



Inglês Vera Cruz

Field Trip 2019  
**Development, Inhabiting  
and Living: a Study of the  
Impact of Society on Nature in  
São Paulo and Baixada Santista**

1º ano - Ensino Médio

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**São Paulo, 2019**

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## INTRODUCTION

# Field Trips: A Must in Anyone's Learning Process and Development as a Thinking Social Being

**A**s part of Vera's High School Program, 1st Grade students travelled last September on a field trip to Baixada Santista and Engenheiro Marsilac, a district area South of São Paulo capital city.

Aiming at investigating further the relationship man-nature in these places, they analyzed people's various ways of inhabiting and living there to link man's different forms of increasingly occupying greater areas on the coast and in the surrounding hills.

From such a daunting challenge, the students wrote their own opinion essays on appealing topics which impacted on them along such a

journey. All reflective essays set up together ended up in a cross-curricular eBook; from its writing process, students progressed a great deal in research work, language gaining, discussing through the reading of current, original texts in English and learning how to structure that genre authoringly. As sound as that, such a project enabled their CALP (Cognitive Academic Language Proficiency) to evolve exponentially.

Join us to enjoy our students' findings and innovative paths!

*Inglês Vera Cruz Team*

I

# **Sustainability and Quality of Life**

# Is It Possible That Our Everyday Meal Has an Impact on the Planet?

Ana Luiza T. Teixeira

**I**s it possible that our everyday meal has a major impact on our planet? A huge number of people stopped ingesting meat and other animal origin foods because they consider this possibility.

While it is a common habit to have meat every day on the plate all over the world, 25% of all the global climate change problems can be attributed back to the food and the choices that people are actually making about what they eat on a daily basis. Therefore, the consciousness of the society about this data demands a priority to prevent a further diseased planet.

The personal option of eating meat is not the only cause for climate change. The livestock requires being fed and well cared, and they are responsible for 14% of the global greenhouse emissions. Thus, woods are being taken down to provide pasture for the cattle and there is also a huge demand for grains to feed them. Those grains could relieve 3.5 billion people from hunger. In other

words, our food is being digested by animals. By the same token, the place where those grains are produced is responsible for 75% of the climate change.

Furthermore, the ruminant animals, such as cows and sheep, are certainly gassy. The methane produced inside those animals is 25 times more hazardous than carbon dioxide. Along these lines, we learned that the local communities from Cubatão we visited in our field trip ingest many natural plants and seeds from the “Mata Atlântica”, and chicken and native fish for protein, which have a much lower percentage of carbon dioxide.

As a conclusion, the elimination of having meat every day would have an unquestionable positive effect on the climate change problem. Many people have already opted for at least reducing the meat eaten to once a month, while favouring fish and chicken. Climate change has a solution; we just need modifications to be made by our society.

# How to Achieve Quality of Life?

*Flavia Vallejo*

**A** standard of living constantly desired by us is defined as quality of life. In essence, it means the general well-being of individuals and societies, outlining positive and negative features of life. It involves good physical health, quality education, clean water and sanitation, decent work, peace and justice, among others.

However, it is not a readily accepted fact that these same concepts must necessarily be the same for everyone. Discrepancies immediately appear since we live in an immensely unequal country, and each person has distinct necessities and requirements to achieve their essence of quality of life. For each, some aspects acquire more value than others and vice versa, depending on their own perspective.

One example of what was mentioned above is the “Cota 20”, a community constructed near the Anhanguera railroad, in the state of São

Paulo. Being interviewed, residents from the area told us that they were forced to leave their houses due to the damage caused to the Atlantic Forest nearby. Some of those reported that their living conditions considerably enhanced since they moved to the big city. In contradiction to these statements, another group of people said that moving from the “Cota” was a truly awful experience, making their life particularly more difficult in a number of aspects.

All in all, achieving quality of life may be more a state of mind than direct actions as a whole. It is all about being satisfied with the fundamental aspects that really matter to your own personal life and settling with what is within your range. Anyway, it is also important to regard this whole situation from a communitary point of view. Aiming at everyone’s necessities, accepting and seeing the social differences and needs that different groups face is indeed absolutely essential.

# What Is Quality of Life? What Should We Do to Achieve It?

*Pedro Mazzucchelli Conti Jardim*

**A**ccording to Google, quality of life is the standard of health, comfort, and happiness experienced by an individual or group. With that said, how can we achieve it or, at least, do our best to make sure everyone experiences it?

To ensure quality of life for everyone, we must first put other's needs in front of our own desires. Going on our field trip to the city of Cubatão and talking to many residents in the area made me realise that there are people that live under terrible conditions just because no one, specially the huge corporations based there, is willing to give up things they do not need in order to help others. In a society with good quality of life, everyone's needs should be more important than anyone's particular desire, especially if we do not depend on those to remain alive.

In addition to this, if everyone is not able to fulfill their needs, they can even die because their lives and their bodies may totally depend on these needs. For example, if we suddenly stop drinking water, our organism will start to die. In many places, drinkable water is not available for people who have no quality of life. When we have low quality of life, we do not have access to basic sanitation, something that prevents us from catching diseases and being unhealthy. In other words, not having a good quality of life makes you unhealthy.

It must be clear by now how harmful for our health having a poor quality of life is. How can we then help to prevent it? To help others, we should try to raise awareness so that everyone that can in any possible way help. Helping means donating money, but also time, to organisations that provide help and quality of life for those who need the most. Also, we must stop thinking just about ourselves and what we want and try to donate from ourselves to help others.

# How Can We Change Our Eating Habits to Help the Environment?

*Olívia Blay de Castro Abreu*

**U**nder no circumstances will we have the chance of having a Planet B. We need to preserve the one that we have. Nonetheless, the human egos are colossal, being a tremendous threat for the Earth. Pairing this fact to the food that we eat, we will find ourselves facing a substantial impact on the development of the world.

A significant percentage of all the global climate change problems can be referred back to the choices that we have been making daily about what we eat. This data is based on a video from the University of California, "The diet that helps fight climate change". Opposing to what a great number of people say, meals based on meat and derivatives can be alternated with other greatly healthier food.

For instance, in our field trip to Cubatão, we went to the neighbourhood COTA 200, where we ate "punks", which are indigenous plants that occur naturally in the area and are edible. Likewise, it is a sustainable way of helping the environment.

It is crucial to remember that local plants, which are previously fitted to the local environment, grow requiring less water, saving time, capital, and, last but not least in importance, also giving a natural habitat for animals. In other words, they are definitely a very environmentally-friendly option.

Concluding, if we all diversify a tiny part of our diet, we can help modify the planet. A very simple measure like substituting meat and derivatives for local seasonal vegetables will make planet Earth deeply thankful for your cooperation.

# Quality of Life: Does It Go against Sustainability?

*Andre Alberti Soares*

**O**n our present days, one of the many objectives that every country has in mind is achieving a high quality life for everyone. Education, health and transportation are examples of what a nation should enhance to be recognized and considered good internationally. Still, as everyone knows through the news and every social media sharing it, as a result of human recent actions, our world is getting limited in resources. If humanity keeps exploring nature the way people are doing nowadays, the planet will not be able to handle it.

There are many reasons for not caring at all about the environment. One of them is basically economical. Outlawing whole sections, such as the agriculture or the chemical businesses, can really damage entire ecosystems just in search of substantial profit. At the moment, as one exam-

ple, agriculture corresponds to 21% of the Brazilian GDP and we do not know at what expense.

