A DISGUISE CASE STUDY : GREENWASHING OF DAIRY PRODUCTS IN ASIAN AND AFRICAN COUNTRIES

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Date of reception :	*Date of acceptance :*	*Date of publication :*
16-07-2020	*27-12-2020*	*07-06-2021*

Abstract

Greenwashing is the founded solution to human and ecologic damages caused by the irrationnal consumption trend adopted all over the world those last few years. Each product or service business are promising us a healthier and ecological engaged way of consumption when buying their products and that they all are green and concerned in environnement protection. But what is it really hidden behind all those promises ?

When selling dairy products, the marketing campaigns launched in Asian and African countries have succeeded in associating the consumption of those product to solid bones and good health. However, many recent researches proved that its effects on humain health aren't that good. Moreover, a huge part of those researches showed negative impact of cattle breeds on climate and environnement as well.

This following article reports, in a concise way, those reseaches results making us see dairy products without their green disguise. Thus, some recommandations are announced in order to turn their consumption in a less toxic way for both human health and environnement.

Keywords : Greenwashing, sustainable development, dairy products, biological agriculture, consumption trend.

1- INTRODUCTION

Nowadays, sustainable development has become a major social concern and a brand new way of consumption. That led to a new

paradigm of marketing born in the last 90's. Thanks to environnemental engaged slogans and messages, broadcast from businesses to their public, people are no more feeling theirself falling in the consumerism trap. On the contrary, when buying greenwashed products they're more and more convinced they're taking care of themself and the planet in a raw. They're truly certain they're accomplishing a GREEN act.

Consuming less and better is the quote of that new ecologic approach in publicity. Furthermore, ecoresponsible labels, biological agriculture and fair trade are the keywords for marketing in the current century. From now on, those new arguments are overused by campanies signifiying they're interested in sustainable developement and involved protecting the planet and its resources.

This new type of communication is called Green marketing. Yet, unfortunately and often, the messages delivered are nothing but eco-laundring, called more commonly GREENWASHING.

Indeed, the fact is that, after 30 years of social engagement, we can see no improvment neither in the human health nor in the economic situation in poor countries. It's even worst when talking about climate and environnement. So how can we explain those observations when, according to their advertising campaigns, more than the two thirds of the biggest businesses and distributors are certified ecoresponsible ?

To illustrate the case and in order to be more precise in our analyse, we have chosen the dairy products field in industry and commerce. Thanks to greenwashing, those products are simply seen as the solution to many diseases in some african and asian cultures. They're also known to be the natural outcome of cattle farms that are working the soil, nourishing animals and thus protecting nature. In fact, none of these perceptions is totally correct. There are many downsides unknown from common consumers and hidden by farmers, industrials and traders in the only purpose to serve their own profits. That is what we are willing to argument in the followin article.

2- WHAT IS GREENWASHING

To confirm its engagement in the sustainable development, companies must change their intern culture in depth. Not only, it has to

understand what this engagement means and learn to adopt it in all its features (Laville, 2009). When all the necessary changes are made, it's very frequent we hear about green advert (Cox, 2008).

Green adverts are the basic adverts to which campanies add an eco-responsibility promise or a biological process or input (LIBEART, 2010). But when those arguments are misused or anounced awkwardly, we are in front of, what is commonly called nowadays, greenwashing.

In other words, greenwashing refers to advertising including one or more from those criteria :

1- Rules, explicitly or implicitly, a relation between the companies output and its biophysical environnement.
2- Tries to promote a green lifestyle with or without highlighting the product.
3- Shows a corporate ecoresponsible image (LAVILLE, DEVEAUX, 2007).

All this with putting on markets products/services disrespectful of the environment, of the human health and of the poorest countries economies. in facts, green advertising not associated to reimagined global strategy with environmental concerns and to a real measure of its communication impact on environment is what we call greenwashing (KARNA, JUSLIN, HANSEN, 2003).

