Responsible production and consumption from a sustainable approach

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Abstract

The article aims to reflect on the role of human beings in responsible consumption, through the recognition of sustainability as a promoter of actions to care for the environment, by making rational use of resources and generating constructive dialogues on the situation of the planet, which promote care actions in the new generations. In such a way that the coexistence of species on the planet is possible and viable. We present education as a promoter of sustainable practices, since it can promote awareness, values and behaviors that benefit the environment. These actions oriented to the transformation of conceptions, habits and visions from the individual, will transform the collective ideology. We rely mainly on thinkers who express their contributions on the subject, such as: Adela Cortina, Antonio Elizalde, Boris Marañón, Fritjof Capra and Leonardo Boff. Likewise, we explore their positions and express our own, oriented

to recognize the eminent interconnection between living and non-living beings. In the final reflections, we highlight the role we all have individually, through sustainable lifestyles for the preservation, conservation and protection of natural resources.

Key words: Development, sustainable, consumerism, awareness, education.

Introduction

"We are in a kind of blind flight: we don't know where we are going, and we have already reached a limit point. The Earth has lost its equilibrium.... If humanity does not have an urgent strategy, there may be a collapse of the life-system."

(Boff, 2017).



Through this article we want to express our sense of solidarity and social responsibility with the future of the planet, for the conservation of its species and wealth, based on a structural change of individual and collective consciousness, based on the practice of sustainable processes. We begin the journey with the problem statement; we continue with the linear form of the production of the objects we use in daily life and the inconveniences caused to the global community and its impact on the planet, to then present alternatives that favor sustainability processes. We finish with the identification of the educational field, as the main sector and building agent of a more sensitive and conscious humanity of the importance of the care and preservation of present and future life.

The call

For some time now, academics, ecologists and environmentalists have been inviting humanity to take a closer look at the serious consequences of the systematic abuse and destruction of the planet. The United Nations Organization (UN), since 1972, has convened four major international summits, involving heads of state and government, which serve to create a new institutional structure for the protection of the environment and the promotion of development (Vengoechea, 2012, p1).

In Latin America there have been some alternative solutions, such as the "United for a Clean City" program, in which a group of 170 Peruvian women recyclers in the district of Arequipa combat the impact of garbage on the environment. In the past, only 5% of solid waste was recovered in the unsanitary conditions of the city's landfills; today, almost 25% is reusable (Jabiel, 2020).

Costa Rica has also launched an ambitious plan to eliminate fossil fuels. By 2035, it will have an electric vehicle fleet of 25% of private cars and 70% of public transportation, so that by 2050, 100% of vehicles will be zeroemission vehicles.

In Colombia, a group of women living in the humid zone of the department of Nariño found in the cultivation of anthurium (a flower native to tropical areas of South America), a source of livelihood for their families, a dream of progress for their children and an example of social resilience in an area that, for years, was witness to armed conflict.

Sustainable development

Sustainable development is "development that meets the needs of present generations without compromising the ability of future generations to meet their own needs" (UN, 1987, p. 1).

The United Nations Development Program (UNDP), in 2015, set out 17 goals for sustainable development, which are integrated in such a way that intervention in any one of them will affect the results of the others. Creativity, knowledge, technology and financial resources are required to achieve the goals. The proposed goals include: promoting sustainable agriculture, ensuring healthy lives and promoting wellbeing for all at all ages; ensuring access to affordable, reliable, sustainable and modern energy for all; promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; developing resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation, reducing inequalities between and within countries, among others.

These sustainable development objectives become the roadmap for the countries involved, with three aspects as a reference: vision, coherence and dialogue and voice. The vision considers actions with a long-term view; coherence states that the development of a region will include, in addition to the economic dimension, the social, environmental and prosperity dimension. And for the interlocution and spokesmanship, a permanent dialogue of the government and the appropriation of all the actors of the society are required.

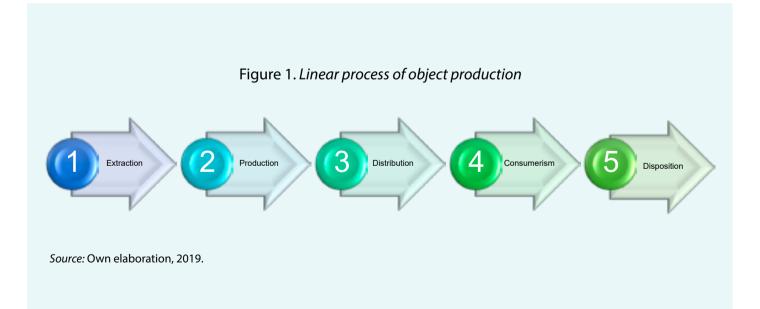
Impact on the planet

Everything we use in our daily lives requires raw materials provided by the planet. If we make a thorough review of the products we consume, we see that we have created needs that did not exist before. We need to change our actions, because industrialization, the commercialization of things and economies that measure the capacities of countries have left us consequences such as: air pollution, increased toxic waste, climate change, pollution and reduction of water sources, and extinction of species, among others.