Another example is “Carbocloro”, an industry in the city of Cubatão in Brazil, which produces chemical products for other factories. Even though it is rather environmentally unfriendly, shutting it down would really ruin many other industries, ergo, the economy. In other words, it would definitely impact dramatically on a great number of citizens’ lives.

All in all, changing the way in which a nation develops is a really hard challenge. Unless everyone commits to the cause, change is not yet to come. Throwing away our cellphones and changing the ways in which most of us live nowadays would be a huge step towards a more sustainable development. But is it feasible?

# Can Sustainability and Quality of Life Co-exist?

*Luana Kirschner Kotscho*

**D**oes sustainability go against quality of life? Are they the same thing? How can they co-exist? Those are presumably some commonly asked questions nowadays.

It is no secret that our planet is in need of help, as it is gradually being destroyed. The fires at the Amazon Rainforest, all the environmental pollution, they are all outcomes of greed and capitalism, all consequences of the absence of sustainability.

It would be marvelous if companies became more associated with the environment. We disconnect ourselves from nature at the moment we begin to see it as a sole source of materials, which is what happened in the city of Cubatão when the industrial site was installed there in 1971. At that time, the forest was used with no conscience of the damage caused

and pollution reached the most excessive level it has ever reached.

On the other hand, contemplating that the few huge corporations that have the power to genuinely make a big impact will try a change is utopic. Those companies would not profit as much anymore, so they avoid it, assuming the problem is not theirs. UNIPAR is a corporation located in Cubatão, which is a great example of a company that pretends being sustainable and convinces people that they are, instead of actually doing something to really make a change.

All in all, for a few people, sustainability means quality of life and they really work steadily towards it. The problem is that those who should care and possess the power to make a crucial difference are blinded by capitalism and, therefore, ignore that their personal greed is killing our planet.



# Non-Material Quality of Life

*Rita Barbiellini Sáfadi*

**F**or some people, quality of life is simply being able to live a favorable life. Regrettably, for most people, it is based on material possessions, and how much “stuff” you own. That is what has been affecting sustainable development.

Sustainable development is established on the idea of progressing by doing as little damage as conceivable to the planet. We live in a society that could effortlessly reverse their habits, but we positively appraise capitalism more than preserving Planet Earth’s nature. We conclude that if other people are not acting upon the imminent end of natural resources, we should not either. However, we should, as conscious people, determine what to be done.

Therefore, if we envisage quality of life as something material, it means we are everlastingly looking for more. Furthermore, if we are always on the look for more, and constantly acquire more, then

products are going to continue being produced, consuming material from nature, and essentially wasting it.

When the world comes together and decrees that it demands change, tremendous results are accomplished. Those doing the most catastrophes are the elites. However, they only represent 3% of the population. In the neighborhood “Cota 200” in the city of Cubatão, people practice simple activities that regard preserving nature, such as creating greenhouses for the cultivation of simpler plants, which is also a marvelous exertion of social and environmental purposes. Besides that, there are many courses of action we can take, such as eating less meat, since livestock occupies colossal space.

If everyone applies that same concept to our everyday life and to all the products we acquire, we can decrease mass production and, accordingly, save the planet.

# How Are the “Bairros Cotas” Changing to Become a More Sustainable and Pleasant Place to Live?

*Luiza Mendonça de Barros*

“**B**airros Cotas” is a close-knit community living nearby an area where reforestation is taking place. The residents are far from wealthy, so their living conditions and infrastructure are really precarious.

As a result of that, the community had to together establish a higher quality environment. Therefore, they commenced to work collaboratively on a number of projects, among them “Do Ninho”, “Arte nas Cotas” and “ConCon”. “Do Ninho” is a restaurant, successfully managed by the community, specialized in traditional local food, including the delicious avocado ice cream.

Besides the restaurant, there is “Arte nas Cotas”, an art business

which paints very popular clothes to sell as well as painting their neighbourhood beautifully. Eventually, all the surrounding area started to be more colorful and welcoming. The third project is “ConCon”, a regional newspaper and site on the internet, which brings more visibility to the vibrant community, giving them a more compelling voice.

As you can see, these projects are great examples of how collaboration in a lively community can transform it into a more sustainable place for all their inhabitants, something that cannot be ignored. Seeing them blending in together to make their community a more pleasant place to live is definitely a remarkable example to be followed.

# How to Find and Provide Life Quality If We Have Different Needs?

*Manoela Varella Peixoto*

One of every nation's goals is to achieve and provide life quality to all their citizens. However, nowadays, with the social inequality we have established, this has become one of our most arduous challenges. Different social groups want to achieve different purposes. While many attempt to reach economic growth for their companies without even thinking about the environment, others work as hard as they can to attain the basics, the bare minimum. So, in the end, whose priorities should we meet?

In our field trip to the city of Cubatão, we were able to visualize those different perspectives very easily. While the professionals that worked on CDHU and were respon-

sible for reallocating the people that lived in the “Bairros Cota” affirmed the removal was for the greater good of the locals, the ones that suffered the process of reallocation asserted they would give anything to go back to where they used to reside. According to the interviewee, their life had markedly superior quality before the relocation process, conflicting with the authorities' arguments.

All in all, we are never able to fairly work taking into account just one side's requirement. It is of tremendous importance that we have, in political institutions, an ample representation of all social needs and concerns. Therefore, we can at least try to guarantee a more equitable and possibly outstanding life quality.

# How Can Sustainability Directly Affect Health and Life Expectancy?

*Amanda Rozhanskiy*

**W**e are deliberately killing each other without even recognizing it. Due to the almost daily environmentalist announcements, we all find ourselves aware that sustainability presents itself as the way forward. Nonetheless, it may not be known yet how sustainable responses could eventually improve our general health and, dare I say, even our life expectancy.

Recently, my school has organized a field trip to the city of Cubatão (right next to São Paulo, Brazil) and we had the opportunity to directly observe constructive examples of advanced environmental recovery and heinous predatory industrialization.

As being Cubatão the former most polluted city in the whole world, it has largely overcome the dangerous scenario of both causing the rise in the frequency of life-threatening respiratory diseases and negatively affecting newborn children. Consequently, chronic such diseases, including COPD and asthma, are re-

sponsible for a substantial health and financial burden for the government. Not to mention that data from the Ministry of Health shows that 44% of the population in Brazil suffers from respiratory diseases, being them the 3<sup>rd</sup> leading cause of deaths.

As well as that, we found ourselves startled since Cubatão's rainforest is gradually regaining its force. Sustainability has become a common objective to most of the region's residents and, as a result, pollution-related diseases have decreased in number. Such improvement can serve as an example of how not everything is lost and of how we are yet capable of making our planet's air clean again (or at the least, cleaner).

Bering in mind Cubatão's bewildering recovery and how pollution can gravely affect one's health, we should definitely invest more in our well-being through more rigorous industrial regulations and both preserving and creating new environmentally protected areas.