This concept appeared in the first 90's and had been employed for the first time by environmental lobby groups (CATELLANI, 2009) that denounced adverts where the companies put the light on their progress in environment protection and don't make any eco-responsible action (LYON MAXWELL, 2011), aiming to build a positive brand image and to touch the huge segment of consumers concerned in their ecological impact.

The name « greenwashing » is the contraction of two english word « green » and « brainwashing ». It can be identified as the « use, by a business, of false or incomplete information to build a positive environmental responsible public image » (FURLOW, 2009).

Otherwise, some studies (CHAUVEAU, 2006) sorted three types of deviations and breaches :

1. Very general ecological and environmental promises that aren't supported and detailed in the advert message.

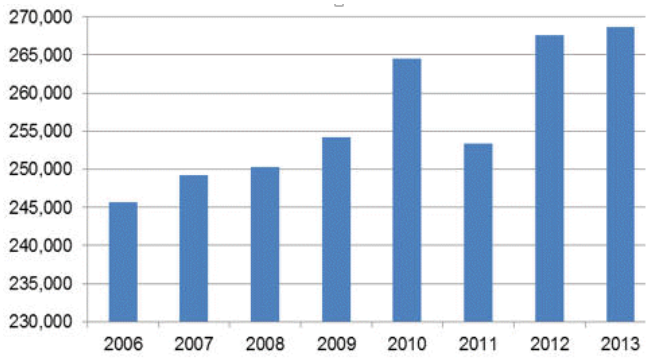
2. Environmental harmlessness suggestions too much excessive comparing to reality of the product promoted.
3. Abusive and ambiguous reconciliation between non sustainable products and ideas of sustainability (MUGNIER, RENAUDIN, 2008).

3- THE WORLD DAIRY ECONOMY DYNAMIC IN THE LAST FIFTEEN YEARS

Even if milk production and consumption are variaGble across the world, historically only a minority of human groups valued milk as an important component of the daily diet. That said, by the late 20th and early 21st century, milk consumption has become globally normative, and a spectacular rise in consumption has been noticed in countries such as China, India and Algeria. The explanation is that milk has been positioned as a food with intrinsic qualities that enhance physical growth while remaining affordable even to low economic classes (WILEY, 2011).

Simultaneously, The world dairy cows herd has constantly increased during the few past years. However, this increase is still insufficient considering the increase rythm of the world demand. The livestock size has passed from 245.6 million dairy cows in 2006 to 268.7 million in 2013, that's to say, an annual growth rate of 1.3%/year (INSEE, 2015).

Figure n°1 : World dairy cows herd evolution from 2006 to 2013 (thousand heads)



Source : MAKHLOUF (M) et MONTAIGNE (E) : « La dynamique du marché mondial des produits laitiers », Livestock research for rural development review. N°26, 2016.

That said, the evolution rate is only positive in some areas in the world such as asia, africa and south america. One reason is the will of certain countries (china, india, algeria, marocco) in satisfying the local need in animal protein. In 2015, Africa and Asia monopolize 61% of the world livestock while against 15% in Europe and 14% in South America (FAOSTAT, 2015).

However, the trend is reversed when talking about milk yield. The average yield of a milk cow in the USA is about 9900 l/cow/year and around 6627 l in UE thanks to intensive breeding method. On the contrary, production doesn't exceed the 2500 l/cow/year in china and is at its lowest score in Africa with only 520 l/cow/year. Most of livestocks in those areas are extensive breeds.

Milk availability ***per capita***, in the world is also constantly increasing, during the past thirty years, rising from 106 kg/capita, in 1970, to 110 kg/capita, in 2013.

Board n°1 : Milk availability per capita from 1970 to 2013

	1970	**1980**	**1990**	**2000**	**2010**	**2011**	**2012**	**2013**
World population (10^9 inhab.)	3,7	4,4	5,3	6,1	6,9	7,0	7,1	7,24
Milk production (10^6 tonnes)	392	466	542	579	735	755	772	782
Related consumption (kg/inhab.)	106	105	103	95	106,5	107,8	109,4	109,6

Source : FAOSTAT, 2015

At a planetary scale, this availability hides huge ranges between continents. The following board shows milk consumption in different continents in 2010.