We have been permissive with these situations, changing our lifestyles, consequently risking the life of mother Earth. Therefore, changes are urgently needed that prioritize life in all its forms from being and doing. That is, from the process of inaction.

Regarding enaction (Varela, 2000) states that knowledge is evidenced in doing in context and at the moment in which we find ourselves. That is to say, it is not enough to know, but that this knowledge must be given a meaning and a sense to put it into practice.

Much of the responsibility for consumption falls on companies that, in order to obtain profits, do not limit their production or the use of raw materials, which causes an environmental impact by making use of natural resources as if they were inexhaustible. The following is an analysis of the documentary that was released in 2007 entitled *The Story of Stuff* (Fox, 2007) presented by Annie Leonard, an expert in sustainable development and environmental health, where she explains the linear production of the objects we use in our daily lives and the inconveniences caused to the global community. Figure 1 summarizes this process.



The *extraction* of natural resources is carried out to obtain the raw materials necessary for the production of objects of daily use in our society, but in most cases negative consequences occur at this stage. For example, in Southeast Asia, in the archipelago of Indonesia, fires are intentionally set in the rainforest to convert it into land for the cultivation of palm, which is used to produce low-cost oil, which in turn is an input in the production of cosmetics, detergents and processed foods (Fisher, 2016).

Production involves the process of manufacturing a product with the help of machines. In the last fifty years, industrialized countries have shifted manufacturing to the poor countries of the world. In the city of Bangalore (India), the industrial center of garment manufacturing, entrepreneurs have been pressured by multinational fashion companies to outsource their costs, for example, by making their employees work longer hours for the same salary in the face of the threat of losing their jobs (Morgan, 2015). These actions impact their labor income and therefore their quality of life.

In *distribution* or marketing, the product is placed within the consumer's reach. We would like to highlight two aspects that contribute to consumerism: perceived and planned obsolescence.

Perceived obsolescence uses shapes, textures, colors in such a way that the person in a short time perceives it as out of fashion and looks for its replacement. We are in a liquid society where novelty is rewarded and people are eager for new products; human beings do not stop being infants and the things we see in the supermarket are new toys that we buy, because we believe we deserve them and, in most circumstances, we buy by emotion or impulse.

The programmed obsolescence is a work of engineers, who by studying the resistance of

materials through virtual simulators observe their behavior for a certain number of times until breakage, facilitating the calculation of an estimated life to the product; in these analyses it is sought that the user does not lose confidence in it. It should be noted that in many cases the perceived obsolescence causes the person to change the product before meeting these planned minimums.

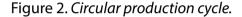
Consumerism is the most neuralgic part of this economic system in which the only thing that seems to matter is the utility of companies. We are a society that wastes its time in front of screens: TV, tablet, computer equipment, cell phone, video games, etc.; these devices are the entrance to the marketing game, advertising creates ideal lifestyles for women and men to seek happiness through the consumption of objects or services. Consequently, in order to keep up with the imposed rhythm, we assume unhealthy lifestyles that imply working more to buy more, sacrificing time for rest, family, and spiritual development.

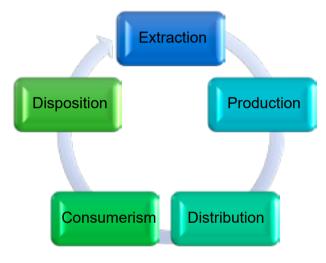
Consumption responds to deep motivations, to social beliefs that are expressed in lifestyles that deeply affect people's self-esteem, their feelings of inferiority and superiority, their idea of selfrealization, and that, thanks to the shrewdness of marketing, has become an interesting way of life in itself (Cortina, 2002, p. 17).

According to Hawken (1999), in the United States, in less than six months, 99% of all materials used to produce an object become solid waste, which goes to landfills or incinerators, gradually destroying the biosphere through water pollution, methane emissions and the release of dioxins, a highly toxic material (p. 81). In analyzing this reality, we recognize the importance of responsible consumption, reusing and reducing the use of materials.