# Why Was CDHU's Relocation of "Bairro Cota's" Residents Unfair?

*Fabiana Tarantino*

**I**n the month of September, I went to Cubatão on a field trip with Escola Vera Cruz to Cubatão to study its history and its situation nowadays. There, I visited people that lived at Bairro Cota, older communities created over 60 years ago and built in the middle of the forest, before there was the concern for the preservation of vegetation that exists now. But, in the last years, the state government and CDHU's people (Centro de Desenvolvimento Habitacional e Urbano) has been removing more than 50% of the families living in those neighborhoods, because they were in risk areas or inside protected areas that belong to Serra do Mar Park. In my opinion, the relocation was really hard with the people that suffered with it. Of course it was necessary, but the way that it happened was wrong and very unfair.

There were conflicts: some of the residents refused to leave their homes (and still resist in the present day, which I find acceptable) because they liked the place; some of them were forcibly removed and placed in CDHU condominiums, even those that refused to leave the Bairros Cota. First, I had a conversation with a CDHU representative who told me their side of the story. She said that the relocation was

necessary for the good of that area, which needed to be preserved and the houses installed there were not helping this process. Then, she said that the CDHU's condos in which the old residents of Bairro Cota were living were of good quality, but there was a price to pay. Those who earn up to 3 minimum salaries would pay 15% of this value, and those who earn more than 3 minimum salaries, would pay more than 15%.

To better understand the situation, I went to Cota to interview the residents that remained living there. They told me that the conditions in which they lived were precarious and the infrastructure was poor: there were no good schools, no opportunities for work. But they were still there because they had been living there for a long time. Knowing this, I went to the CDHU condos. There, they told me how unfair and aggressive was the mandatory removal by the authorities.

Considering all the information obtained, I drew my conclusions: the relocation was actually an expelling and removal of people who had been living in that place for over 60 years and, out of nowhere, the authorities (who never cared for that area) went there and expelled them.

# What Makes Someone Happy?

Bruno F Tonso

Since the creation of the concept of philosophy, in the 7th century BC (“Wikipedia”), finding out what is the formula of how to be happy is debated. The common sense responds to it as if happiness always equals—pleasure. In other words, a happy life is one which is full of fun activities. In contrast, I believe that happiness comes from the relation expectation-reality.

People argue that actions have intrinsic pleasure and, therefore, happiness too. However, this affirmation neglects the reason why humans act at all. We do things to try to be in a better situation than the one we were before. Since situations change, what is a “better situation” changes too. Consequently, acts do not have intrinsic pleasure. Therefore, “only do fun activities” is not the formula of happiness.

In order to understand the answer to this debate we have to stop trying to find a formula but find an explanation instead. Before any act we, humans, establish two things in our subconscious. The first is that we create a changeable hierarchy of our values and, only then, understand the meaning of “a better situation” in that moment. Secondly, our uncon-

scious searches for the best option and creates an expectation based on it. The sensation of happiness or sadness is a product of whether the reality is worst, equal or better than the expectation. That is why the normal response to good news (surprise) is very good; it surpasses the expectations of that situation (that was not high). The problem with this theory is that we cannot control our subconscious and so we cannot get the happiness formula. (“University College London”)

A practical example of this theory is the happiness generated after minor life improvements. The Cota neighborhoods, after some social and environmental issues, had several implementations, such as a system of treated water and plumbing. Someone from my social class would not feel good only with the same basic resources. Our expectations are higher. But, people from Cota that did not have the basic, after getting it, felt happier than if the same happened to us. (“Vera Cruz field trip”)

In conclusion, we will never accomplish to create the happiness formula if we cannot control the subconscious. There is no such thing as an activity that is always fun for everyone.

## Sources

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Vera Cruz field trip: interviews with Cota residents.

# Justice for a Few? What about Equality?

*Helena Ditt Stelzer*

**W**e are always hearing from important government people how the law is for everybody and that we all have equal rights and all these ready speeches. But, unfortunately, we cannot believe in everything we hear because, at least in this case, the law is not applicable for everyone. By saying this, I mean that the law is more severe with those who do not have a lot of money.

A great example of what I am talking about, is the fact that over 8 million people, according to IBGE, live in risk and/or natural preservation areas here in Brazil. Although the number is huge, only a small amount ends up being relocated.

Recently, I went on a school field trip to Cubatão and I saw people from “COTA 200” that were relocated, and the living conditions of those people are really precarious nowadays. By interviewing them, I realized that, every day, the law and the government are fooling with these people’s lives and changing everything suddenly, as if they were not humans. The majority of them ask themselves all day why only they were relocated while Riviera residents, for example, did not. “I find it funny how they only mess with the lives of people like us. Why they do not get rich people out of their mansions too?” (Rafaela, 23 years old).

I found it very curious how all those people from Cubatão were relocated, while Riviera is a preservation area just like Cubatão, but people there are not relocated, just because they have lots of money. Until today, 7,000 families have been relocated in Cubatão and a total of zero has been relocated in Riviera. And it is not that people from Cubatão did not try. According to interviews conducted by me, those citizens loved to live where they used to, and they did not even have the choice to stay. This, to me, is not equality under the law.

The fact that people from Riviera are not relocated while people from Cubatão are, only proves to us that the law is not applied to everyone, and it is only enforced on a few, just because they do not have huge amounts of money. The sad thing is that this inequality is not just in this case, it is in our daily lives, when the police arrest the criminal in the favela, but do not arrest the criminals in suits hidden in the filth of the government, who continue to steal in peace.

This is not fair. Justice should be the same to everybody, and we should not be quiet until everyone has the same treatment, regardless of their social class.

# The COTA Neighbourhoods Process of Relocation

*Filipe Silveira*

**T**he COTA neighbourhoods (95/100, 200, 400 and 500) were formed by the many workers of “Rodovia Anchieta” that needed to live nearby their work site. The major problem with the construction of these neighbourhoods is the high risks of landslides, because they were built in a rush, in a very unorganised way and in an inappropriate spot (unstable land). The government of São Paulo created an organ called CDHU (Compania de Desenvolvimento Humano e Urbano) to relocate these people to new houses. Despite the fact that some of these people were being unfairly removed, because they built their houses after the government declared the “Serra do Mar” as a preservation park area, relocation was a functional idea. It prevented a significant number of deaths and was an improvement to the quality of life of many people.

The problem about relocation was in relation to the people that built their homes after COTA was declared a preservation park area. In these cases, CDHU just expelled

these inhabitants and gave them no support, instead of finding them a new home. On the other hand, the number of deaths by landslides that were prevented was big, compensating, in a way, for part of the damages that the relocation process brought to all the former residents of these neighbourhoods.

Furthermore, sanitation in the COTA neighbourhoods was very poorly done or was inexistent; also, there were a lot of accidents caused by the proximity with the highways and there were a lot of diseases due to bad sanitation. As a result, some of the people I interviewed said that the relocation process was one of the greatest experiences of their lives. Since the relocation to the CDHU buildings, they have had access to a better quality of life.

Therefore, despite the damages from the relocation, the gains were greater. The old inhabitants of the COTAs, that once were at risk of dying from landslides and had a very bad sanitation system, now have a safe place to live with a better quality of life.



# Ecological Human Relocation – Good and Bad

*João Alfredo Cardoso Lamy*

**T**he point of ecological relocation is to preserve the wild-life by extinguishing harmful human contact. The one I will be focusing on will be human relocation, where inhabitants are removed to preserve the local ecosystem or to reforest the area. It benefits the local animals immensely, since they do not have the human interference in their natural habitat. On the other hand, you can think it is unjust, because it takes away people's homes and can destroy their communities. In the case of the "Bairros" COTA, it was the latter.