Board n°2 : Milk consumption in the world in 2010 (kg/inhab/year)

Continent	**Consumption**
Africa	36
Asia	62
South america	157
North america	277
Europe	294
Oceania	700

Source : HENNING (B) : « Stasing in Livestock's long shadow : the ethics of eating meat on a small planet », Ethics and the environment, vol.16, n°2, Indiana university Press, USA, 2011. Pp. 75-84.

Almost 70% of the dairy products consumed in the world are fresh. The rest is dehydrated and used in different industrial processes (OCDE/FAO, 2017).

Between all the continents, Asia is still being the engine of the world's milk production growth. During the past twenty years, its production has literally doubled from 142 million tonnes in 2001 to 280 million tonnes in 2012. Despite this evolution, local production doesn't cover the local need in dairy products lacking about 22 million tonnes, in 2011. Asia absorbe 55% of the world's import, followed by Africa with 15% of the worlds market (OCDE, 2017). There are about 85% of the imports coming from new zealanda. In 2013, these imports represented 20% of the total volume of the world exchanges.

In Africa, the output progresses as fast as in Asia with a rate of 4%/year. Withal, this output estimated at 42 million tonnes doesn't exceed the 5% of the world global production and is still insufficient to cover the local need (OCDE, 2017). An availability of 36 kg/inhab/year is the lowest in the entire world (OCDE, 2017). This continent highly depends on imports, assessed to 10 million tonnes/year. Thoses imports cover the quarter of the continent consumption (OCDE/FAO, 2017).

According to projections, the rise of world dairy output should stay at a rate of 1.9%/year, for the coming ten years. However, it would turn around 3%/year in the developing countries. The additional offer can be attributed to enlargment of the local dairy cow livestocks by imports of milk purebred cows as part of multiple agriculture development programs in those countries (IFAP, 2012).

4- MARKETING CAMPAIGNS FOR DAIRY PRODUCTS IN ASIAN AND AFRICAN COUNTRIES

For this particular case study, we have chosen to analyse the marketing campaigns of dairy products in Asia and Africa. The main reason is that, in those two continents, there are the biggest importers of milk countries. For us, this leads to study the case of countries where dairy products are much lacking and are imported instead of being replaced by available and as nourishing as fluid milk food.

We are, here, gonna discribe four campaigns for green dairy products in China, India, Algeria and the middle West African group. Right after we are willing to demonstrate how milk and dairy goods, in all of those campaigns, are being greenwashed and how many damages are being caused because of their high consumption in those countries.

4-1. YILI campaign for dairy products in China

Chinese dairy consumption went from 23 grammes/day/*capita* in 2000 to 85 grammes in 2010 (LEMOINE, 2014). This is explained by the an alimentary diversification inspired by Western consumption made possible by the GDP enhance (+221% between 2000 and 2013) (MAYO, 2014). As Chinese consumer's income rise, they are seeking out for high quality dairy products. That's what justifies the new orientation of the local producers in their marketing campaigns such as the local company YiLi, which accounts for 37% of the market share in milk (WILEY, 2011). YiLi group is ranked amond the world's most successful dairy companies and has been consecutively ranked n°1 in the Asian dairy industry in the past several years. It is the largest dairy company in China. During the course of its development (Yili.com, 2020), YiLi has always adhered to « internationalization » and « innovation », insisting on the fundamentals of « quality » and « responsability » (Yili.com, 2020). it has won the trust of consumers with the high-quality, high-tech and high value-added diversified products. For their communication campaigns, the YiLi group highlights its corporate social responsibility management system that turned its « healthy China social responsibility system » into a future-oriented « world integrally sharing health corporate sustainable development system », reflecting YiLi's wish for a beautiful life for all of its consumers. Among its social responsible actions is :

- The YiLi Ark : a project dedicated to the training on child development safety.
- The YiLi Milk Cow School : this school is established to impart trainings for dairy farmers to cultivate cow breeding skills and to develop modern pastures.
- The YiLi Milk Cow School Platform : YiLi developed online courses covering the production of silage, health management, milk quality, heatstroke prevention and warm-

keeping and provided training to more than 10 000 suppliers (yili.com, 2020).