From the above, we identify how, unlike other living beings, humanity is solely responsible for the changes in our environment. Recognizing from our individual conscience that we are interconnected beings in and with the planet, will allow us to understand that our quality of life depends on collective thinking and respect for all forms of life.

Therefore, it is important to change the way objects are produced, from linear cycles to circular cycles, in order to assume responsibility for the use of natural resources by reducing and reusing raw materials, i.e., companies and industries should be concerned about giving a different destination to their own waste. Figure 2 shows how the phases in a circular process are interrelated.





Source: Own elaboration, 2019.

Human efforts for sustainable living

One of the requirements for healthy living between the environment and the use of natural resources is to allow the satisfaction of needs without compromising the resources of future generations and their aspiration for a quality environment. From this approach, it is important to highlight the need for a relationship between nature and its consumption. One of the keys to living in harmony is not to impose dominant lifestyles on other territories. The problem lies in the fact that this discourse remains only in theoretical declarations or manifestos, and that, in practice, there is no evidence of practical actions and changes in behavior. Elizalde (2003) conceives reality as a sequence of events that originate in the interaction with others in the world. He proposes four ideas to change the conceptions of reality and begin to act in response to them. The first lies in discovering the meaning of the crisis in which we find ourselves; the second is how we perceive reality; the third is related to the way we value, feel and act, and even how we get excited; and the fourth idea is based on the conception of meanings.

In Figure 3, resilience, openness and listening are related as relevant elements in the construction of life that promote a reality based on the recognition and respect for all living beings in their own characterizations.

Figure 3. Practical notions of life interactions



Source: Own elaboration, 2019.

We need resilient societies, capable of overcoming actions that harm the environment and prioritize the common benefit; to have the notion of openness to generate evolutionary strategies from the collective and listening as a key aspect that gives us the opportunity to identify the true information in order not to lose sensitivity for the other.

Alternatives that Favor Sustainability Processes

Transforming ourselves into conscious consumers

For Cortina (2002), interpreting consumption allows us to identify how people seek to satisfy their needs and desires, show their power and success or raise their low self-esteem. The consumer does not realize that he is permanently made to go through cycles of satisfaction and dissatisfaction, which have involved him in the networks of anxiety, leading him to uncontrol and to the search for resources to acquire new products offered by the market; more attractive and with new functions than those previously acquired.

This is a reason to highlight the importance of overcoming the level of consumption by simple arbitrariness, towards a conscious consumption that, in the medium and long term, will favor the various forms of life on the planet. In spite of the call to regulate consumption, in the absence of demanding mechanisms and policies, it is increasingly unsustainable, since the emission of toxic chemical products into the atmosphere, water sources and soils, and uncontrolled experimentation on living beings, continue to increase. As a result, health deterioration and the depletion of non-renewable resources occur. Respecting the environment through conscious consumption is the guarantor of a sustainable standard of living.

Therefore, the transformation into conscious consumers implies changing habits and making decisions that are the result of an environmental and social commitment, which in turn are generators of personal satisfaction. It could start with: reducing excessive consumption; choosing products with low environmental impact that come from certified companies; recycling and reusing; assuming ethical and ecological positions; participating in initiatives and campaigns that promote health and

differentiating environmental protection; between the necessary and the useless; refraining from acquiring products, goods and services that had to do with the exploitation of other beings and the abuse in the hiring of the population; discovering what is implicit in the business dynamics and its marketing strategies, which generally seek to arouse interests to only consume, discard and consume again. In other words, it is about creating new ideas towards a conscious consumer who observes and analyzes all the variables that intervene in the product cycle and makes assertive decisions with life.

Vibrant local economies

The vibrant local economy promotes environmental conservation, which implies the creation of goods and services that stimulate economies based on local or regional products, specifically in the fields of food, production, processing, distribution and consumption. Among the advantages generated are: support for the local economy, improving employment; development of sustainable principles for the location of businesses with organic agriculture; consumption of local products; and promotion of cultural exchange.

An example of a vibrant local economy business recognized by the Business Alliance for Living Economies is BALLE, founded in 2001 by Judy Wicks, a Philadelphia restaurant owner, and Laury Hammel, owner of a group of sports clubs in Boston, which they recognize as the heart of the community-based economies movement by providing resources, training and connections for businesses that want to build a more sustainable economy. BALLE also emphasizes that businesses are better when they are locally owned, use local suppliers and operate as part of a community. The group's philosophy is ecological: living economies are like all living systems, and function best when they are diverse and recycle energy and resources (Spores, 2019).