The relocation process was extremely poorly done. Families and communities were torn apart by CDHU (Companhia de Desenvolvimento Habitacional e Urbano) when they were trying to figure out who was going to live in which housing complex. This could have been avoided if they simply made the housing complexes according to the COTA (95/100, 200, 400 or 500) where the citizens came from, but I believe that it would have been an extra step and would have added more costs to this already expensive job. The cost cutting came at the expense of the community's integrity.

To reduce the loss of money (that came with the construction of

Rubens Lara, "Bolsão" 9, "Bolsão" 7), new costs of living were thrown upon the relocated citizens. This made it extremely hard for them to survive in this new area (according to several residents I interviewed), even though CDHU is not actually charging them the full price (they have a 10 year lease that they have to pay off). In their respective COTAs, they did not have the same expenses that they now have. This, along with the steadily increasing cost and an expiring time period, made it extremely difficult for low-income inhabitants ("Bolsão" 9 and 7) to really adapt to the housing units and their new life.

Another example is the Isle de Charles, in Louisiana (from CNN, by Bill Weir and Rachel Clarke). The inhabitants do not want to leave the only home they have ever known, but the choice of whether or not that happens was not given to them. The American government (called the "feds" in the CNN article) forced people out of their own homes, much like CDHU. They are going to be removed, whether they like it or not. It is not fair.

On the ecological point of view, it makes perfect sense. The people should not be there and, so, a logical solution would be to remove them. They are at risk of landslides and oth-

er natural disasters (like floods), because of the unstable land and area around the houses. This is a way of exterminating the damaging contact between the inhabitants (the wildlife) and the intruders (the people who built the COTA neighborhoods) and minimizing natural disaster casualties in the region.

To sum up, the people are being treated unfairly throughout the relocation process in the COTAs. They are losing their homes and being

forced out of their communities while being obligated to comply with new costs of living. But, the animals that once inhabited the regions are now coming back to their original homes, which had been theirs for a long time before people colonized the region. The people will suffer from horrible floods (like 2012 in Água Fria in Bairro da Fabril) and other unusual natural occurrences. The process is unfair to people. It puts nature over humans, which is the point.

# The Ones that Stayed

Laura Astiz Andrade

**A**fter our school trip, I was really intrigued about the people from “Cota 200” that did not relocate. CDHU is still helping them with a lot of things, such as the social programs (for example, the “Arte Nas Cotas,” a social work that took the unemployed women to work with art and make t-shirts.) and the improvements on the village. These little actions have been actually changing lives.

First of all, people from CDHU created (together with the local people) social projects. These projects are helping people that were unemployed. They are also developing the local economy. That is happening because with the new installations (social work installations), they can create products, such as t-shirts and magazines. The local people sell these things for tourists and other people from the village and because of that, the economy has started to change.

Along with the projects, CDHU and the people from “Cota” are also making improvements on the village. They are painting houses and streets, fixing the sewer, plumbing the water and turning unused areas into playgrounds and parks.

Besides, CDHU is also making a national park (in the area that people were relocated). They are doing that because that area is a preservation area and it should have been only trees and plants for a long time.

Unfortunately, it’s not only flowers. There are a lot of things to work on; for example, the people that were relocated still need a lot of help (house issues and family accommodations). But I believe that CDHU is doing a good job by helping people from “Cota 200”.

To conclude, I think that there are changes to be made but I am sure that if they work it out, CDHU’s people can succeed.

# Why Are Residents from the Neighborhood “Cota” 200 Critic Regarding Governmental Actions?

*Paula Gaido Cortopassi*

Since the Serra do Mar Socio-Environmental Recovery Program was created in 2007, with the proposal of relocating residents living for decades in geotechnical risk areas, there has been popular discontent. Not only because several families are being removed and relocated, but also by the urbanization projects of the areas that were considered safe for living. Looking out, it seems like it is a great improvement on behalf of people's safety; but once you talk to them, you realize there is more to see.

In most situations, there is a good and a bad side, and this case is no different. Starting with the residents who were relocated (if they were not send away) they would still be near their jobs at Cota 200, and life could even be easier since now they are living in the middle of the city, with access to hospitals, supermarkets, stores, schools, everything. On the other hand, there are some difficulties. Life in the neighborhood Cota 200 is different from life in the industrial area of Cubatão. According to several residents who were interviewed, when families were relocated to CDHU housing Rubens Lara, they started to pay rent and to have many expenses that were previously non-existent.

However, the criticism comes especially from residents who still live in the neighborhoods (Cota 200, Fabril, Cota 400) and suffer with the urbanization projects. After interviewing a few people – asking what they thought about the new sewerage system plant specifically – they all pointed something similar. All of them believed that the government and the organizations responsible for that project would be out of there before the year even ended. The streets would be bumpy, and the sewerage plant would not be finished - basically starting many projects which there is no budget or time to finish. According to them, that is what happens every time; these life changing actions have, by the government actions, a purpose of improvement that does not exist. The relocation of people had a direct impact on the lives of those who remained in Cota 200, as there was a decrease in local trade and thus in the region's profitability.

To sum-up, it is possible to observe that governmental actions, especially in that area, are not being successful. Just the opposite, what is not being taken to consideration is how those actions impact the thousands of lives that depend on that system to work.

# People's Lack of Empathy and the Impacts in Our Society

*Mariana Maués Franciscano*

**E**mpathy is the ability to share someone else's feelings or experiences by imagining what it would be like to be in that person's situation. Empathy is important in theory, but what about the practice? The lack of empathy among us nowadays is really noticeable and is increasingly taking part of our routines.

It appears that we do not care about other people's happiness if that does not benefit us. As an example, there is the relocation of the majority of the population of Cota's neighborhood in Cubatão with the objective of urbanizing the place. In 2007, many people were removed from their homes and placed in CDHU buildings, even though a big part of them did not agree with what happened, as seen through interviews conducted by Vera Cruz's students with some of the relocated people.

People's lack of empathy is also destroying nature and that is confirmed by the fact that deforestation, air pollution, forest fires and other disasters caused by men are still hap-

pening. Amazon's forest caught fire due to a very dry season, so when loggers burned the remaining vegetation to clear the area in which they harvested wood, the probability of burning was much higher, as they were in a period when fires could spread more easily and get out of control (Exame; The Verge)

When people are empathic, the probability of situations like that to happen is tremendously small but realizing that nowadays is hard work. That is because nobody really cares that many Cota's residents in Cubatão have had no explanations of why they were removed from where they lived, or even that burned areas of the Amazon could take centuries to fully recover. Both of those facts prove that empathy is a value that we need to stand up for.

To sum up, even if it seems like the value of empathy is vanishing up from our society, it is not too late to fight for it. Exercising our empathy is an everyday work and should be put into more practice.

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Vera Cruz's student's interviews

# What is the Legitimacy of the Relocation?

*Bento O. Telles*

**I**n the past 10 years, with the whole urbanization process happening in “Cota 200”, many people are being relocated to CDHU’s buildings located in “Cubatão”, São Paulo, by CDHU and by the government. There are many reasons why this is happening, but the point that is on discussion is if this is justifiable or fair with the families who have lived there for over 50 years.