The efficiency of the YiLi adverts campaign comes from a large use of traditional and social media. YiLi campaign is mainly based on sponsoring actions. Indeed, the brand was the official sponsor of Beijing in the olympics games of 2008 and one of the partners of the chinese olympic comittee. It supplied the olympic delegations with its products during the winter olympic games of 2006.

YiLi adverts were all based on emotional stories of old or sick people who have accomplished their dreams or tried sport challenges and won. The goal was to create a link between emotions like hope and love to healthy dairy products.

4-2. The white revolution by NDDB in India :

White revolution was one of the biggest dairy development movements in the world. It has been launched by the indian government, especially the India's National Dairy Development Board, to develop and help the dairy industry sustain itself economically by developing cooperatives (PATEL, 2018). The white revolution helped increase milk productivity from 55.6 million tonnes in 1995 to 88.1 million tonnes in 2004 and then 187.7 million tonnes in 2018 (PATEL, 2018). This program has also helped turn milk prices more competitive in a way to enhance the demand for dairy products. This program increased the demand for production of healthy animals, use of modern technology in milk production sector and networking between various small and large scale dairy industries. The white revolution transformed India from a milk deficient nation into the world's largest milk producers.

The programme created national milk grid linking producers throughout India with consumers in over 700 towns and cities, reducing seasonal and regional price variations and ensuring that the milk producers get a major share of the income generated from end consumers, by forming cooperatives (PATEL, 2018).

The white revolution followed three steps :

Step one : this phase started in July 1970 with the objective of setting up dairy cooperatives in 18 milk sheds in 10 states. They were to be linked with the four best metropolitan markets. By the end of this

phase in 1981, there were 13000 village dairy cooperatvies covering 15000 farmers.

Step two : it aimed at building on the designs of phase one and on the assisted dairy development programmes in Karnataka, Rajasthan and Madhya Pradesh. Bu the end of this phase in 1985, there were 136 milk sheds, 34500 village dairy cooperatives.

Step three : this step emphasised on consolidating the gains of the earlier two phases by improving the productivity and efficiency of the dairy sectors for long term sustainability. It ended in 1996 and by the time there were 73300 dairy cooperatives and overs 9.4 million fermer members (PATEL, 2018).

Thanks to this cooperative system, India started exporting milk powder to many foreign nations, dairy industries and infrastrcutures modernised and expanded, dairy needs are met locally and the genetic improvement of milking animals has increased due to cross breeding. Today, the availability per capita is around 310 grammes/day.

In terms of marketing, the white revolution was based on personal adverts communicated by each cooperative. One in particular led to a huge buzz, its weekly ads were real events that every consumer impatiently waited. It is the AMUL cooperative marketing campaign that used to harness the politic news of the week and turn them funny and directly linked to milk consumtion.

4-3. The public health campaign for milk in Algeria

Algerian consumer worships milk and its derivatives. The origin of this phenomenon takes roots after the liberation war. At that time, the local population who survived battles, hunger and diseases, was suffering from an important deficit of protein. It was a national healthcare problematic to supply the country in sufficient quantities of protein-rich food was it from an animal or a vegetal source (SOUKEHAL, 2013).

Regarding to animal protein and considering the economic recession and the low sheep and cattle production at that time, the first and easiest solution that the government found was to import milk powder from external markets. Sufficiently rich in protein and iron, milk became rapidly a main meal in the algerian diet. It constituted with wheat 80% of the daily feed by the 70’s (SOUKEHAL, 2013).

Note that those two commodities, bought both on external markets, were paid at prices that would be inaffordable for most of the algerian families whose wages were either low or inexistant. That's why the government engaged himself in a sequence of quadrennial and quinquennial socio-economic programs willing to guarantee the survival of the poorest thanks to subsidies and social help (SOUKEHAL, 2013).