According to the United Nations Organization (CECODES, 2019) by 2050 we will be more than 9 billion human beings on the planet and we will need to produce 60% more food, a big task for agriculture. Agriculture is recognized as one of the most important activities for sustainability. According to the UN, agriculture is the sector that produces the most jobs in the world, providing a livelihood for 40% of the world's population and is the largest source of income and work for poor rural households.

However, man has incorporated chemical elements that allow him to sow *en masse*, and when the amount of land sown exceeds the limits of saturation by chemical elements, consequences such as the contamination of water sources and the atmosphere are generated, directly affecting ecosystems and communities.

Some examples of activities that could contribute to agricultural sustainability include: recovering spaces for crops using technologies that benefit the soil; contributing to the strengthening of biodiversity and small producers; prioritizing the safety of people and the integrity of workers; generating state policies aimed at protecting and conserving soils, among others.

Likewise, we consider that agriculture has to make people, it has to generate solidarity with the same people and with nature.... An agroecological agriculture respects the principle of caring for the land and from this, cultures are created, people and community are generated, and a more humane human being (Marañón, 2014, p. 166).

An example of the practice of sustainable agriculture is presented by Japan, which allocates resources to improve irrigation infrastructure in developing countries. It is also characterized by Washoku, which is a social practice based on a set of skills, traditions and knowledge related to the production, processing, preparation and consumption of food with natural and local ingredients such as rice, fish, vegetables and edible wild plants. It is a practice declared intangible cultural heritage by UNESCO. They also prioritize the creation of public policies in favor of the agricultural sector, which contribute to the progress of societies, communities and the planet (CECODES, 2019).

Green chemistry.

Green chemistry, or environmentally *beneficial chemistry*, is concerned with the design of chemical products or processes that reduce or eliminate the use and production of hazardous substances. In 1991, this initiative becomes the mission of the US Environmental Protection Agency - EPA (Ling and Perez, 2019).

In Figure 4 we present the twelve principles of green chemistry that Anastas and Warner (1998, p. 30) proposed to reduce toxics and maximize efficiency in the use of material and energy resources through cleaner technologies.



Parroquia Jesús Sacrificado en Bucarica – Floridablanca (Santander)

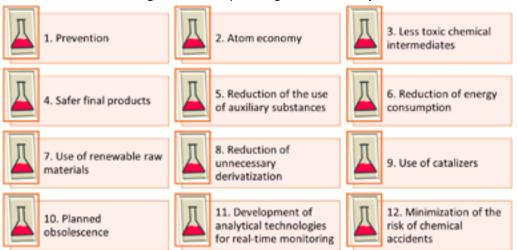


Figure 4. Principles of green chemistry.

Source: Own elaboration, 2019.

Green chemistry addresses a wide range of issues, including climate change due to the emission of greenhouse gases, for example:

- In 1996 the chemical company Dow receives the "Chair to Green Chemistry Challenges" award for patenting a process that replaces ozone-depleting chlorofluorocarbons CFCs with carbon dioxide CO₂ in the manufacture of polystyrene foam, a material of mass use in the packaging industry (EPA, 2019).
- Methanogenesis in ruminants is replaced by the use of secondary metabolites (saponins, tannins) from plants, i.e., methane emissions are reduced by a change in the animal's diet and not by the application of antibiotics (Vélez, Campos and Sánchez, 2014).
- The impact of this movement demands the participation of all sectors of society, especially education, since it allows the promotion of training spaces where young people are responsible and aware of the environment. Likewise, it is required that the scientific community and governments include policies in their development plans related to the need to project a better quality of life on the planet.

The task of education to strengthen sustainable living

Each person identifies himself as a citizen of a certain country. However, when it comes to caring for the environment, the corresponding citizenship is that of being planetary beings. Therefore, respect arises as an intrinsic value that is in turn inclusive, so that there is harmony in the relationships and interconnections that are established, since no proposal will be successful if new positions are not generated in the face of the possibility of making the planet's existence more durable.

It is a challenge for the 21st century to achieve educated citizens and active participants in the processes of their own or collective initiative on the issue of environmental management. It requires: "An environmental education that should promote the acquisition of awareness, values and behaviors that benefit the efficient participation of citizens in the decision-making process regarding the environment in which they live" (Moreno and Navarro, 2015, p. 175). What is happening with the environment affects society, since large masses due to their geographic and economic position are vulnerable to the drastic changes that nature is experiencing; this is a socio-environmental problem. Hence the need to change attitudes, to participate with forceful and concrete actions.