Particularly, I do not think it is a bad idea to move people, especially when they are living near the roads and environmental parks, because beyond the danger that the cars in the highways present, there is also the danger of natural disasters such as floods or overflows. Yet, I do not agree with the way the government and CDHU have been doing this moving process since they haven’t been doing what they once promised.

If they keep doing it that way, they will only make the situation of the community who lives there worse. Therefore, the situation of people who do not have a good condition of life and are being suddenly relocated only tends to get harder because, almost overnight they have to pay for the water they consume, the energy bill and even to simply stay

living on their apartments. In other words, the government take people out of their houses promising better conditions of life and besides not fulfilling that, they make these people pay for things they did not need to pay before.

That said, it is easy to say that it is not justifiable to do what they are doing. After all, something justifiable is something acceptable and lawful, and the way this relocation is happening, it is none of these things. I mean, it is hard to measure a reason or a suffering, but based on what we got about how the lives of dozens of people are drastically changing for the worse, it is almost automatic to deduce that it is not working and that they need to change their attitude and treat this as a real problem that has got to be solved soon.

So, if done right, this relocation idea can help lots of people, but the way they have been doing it in the last 10 years is not helping anybody but themselves. I am not saying that, just because it is not being well done it should be thrown away, but they (government and CDHU) must think less about themselves and more about the families so that this problem can be well resolved and the relocated people will no longer suffer.

# Was the Relocation the Best Choice to Solve the Problem of People Living in a Risk Area?

*Rafaela Dowbor Silva*

**I**n an area close to Cubatão, many people live in a location of huge risk to their lives. An entire generation maintains houses and structures in areas that could cause an impact in nature and on society's health. A big decision was made relating to this area, called Cota 200. The arrangement involved the organization CDHU, which had the purpose to relocate people from Cota 200 to condos. My position and point of view regarding this topic is that the idea of moving people out of the region was indeed the best choice. I will highlight in the next paragraphs, the main and most important factors for the relocation that, as a consequence, had an impact in my opinion. However, we must know that in order to create an opinion, we must keep both sides in mind.

The idea of moving people out originated from the considerable risk to the population who was suffering for living in that area, in danger of serious injuries. Also, by taking people out of the region, nature would be preserved from pollution and deforestation. Since the location was a preservation park, it was very import-

ant to make sure that people would not increase the population and then deforest bigger areas, causing huge consequences to nature, including fauna and flora.

On the other hand, when CDHU relocated people from places where they had lived their entire life, they broke the community established there. With the relocation, people had to move to condos far away from Cota 200, in small apartments, where they did not know anyone. We must take into account that since Cota 200 was not a huge place, everybody knew each other very well. This factor made the location become a community where everyone would help each other. Having someone by your side, as a friend or family, is a very important element to a good quality of life.

In Cota 200, an area where at first no houses were supposed to have been built, the population who lived there did not have to pay the bills for the infrastructure they had. With this factor, people could use this money for other basic needs and maintain their family healthy. With the relocation, people had to move to condos made by CDHU, which were very

small apartments to fit the whole family members. The people that now live in the condos are having difficulties to find sources to pay those bills and make a balance between their recreation time and the bills.

In my point of view, I think that quality of life of a population is a factor of undisputed importance. Community is a value that makes anyone feel that they belong somewhere and that someone has empathy for them.

But the relocation of people was a move that was looking out for the health of the population. This stability, with no danger, is an aspect of extreme importance. In my opinion, the relocation of the population from Cota 200 had to be done in favor of people living without any risks. It is undeniable that it could have been done in different ways, but the health of the population is one of the basic steps for quality of life.



# Are the relocations of CDHU Really Saving the “Cota’s” and Factory’s Neighbourhoods Communities?

*Giovana Souza Pacchioni*

**M**ost people see the importance of the relocation of a lot of communities that are established in dangerous or preserved park areas, and how this may improve the quality of life of all these families. An urban development company from São Paulo, CDHU, says its teams are helping the families financially to face their new payments and with this program they can finally live better. However, how can we believe all these promises are working?

Firstly, we have to try to put ourselves in the place of these communities to understand the insanity in this concept of helping when we consider that rent isn't the only thing they are paying for. For example, at Cota's and Factory neighborhoods they cannot afford to pay for basic sanitation, potable water or even good medical care. How can they imagine that these people will now have conditions to assume these bills if they were already in debt in consequence of the high unemployment?

In contrast, we can't deny that the 5000 families' relocation from these neighborhoods may avoid landslip tragedies and help to preserve the Atlantic Forest. Unlike what the team field coordination said to us, the people who live in one of the neighborhoods of CDHU told us how they got in a place without any help, where they cannot see the rest of their friends and families (who are still living at Cota's), where there is no recreation and they are still unemployed. All this supports the view of how pathetic their concept of helping somebody's life is, when, after all, we know that the only exit that these people will find to get out of this mess is to come back to the places they used to live.

To sum up, I believe that the relocation is an important thing to do if the companies are really committed to the cause of taking care of the environment and the communities' life.

# What Has Happened to the Families That Live on “Cota” Neighbourhood?

*Joana Plapler Ferreira*

**I**t is said that a lot of families are being relocated by the government, without any reason, to the Cota neighborhood, which is in Cubatão city. It seems to me, however, that these people did not get enough information, because the neighborhood does not have the basic conditions to live which a neighborhood must have. Besides, the place where family houses are or were built became an environmental preservation area and some of the houses in the Cota neighborhood are not in good condition.

Firstly, I agree with some family relocation points, which is an action being taken by the government, because, as I said, the place where the neighborhood is located, has be-

come an environmental preservation area, which means that this area is important because it has the function of preserving water resources, the landscape, and the gene flow of fauna and flora, both in terms of stability and biodiversity. As well as this, preservation areas protect the soil and ensure the well-being of human populations.

In addition to this, some of the houses that are on the Cota neighborhood were in risk area and, therefore, had a chance to collapse. One of the factors that could lead the houses to collapse is rainfall.

In conclusion, those families should be relocated, but the conditions of this transition should be better.

# How Can Groups of Voluntary Work Help People Become More Engaged in Sustainability?

*Júlia Faria de Oliveira*

**I**n my opinion, voluntary work can help a place become more sustainable. However, what I saw at “Cotas” was voluntary work helping people to see how moving from their houses could help nature and themselves. And that was what made me think voluntary work is necessary and very helpful.

At “Cotas” we heard about three groups of voluntary work and a State aid group. This State aid group had the objective of informing the Cotas community why they had to get out of where they were living. In this process, they explain the importance of protecting the environment, and warn them that they could be in a risk area and facing the danger of a landslide. Finally, when the community “agrees” with this, they’ve got to go to spaces created by this company and leave their houses.

On the other hand, the voluntary work groups focus on the issues in the Cotas community. They were divided in three groups that helped

people that were feeling unhappy about their situation. These people who work at these institutions made the community inhabitants know more about culture and brought life to the community. One of them taught more about technology to those who lived there, creating short films. They even created a news radio. What’s more, the Cota dwellers said in the interviews that those workers helped them a lot.

All of these factors helped to make me understand that the State aid group did not live up to its promises. They just publish their good deeds to society and then, behind the news, put an end to the expectations of many young and old people who have not even realized that their life will no longer have much meaning. I think that those people that are involved in the voluntary work just want to see the people in the community, their friends and family happy after all the problems and difficulties they have faced.