Socialist politics helped saving algerian people in the very bad times but, unfortunately, hasn't encouraged building solid and profitable economic fields. Many years after its independence, protein deficit was still being a current problematic and subsidies were still maintained in Algeria. nowadays, the algerian consumer is highly used to buy milk and wheat (bread and pasta form) at very low prices on the local markets and even if the GDP has enhanced, in the last ten years, those two commodities are still constituting the main part of the daily feed (MAKHLOUF, 2016).

Many social analysts are sure that cancelling subsidies would lead to riots from a people who now considers the public help as its absolute right. The situation is even worse when we consider how fast the population is increasing. To handle the lack of milk, the government is importing more and more milk powder besides helping investments in milk cattle farms and importing pure dairy breed cows.

In numbers, the annual algerian milk demand was about 3.5 billion liters in 2015 and only 1 billion liter was produced locally. From the local production, only 15% transits in the formal marketing circuit. The size of the dairy cattle herd increased from 400 000 units in 1969 to 900 000 units in 2010 (MAKHLOUF, 2016).

Milk and its derivatives consumption is now deeply rooted in the algerian lifestyle and traditions. All social classes are buying milk at a subsidized price. Thus, the public helping politics is not considering revenu or purchasing power when pricing milk in the local market that's why subsidies are more profitable to rich people and are costing a lot to government.

4-4. The « mon lait est local » campaign in the WASEC

Many agricultural families from West Africa are living on the dairy field. On local markets, their products are facing unfair competition

from european dairy imports. They're also facing hard climate and politics conditions. Therefore, the West Africa States Economic Community (WASEC), gathering states of Burkina Faso, Mali, Senegal, Niger, Mauritania, and Tchad, has engaged herself in a public campaign aiming to raise awareness in the local consumer so as he supports local producers. Thus by informing on the local basic and re-fattening milk powder (monlaitestlocal.africa, 2020).

This campaign has also intends to negotiate cooperation formula with foreign exporters in the WASEC in a way to make them collaborate positivly in protecting the local product.

The campaign « mon lait est local » meaning « My milk is local » has been launched in 2018, it has federated a broad coalition of more than 15 farmers and breeders provential organisations, a dairy producers european organisation (the European Milk Board) and 6 international non governemental organisations (monlaitestlocal.africa, 2020).

This campaign uses a wide communication network including both traditional and digital mass media. After two years of hard work and mobilisation, local consumers are more aware of the issue and actively support the local produced milk powder. An on-line petition asking the WASEC's parliament to change its actual politics has already gathered 20000 signature. Moreover, there have been many supporting cultural events such as women entreneurship and innovation competition, cooking competitions, fairs for tasting the local product…etc). Up until now, a common declaration has been signed by more than thirty european organisations exporting their milk in the WASEC's intern market areas (monlaitestlocal.africa, 2020).

5- EFFECTS OF CATTLE BREEDS ON CLIMATE AND NATURAL RESSOURCES

Refering to their definition, green products are all natural, nontoxic and produced sustainably, meaning with renewable or recyclable materials and energies. Their production and use have a minimum negative effects on the environment and promote conservation of energy and natural resources (MANSVELT, 2011). In the following section we are about to check in which proportions current dairy production and cattle breeding match with the definition.

The FAO report of 2006, named Livestock's long shadow assures that breeding is one of the main causes of the current environnemental

issues. In this report, new land uses and fodder production were taken into account to evaluate the impact of dairy farming on environment. Besides, this report observes that growth of population and incomes and evolution of food preferencies all over the world had stimulated fast growth of demand in meat, milk and eggs. On the other side, globalization is strongly helping inputs and outputs exchanges.

Today, 80% of dairy breeds evolution is taking the form of intensive and industrial farms (STEINFELD, 2006). Reality is that current levels of production can't be sustained without compromising the environment, health, animal welfare and economic justice (MANSVELT, 2011).

« Livestock's long shadow » has ranked these environnemental effects in three big categories :

5-1. Global warming and greenhouse gas emission

Using an applied methodology, the FAO established that breeds contributes at a height of 18% in global greenhouse gas emission which is higher than transports impact (STEINFELD, 2006).