So, we insist that the care of nature and life is everyone's responsibility, it is an arduous task, of not lowering our guard, of being vigilant, of permanently seeking optimal solutions and self-organization, to achieve satisfactory standards of living and visualize a healthy and sustainable future for the following generations. For this reason, the task of education is of vital importance, because by carrying out actions that benefit the environment, we promote sustainable lifestyles and the formation of critical citizens in the face of consumption and their needs. Such actions oriented to the transformation of conceptions, habits and visions from the individual will manage to transform the collective ideology.

We need changes where thinking is focused on the intelligent use of the planet, its resources are administered in an austere way, and human beings must think about all the species that coinhabit it and that need to exist and continue living. It is necessary a change of acting, from the depredation of the resources provided by the planet, to an ecological, respectful, simple use, where the pertinent and necessary means are generated so that we inherit to future generations a self-sustainable Earth, in which we no longer poison the subsoil, soil, water, air and everything that is inside our house, with polluting elements. It is about using resources in a sensitive and more humane way.

The reflection continues towards the need to think about change from a new vision of the world centered on new values, new attitudes and lifestyles that transform our inner being and thus provoke changes in society, that is, generate structural changes.

The change that is expected to be generated in humanity has its niche in individual thinking, in the family, in schools and in the community, trying to provoke a new awareness that goes hand in hand with the care of the environment from the practical point of view. These social groups will not be the only ones involved and committed to the formation of a sustainable culture, but in turn extend this purpose to all areas, to the heads of governments and to support the advocacy groups that have been created for this purpose, and take advantage of the various media, for the dissemination of projects or campaigns that arise in this regard.

The main challenge that arises from our development as ethical beings is to assume responsibility for our actions in the world, and to be able to understand that our quality of life reaches its fullness when we transcend from our individual consciousness to a form of consciousness capable of feeling as our own, not only our own needs, but also those of all other human beings and of all forms of life (Elizalde, 2003, p. 19).

In order to form planetary citizens, it is key that educational institutions develop transversal projects related to the care of the environment as a strategy of solidarity, with regional and global proposals, seeking to raise awareness among students on the use and location of waste in the right places, taking care of water, taking advantage of natural light and seeking through negotiation the solution to conflicts so that values prevail. Likewise, to promote the culture of reducing the elements of consumption to what is strictly necessary, citizens who do not get carried away by marketing and who make critical readings of what they are being sold so that a constant reflection of their needs arises.

In order to change the horizon and the view of consumption of false and true needs, it is necessary to have visions to analyze the world and the ideas from various angles of view, this is how Elizalde (2003) develops six visions that are shown in Figure 5.



Source. Own elaboration (2019).

Elizalde (2003), based on these assumptions, invites us to look from different perspectives in order to scrutinize the true message that is sent to us through commercials, news, information and interaction with other people, with the intention of awakening desires and establishing new needs. When we look from different angles, that is, when we change the focal point of vision, we appreciate the details, we change our position, new ideas and mental images emerge, we discover errors of interpretation, we mean from our experience and vision of personal worlds and we look for similarities and differences with previous experiences.

According to Capra (1992) we are called to stop talking and thinking about how we are going to take care of our environment and instead get to work, to look reality in the face, take the knowledge and put it into practice from a healthy and sustainable lifestyle.

Final thoughts

Sustainable development refers to the process of preservation, conservation and protection of natural resources through the participation of human beings. It is necessary to observe our daily actions and identify the lifestyle we lead in order to recognize that superficial needs have been created. We need a change in our actions through sustainable lifestyles based on the care of the environment; first, from the individuality to influence later on the collective and thus, act consciously against environmental pollution and deterioration of natural resources. Among the lifestyles that promote sustainability, we recommend some such as:

- Living in harmony without imposing dominant lifestyles on other territories.
- Analyzing the environmental situation in which we find ourselves, how we perceive it and what we are doing to improve it.
- Promoting resilient societies to recover from the damage caused to the environment by humanity.
- Practicing conscious consumption of local products by changing habits.
- Promoting regional exchange to build vibrant economies.
- Producing and exchanging as many products as possible locally.
- Recovering spaces for crops that benefit the soil and contribute to the strengthening of biodiversity and small producers.
- Promoting products that reduce or eliminate the use of hazardous chemicals.
- Striving for an education that promotes critical thinking and recognition of our role as citizens of the earth.

The responsibility for the future of humanity is in our hands. There is an urgent need for a structural change in our thinking that will lead us to act consciously for the collective benefit. In other words, we need to *relearn how to be and to be in nature*.

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