# How Can We Preserve Natural Habitats and Develop at the Same Time?

Natália Tito

**I**n my opinion, we can preserve natural habitats and develop at the same time through sustainable development in which natural resources are not exploited but partly preserved and restored.

Sustainability ensures that future generations can live in a more balanced world where technology and social development can evolve with harmony with ecosystems and without harming the future of the planet. The quality of life we dream for our children and grandchildren will only be achieved if we embrace sustainability in our daily lives as from today.

Sustainable development is the best option for our planet because if we continue deforesting and exploiting the environment without limits, at one point it will end.

Some successful approaches to improving quality of life is what we saw in Cubatão, a city in the state of São Paulo, Brazil that we visited in our field trip. *The Serra do Mar Socio-Environmental Recovery Program*, carried out by the state, has provided basic sanitation and water treatment for 100% of the population. They have also relocated residents from risk areas to prevent landslides, they have increased environmental preservation areas, they have enhanced control of deforestation and hunting and they have many other projects, like the use of degradable fuel in industries.

Working together we will achieve a world with a future without the risk of an end and the environment will hopefully last and provide for a long time.

## II

# Sustainability and the Environment

# What Is Sustainability and How It Can Help the Environment?

*Clara Paranhos*

**N**ature has been a major force on our planet since before we even existed. Had it not, we would not even be alive. Unfortunately, we have been taking it for granted and there is not a second Earth. Our greatest endeavor is to develop the capacity of humans to coexist with nature or, in other words, sustainable development, which meets the needs of the present without compromising the ability of future generations to meet their own needs.

It is not as complicated as it seems. It takes minimum effort and the results could save our entire planet from an irreversible crisis. Sustainable products cause immeasurably less damage to the environment than regular products and can be found very easily.

The city of Cubatão, located in Brazil, was for a long time known as the world's most polluted city due to its industries releasing chemicals into the environment for many years, causing illnesses and the definite extinction of many species. However, as soon as the population began to realize all the damage the environment was suffering, changes started to be made and the situation began to reverse. This is an example of how sustainability could save us all.

To sum up, if we still want to prevent our world from dying, we have to become more sustainable and adopt more efficient measures, reducing the deadly amount of chemicals that are frequently contaminating the environment and repairing what we have damaged, reforesting areas we destroyed and saving the remaining species.

# Why Is Sustainable Development So Often Associated with Protecting the Environment?

*Tomás Vilela*

**C**urrently, many people commenced caring and trying to protect the environment, mainly in the 21<sup>st</sup> century. This is because human population has been growing rapidly and development has been happening remarkably quickly, thus revealing damaging consequences.

Many factories are largely responsible for a huge percentage of the world's pollution in many different ways. As a result, many people are seriously worried about the consequences of this pollution, so they started to consider ways to reduce

this grave problem. This is where sustainable development enters.

Sustainable development refers to ways to maintain the advancement of the society without being harmful. For that reason, many companies, like "Unipar", which was visited by my school during our field trip to the city of Cubatão, are trying to change their factory production to a more sustainable process, protecting the environment.

We must always remember that we have only one planet to call home, the Earth. Consequently, it is our obligation to always keep it safe, protected and healthy.

# The Need to Find Other Ways of Producing Essential Materials

*Gustavo Jacobsberg*

**I**t is a fact universally acknowledged that basically all the materials and products we buy pollute the atmosphere or kill something when they go into production, reason for which it is vitally important to find other ways of making them.

On the one hand, some materials may now be essential to our society, such as a cellphone or petroleum. We all know that we need them, but we cannot let them cause harm to us and to our planet. They were meant to be useful and innocuous, which leads us to the obligation and necessity to research into new ways of obtaining them.

On the other hand, although these changes would be good for the environment, the companies

continue ignoring and pretending they are not making an impact on the ecosystems. One such company is Carbocloro in the city of Cubatão, which says that the environment is their best friend, whereas they are obviously throwing a lot of carbon dioxide into the atmosphere. They do so because they neither want to have any losses nor stop having profit for a period of time.

I do understand that maybe some things are the way they are and it may be impossible to find other ways of producing them. However, certainly some have feasible solutions and I think it is worth spending time and money to find them. As long as we do, it will all be really beneficial to our environment and our society.



# Is It Just a Mirage?

*Maria Eduarda do Amaral Grassano*

Whoever reads newspapers, watches TV or holds accounts on social media networks is probably familiar with an enormous number of vehicles commenting on global warming or air pollution. Their quotidian speech, however, is full of empty words and pseudo-solutions. Still, mediatic vehicles are not the only ones which are investing their time and raising their voice to call attention to this content.

In most recent years, large numbers of new companies have been growing based on an ecological discourse. Those might be genuinely interested in actually saving the planet by conserving its resources for future generations. Nevertheless, the most probable reason for the change in their approach to customers (and to nature) is the major profit increase they will be able to make with it.

A clear example of this is one of the most prestigious among these “green” companies we visited in the city of Cubatão: 4Ocean. 4Ocean is a profitable organization, which claims to be selling bracelets made from recycled plastic in order to save the seven seas from the wrongly made garbage disposal. Each bracelet you buy represents a certain quantity of litter that you have helped diminishing by doing so. We, as buyers, should ask ourselves if 4Ocean really intends to help the planet by selling bracelets or if its intention is to sell bracelets as a tactic for marketing helping the planet.

Another example is Carbocloro, a known chemical industry, which produces a wide range of products that can be highly prejudicial to the environment. Yet, the company claims to be completely green, as they ensure so during daily visits from the general public. During our recent trip taken to Cubatão, we had the opportunity to engage in one of these visits. Little did we know that the information that was shared with us was completely vague and did not really resolve many of our doubts about the processes and the sustainability of the company. This unfortunately led us to see this sustainability as a sheer marketing strategy. They certainly attract many more customers by advertising an ecologically-minded business, and this is where the problem lies. The air pollution they produce is probably larger than we could eventually imagine, still, never has this data been shared with us, neither has it been shared with the public.

So, is it just a mirage? A beautiful ideal shared for maintaining our species alive on this planet, used against us, by people who only want to make huger and huger profit, to accumulate more and more capital? After all, consumers are being chronically manipulated by this kind of companies, believing that, when buying their merchandise, they are favoring the environment, while, in reality, they are destroying it even more.

# How Have We Humans Disconnected Ourselves from Nature?

*Laura Lordy Costa Cicerone*

**A**t the end of the 19th century, São Paulo and other Brazilian states began their industrialization process building thousands of factories and industries as well as introducing machines without thinking about the future impacts of the pollution generated by them. That was when men began to disconnect themselves from nature.

In our school trip, we went to the Santos Port and there we learned that more than fifteen species of fish and other creatures have died out due to the pollution caused by oil leakage. We also learned that “água de lastro”, which is released from ships coming from other seas and containing alien ecosystems, can dramatically alter the local biome and cause an enormous environmental impact. This clearly shows us how distant men are from nature because

we use it to satisfy our own selfish personal needs instead of working in harmony with it.

Another example of this disconnection could be seen in Cubatão, where we visited an industry called Carbocloro, which produces chlorine, soda and derivatives. Although they consider themselves totally sustainable, they are far from that. We could realise that because, among other objectionable things, they use quality animal testing.