Indeed, intensive and industrial cattle breeding farms and agribusiness dairies employ advanced technologies (animal genetics, food microbiology, biophysics, abs biochemistry) and gigantic housing and production facilities stocked with specialized equipment (milking machines, piping, sprinklers, and sprayers) that are manufactured by other industries that also produce waste (MATTHEWS, 2006).

Moreover, pasture is at the origin of 9% of anthropogenic emission of carbon dioxide. it also induces emission of other gases with greenhouse effect. It contributes at height of 37% of anthropogenic methan coming from enteric fermentation of reminants and 65% of nitrogen dioxide deriving from manure (METTHEWS, 2006).

Otherwise, intensive breeding farms produce high levels of nitrogen, phosphorus and concetrated spills of toxic materials. Yet, thoses husbandries are located in areas where waste's managing is very hard. Actually, the regional distribution of intensive farms are generally determined following the accessibility to input markets and cost of land and workforce not ecologic consideration. The FAO reports said « *environmental issues created by industrial breeding systems are not due to their big scale or their intensive production, they are the product*

of their position and their geographic concentration » (STEINFELD, 2006).

Furthermore, transporting milk long distances requires refrigeration and fuel. Milk used to be packaged in reusable galss containers, but it is now typically sold in plastic, most of which becomes solid waste, although much of it is recyclable.

5-2. Deforestation and land degradation

Breeding field is the biggest anthropic user of land. Pasture takes 26% the submerged surface of the earth when fodder production and requires almost third of the whole plowland. Expansion of livestock routes is a key factor in deforestation, 70% of pasture in the arid areas are considered degraded mostly because of overgrazing, soil compaction and erosion, all due to breeding activities (GLATZEL, 2014).

5-3. Water pollution

Milk is mostly water. For every unit of milk produced, a dairy cow most consume an equivalent unit of water. Commercial dairy operations convert millions of liters of water into milk. They use thousands of liters of waters daily to keep their herds and megafacilities clean enough to pass inspections. This water becomes waste that contaminates surrounding aquifers. Production of methane gas is also problematic (MANSVELT, 2011).

Animal production has strong fallouts on water availability. It consumes more than 8% of human consumption worldwide, mose of it dedicated to fodder crop irrigation (STEINFELD, 2006). It is attested that breeding is the biggest source of water pollutant through manure, antibiotics, hormones, chemicals for tannery, fertilizers and pesticides used for fodder crop and sediments of eroded pastures.

Even if there are no world figures, it is estimated, in the U.S.A, that fodder agriculture and breeding are responsible of 37% of pesticide consumption, 50% of antibiotic consumption and third of nitrogen and phosphore load in pure water ressources. This sector generates almost the two thirds of anthropogenic ammonia that largely contributes in acid rain and acidification of ecosystems.

5-4. Loss of biodiversity

The quantity of animals breeded for human consumption represents a danger for earth biodiversity. Husbandries animals constitute 20% of total earthly animal biomass and the surface they’re

occupying today was in the past a wildlife habitat. In 306 of the 825 earthly ecoareas identified by the World Wildlife Fund (WWF), farm animals are seen as a threat while 23 of the 35 world hotspot of biodiversity are knowing a hard loss of habitat because of industrial farming expansion (HENNING, 2011).

6- EFFECTS OF DAIRY PRODUCTS CONSUMPTION ON HUMAN HEALTH

It has been scientifically proved that dairy products are not necessary for a balanced daily diet. In fact, they're not the only source of calcium in our food. There are also protein and vitamin-rich aliments as much as milk and its derivatives are (FAO,2017). The one best proof is the asian population which consumes little or none of dairy production and still keep a very good people health. Moreover, it seems that asian people are less suffering from osteoporosis than the rest of the world which is paradoxical when we see how milk is marketed as a bone solidifier product. Nowadays, many medical researches state that dairy consumption is not helping avoid osteoporosis in the old years (WHO, 2020).

Many people are still beleiving that milk is the most important source of calcium. Yet, it isn't true. A lot of aliments are richer than milk in calcium content such as mineral water and some vegetables such as cabbage and broccoli. We find also an important content of calcium in anchovies and sardines.

Besides, when we talk about calcium, it's essential to take absorption rate in consideration. Thus, milk's calcium shows bad grades comparing to other food. Indeed, human organism absorbes 61% of vegetable's calcium and only 32% of milk's calcium (WHO, 2020).

Consequently, milk is far from being the best calcium source. Added to that, it could represent a health threat and here is the explanation. When thousands of bovines are housed together in combined animal feedlot operation with little access to open space, and consume grain unstead of grass, their health is compromised (MANSVELT, 2011). Dairy products can threaten human health in a number of ways. Injecting dairy cows with recombinant bovine growth hormone (rBGH) boosts

milk production, but there is evidence that rGBH also causes mastisis, breast cancer, and other diseases in humans (MANSVELT, 2011). Overconsumption of dairy products can exacerbate ashtma and respiratory problems. Dairy food chains can become infected with highly poisonous dioxins (WHO,2020).

7- RECOMMENDATIONS

From the ascertainments presented below and refering to the FAO report, we can afford to recommend some actions willing to lessen milk cow breeding effects on environment and human health. Since natural resources are not infinite, milk herd expansion, necessary to supply the world's milk demand, has to be managed in a way to keep the plant and its inhabibtants all safe for today and the centuries coming (KINGSTON, EDWARDS, 2009).

7-1. Help consumers be more aware about what they consume

In African and Asian countries, food is marked by traditions. People are used to consume what their fathers consumed before them and don't really care how much it is good or not for their health or for their local economy. It's high time for governments to engaged agressive information campaigns and help people know which food is better for them, how their daily needs could be satisfied in an optimal way, and how they could actively help building solid and profitable local economy fields (KINGSTON, EDWARDS, 2009).

7-2. Privilege extensive breeding systems to intensive ones

In extensive breeding, cow browse very long distances to come accross its daily need. Sometimes, this way of farming is not possible especially when located on a peri-urban area. In this special case, farmers use industrial herd's food and resort to hormons and GMO grass. This is what we need to avoid to help milk come green (KINGSTON, EDWARDS, 2009). For countries where extensive breeding is not possible, such as Algeria, farmers should think of reorienting their activity into another one which would feet to the local conditions (sheep or goat breeding).

7-3. Improve manure management and preserve water resources

Livestock owners who provide environmental services should be compensated. compensation could be the reward for a better soil

management that helps restore biodiversity or for a better pasture management that fixes carbon rates. In the same way, herd owners who reject their wastes in the streams or emit ammonium in the atmospher should have to pay the price by applying the « polluter pays » concept (KINGSTON, EDWARDS, 2009).

8- CONCLUSION

Lawmakers, entrepreneurs, educators, and advocacy organizations promoting sustainable development, healthcare, economic justice, and ethical treatment of animals see green consumerism as one solution. Green consumption movements in India, China, Algeria, the WASEC and elsewhere are changing industry practices and helping increase demand for sustainably produced food throughout the global system. This is why educational campaigns should be prepared to inform consumers and help them make better choices. A grassroots campaign to demand safe, sustainably produced milk in schools has to be launched. Greeb consumer activists believe that making small changes in their habits could have a cumulative effect and begin to change how dairy products are produced.

Availability of green dairy products is increasing as markets for rBGH- free, grass fed, and organic dairy products expand. Certification and labeling standards help consumers identify sustainably produced food. Humane certification programs help consumers connect with producers who use humane animal husbandry and natural feeding practices. Green consumer buying quidelines are widely available, but consumers must beware greenwashing schemes in which distributors and marketers promote their dairy products as sustainably -produced when in fact producers are not taking necessary measures to conserve resources and protect the health and well being of their animals.

Nevertheless, breeding field is often managed with variable politics goals and governments, frequently, suffer from facing socio-economic, health and environmental issues. The fact is that too much people are living on their breeds, that’s what reduces action fields for public decision-makers and includes politically sensitive choices.

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