Considering all that was said, we can conclude that nowadays it seems we are getting farther and farther from nature every day. On the other hand, some people are becoming more aware of the consequences of their acts, so I think that, in a way, men are trying to reconnect themselves with nature. There is still a great deal to be worked on, yet.

# Who Do You Think Is Responsible for Introducing Sustainability?

*Júlia Paliare*

**S**ustainability is an important theme which is much commented in our days. Throughout these years, this theme has become more popular. More people are paying attention to their daily actions, taking more care of nature.

If you search on the Internet, you will see that people are creating more forms to preserve nature in their little everyday actions. An example of this is the use of biodegradable products, which are very common today. As well as this, people have been making an effort to save water, stop using or diminishing resources from animals. There are many more actions that are simple to perform,

whose main objective is to preserve natural resources.

There are a lot of examples to explain sustainability, but this is not the topic of this text. What is really important, what this text aims to do is to question who is responsible for introducing and promoting sustainability. To answer this question, you must ask yourself. What can you do to preserve nature and make this world more sustainable?

If you really want a better place to live, you don't have to do so much, but pay more attention to your habits and your little actions. In other words, we don't need a "special" person to introduce and promote sustainability. Everyone is responsible for this.

# How Is technology Helping to Introduce Different Ways of Sustainability?

*Caio Atchabahian*

**S**ustainability consists of supplying the humans needs without compromising the future generations. In our society a lot of companies claim to be sustainable, but some actions and facts prove the contrary. So, sustainability is something that is very difficult to obtain, but we can try to use different ways, like technology to help in this theme.

First of all, I think that many companies would like to follow a sustainable idea, but that is not so simple. We can use technology to help with this, but how? Basically, the function of technology is to make things easier, more accessible and facilitate the research and studies about the environmental problems. There are a series of processes that may increase the efficiency and consequently im-

pact directly on the sustainability. For example, in the field trip, we visited a company called Carbocloro. They labeled themselves sustainable, but in practice they go into contradiction.

In contrast, we can say that with the industrialization of our world, we all need more machines and other things and that we have to use the natural resources to supply the needs of this “new world”.

In conclusion, if we take all of this into consideration, I really think that technology could bring harm to our environment and consequently to sustainability. However, if we analyze other points, we can conclude that technology could make a lot of difficult processes easier and more efficient, so with the help of technology, sustainability can be put into practice.

# What Is the Intention of the Sustainable Image of Clabocloro's Industry?

*Isadora Cunha*

**I**n my opinion, the intention of the sustainable image of Carbocloro's industry is to show people that they are the best and care about the environment unlike other companies. However, I don't think that they are as good as they say. I believe they hide all the bad things about the industry.

First of all, they don't like to be judged or questioned, so I conclude that they are indoctrinators, that is, the process of inculcating ideas, attitudes, cognitive strategies or a professional methodology. Furthermore, that turns out to be an obvious reason, because it shows that the intention is to pass on this doctrine to everyone.

An example of this is the fact that they kept telling us that they have green areas and animals inside the industry just to undercover their bad acts to the environment. In fact, they've done an advertising video and every time that visitors come to the industry, they start the presentation with this video.

In conclusion, I feel that the sustainable image around Carbocloro's industry exists because they have to transmit a good image of this company to the society and, indeed, they do so. Yet, knowing that it's all in order to have a better image than other industries, makes me uncomfortable because they're lying and fooling all the society.

# What Are the Impacts of Hydropower Industries to the Environment?

*João Pedro Capobianco*

**M**ost electric power in Brazil is provided by the use of hydropower. The problem of this is the large environmental impacts that the hydropower facilities cause. Even though they do not pollute the water or air, the constructions that are required can affect a lot the local biodiversity.

Of course, energy is important for a country, but when it starts to affect other things, like nature, we need to get worried about it. The construction of hydropower facilities, such as a water reservoir, can cover an extensive natural area, and can have several impacts like obstructing a fish

migration or destroying a lot of animal habitats.

Besides that, the industrial constructions bring a lot of social impacts too. It's true they open a lot of job opportunities, but they destroy local communities and make other jobs unfeasible when they affect the environment.

In conclusion, even though I agree that electric power is really important to Brazil, I think that we need to understand that nature is important as well. It is essential that we find a way to reconcile these two things and try to make the industrial advances profitable and sustainable.

# How Can Technology Help with the Problem of Pollution in “Cubatão” in a Sustainable Way?

*Karina Simone Fischer*

**M**ost people think that technology just brings harmful results to our planet, a lot of them involving the growth of pollution and, as a consequence, doing harm to our health and environment. But after visiting Cubatão, which is considered one of the most polluted places in the world, we see that technology could, in a way, help this town to improve the present situation.

Nowadays, with this major problem that pollution brings us, and which does not necessarily and directly affect us, society is beginning to take action about it. After a lot of studies, scientists discovered that technology brings us a lot of bad consequences, but on the other hand, it can be used as well in a good way to help clean pollution.

During our field trip, we had the opportunity to visit the Carbocloro industry, which has a really nice relationship with the environment. “Carbocloro” is one of the few industries which cares about nature and knows that what they produce can affect us in a bad way. Because of this, when producing their gases and fuel burns, they do their best to find a sustainable solution, which does not affect the environment and does not stop

them from producing its material. After all, whether we want it or not, what “Carbocloro” does is something important for the development of the town.

In my opinion, being aware of what is going on today, how much pollution we create and how much it will affect us in the future is very important. Besides, technology helps to reduce industries, finding sustainable ways to manufacture material. It also helps us know about these problems through the media, making more people aware that everyone needs to participate and save the environment. Many NGOs and projects have already been created to help the environment, by cleaning the sea or recycling.

To conclude, we can see that industries and technology, despite having many negative sides, such as bringing a lot of pollution, can decrease this number of pollutants that society makes. When used in a certain way and with awareness, technology can help us in this process of a “green world”, creating a more sustainable way that does not harm the ecosystem or the environment. Therefore, society can evolve and not create so much pollution anymore.

# How Long Does Something Have to Last to Become Sustainable?

*Maria Clara Meira de V. Alves*

**W**e are living today in a society that doesn't care much about throwing trash in the streets, but what these people don't know is the impact that this has on our environment. Nowadays, everywhere we go there is a lot of trash. Every product that we consume takes a while to be recycled and, if not recycled correctly, it will damage the environment we live in.

Without human intervention (like deforestation, pollution etc.) nature would have no waste. Our planet would be better, with more trees, more animals, without pollution, but that's not what we're seeing today. This garbage in the streets will take longer to be retrieved and recycled as they will be dirty and in a bad condition for recycling.

Many of these products we throw away daily across the world, if we fail to recycle them properly, may harm the environment for thousands of years. This waste left in nature endangers the survival of thousands of animal species and intoxicates the food chain, of which humans are part. All of these products take some time to be recycled and not damage our environment anymore. For example, the chewing gum takes 5 years to be recycled, a cigarette takes between 1 and 10 years to be recycled, and paper takes from 8 months to 1 year to be recycled.

Thinking about it and how everything we do or consume will harm our environment in some way, I think that we should all take more care of our trash because someday in the future all this trash is going to harm our planet and do worse things.



# Can We Have Sustainable Energy Without Harming the Environment?

*Pedro Monteleone Robin*

**I**n my opinion, with the uncountable times the term sustainable is being said, the idea of energy production without harming the environment is mentioned too, which is a misleading advertising.

To start with, one possible alternative is the wind farm energy. Even when they are not so productive, they degrade the environment by disturbing birds and bats, which usually crash into them. Another very used power plant in these days are the hydroelectrics, which harm the environment, affecting the water animals, making it impossible for them to follow their usual course in water. Every

clean energy source demands a great devastated area to be implemented.

According to the Union of Concerned Scientists, this impact caused in the environment is not a reason not to implement this clean energy sustainable plan. The reason for this is that these impacts can be regulated.

Concluding, the matter of this issue is not to regulate impacts caused in the environment. On the contrary, it is to create other ways not to cause damage to where we live, but to create a possibility to be completely sustainable and follow the meaning of this word, creating a society that does not harm the planet.

# How Can the Sustainability of All Plants Be Better?

*Rafael Pellegrini Martins*

**N**owadays, the number of plants is going up so quickly and the pollution released too. Another important fact is the impact that society causes. The industries have some ways to improve the environmental sustainability and the population can help.

First of all, I think that if the society knew about the pollution released to consume only one product, the population would become aware about that and a lot of people would do something. In an interview that I did in a poor neighborhood, a lot of the interviewed people didn't recycle the trash and didn't care. In my opinion, it is impossible to make the

sustainability of the plants better without everyone's contribution.

Furthermore, if the plants reduced the use of polluting factors such as coal, and began using sustainable energy, the pollution would decrease. Another factor that reduces sustainability is that the plants have been constructed improperly and in inappropriate places, invading the environment.

To sum up, even if the situation is bad, it isn't irreversible. If the industrial plants try to use recyclable materials and renewable energy and move to areas that they are not going to endanger the environment, their level of sustainability will be so much better.

# How Can We Make the Sustainability of the Industrial Plants Better?

*Rafael Aguiar Sanchez*

**C**oncerns about how industry impacts the environment are growing. Because of this, it's becoming very important to use new strategies that will help to improve the sustainability of all the plants. Making small changes can have a positive effect on your factory operation, you can begin to plan and make these changes to recognize any deficiencies or efficiency that you identified on your plant.

One of the best ways to improve the sustainability of a factory operation is to use renewable energy, power sources like wind, solar, hydro, or biomass. These are completely clean and, in most cases, can reduce costs a lot, making the plant more sustainable and cutting some big costs of electric energy, which helps in the environment of the factory, turning it better.

Another effective way of improving sustainability is removing

waste and it's important to review a factory process and remove any factors that are making you produce unnecessary products. If you make products that are unnecessary, there will be a big loss of money and crucial time which could be used to produce products of your own interest.

Producing clean energy and renewable sources is just the first step to achieve a new sustainable model, construction and operations of all plants.

The main goal of this discussion about the environment is to support the protection of the environment throughout the levels of model, construction and operation of our plants, reducing impacts and developing the best support to the environment of the plant as possible, reducing the costs and using renewable resources. This way the sustainability of the plants will be much better.

# How Can We Make the Sustainability of All the Plants Better?

*Henrique Barbosa*

**T**he theme of sustainable industry can have massive impact on us and make a difference globally, so it's very important. Sustainability can also be a way to reduce production costs and the final value of products and, especially, to fortify the brand. The relationship between innovation and sustainability is the balance between economic and environmental aspects.

Having a sustainable industry has several advantages, such as preserving the environment and collaborating with nature, but this requires knowledge about the theme and commitment. The big challenge is to

include sustainable attitudes in our daily lives and if we do this, the advantages can be unlimited.

Another advantage of having sustainable industry is positive publicity because it is very rare to have this nowadays and the industry may grow a lot. Finally, many people think that being sustainable will cost more and maybe this is true in the short run, but in the long run the values are reversed.

In conclusion, the idea of getting a sustainable industry is great, but it needs commitment to succeed in the future. Therefore, we have to work to achieve this because it is essential.

# How Can We Make the Sustainability of All the Plants Better?

*Kim Cortada Lotito*

**I**n my opinion, for industries to become more sustainable we have to create another system. The philosophy of capitalism only thinks of making people rich and does not care about anything else, mainly the environment.

Capitalism makes the industries hide data from the population because they do not want to lose financial support for advertising and consumers. An example of this is how “Carbochloro” tried to pass on the image that they are sustainable, but we couldn’t take pictures inside the factory. Another example is that the workers didn’t answer us when we

asked for some data. The same happened in our visit to “Sabesp”.

This is a problem for society because it will not know how much the industry pollutes. This shows we will never become more sustainable because we will never know the severity of the problem. In addition, they will want to earn more, disregarding the environment and polluting more and more.

My point is not to end all industries, but to educate people to stop thinking that only money matters. We need to think about the environment because this is where we live and we need to put pressure on the industry and the state as they are ruining our house.

# Caring about Our Planet

*Luiza Rodrigues de Mendonça*

**A**s we all know, we only have one Earth. There is no plan B or even C. Yet, our development system is working in a really bad way. We are overexploiting things from nature and overproducing a great number of products that have an end, when they should be reused, in a planet that is finite, where things are not forever. It is so bad that we need 5 more planets to meet the needs of humans (“The Story of Stuff”). With the intention of doing a greater good we must reforest Amazon rainforest, do our part as Brazilians, mostly in the Serra do Mar area because as students, in the field trip to Cubatão, we saw how we destroyed this rainforest.

First of all, as living beings, we depend on nature. It provides all kinds of natural resources for all the things that we use daily, so we must take care if we want our phones, beds, tables, computers, books, and other things. Beyond that, nature allows us to live, plants produce O2 and makes

it possible to breathe, animals and vegetables nourish us. All of this is nature and it was not an accident the use of the term “mother nature”. As a mom, it takes care of us.

In addition, our planet is unique, there is no chance to start over. If we use all the resources, we will die very soon. For that reason, we should invest not only on reforesting the Amazon rainforest, but also on raising awareness about the need of giving nature time to recover, to reproduce the products that society needs (“Biologia - Cesar Sezar Caldini”).

Finally, after all the scientific arguments, there is one more important. Nature made us, caring of it is the symbol that we are learning not to be selfish and greedy. Taking care about something else beyond us is, in my opinion, one very important human value.

Therefore, it is our duty to do our part at caring about our planet and reforesting the Amazon rainforest at Serra do Mar.

# Is It Possible to Have Total Sustainability Nowadays?

*Isabela Grinberg*

**A**ccording to the Cambridge dictionary, sustainability is the quality of causing little or no damage to the environment and therefore nature being able to continue existing for a long time. The negative impacts that human beings cause in nature are becoming increasingly evident, that is why nowadays is not possible to achieve total sustainability, although there are some ways for the beginning.

It is evident that over time, people began to become increasingly dependent on natural resources, like, water, trees, wind and soil. In the past, people had no regard for nature and thought their resources would never end; therefore, today many people suffer from the precariousness of those same resources. For this reason, sustainability is increasingly creating credibility, and now, at least a portion of the population is aware that nature needs to be taken care of, knowing that nature will never get back to what it was before.

From research conducted on the site "Our World in Data", the population growth went from 1 billion in 1800 to almost 8 billion in 2019. This is an impactful information and if the population continues with this growth rate, nature will not be able to provide the necessary resources for survival of human being. That is why the concept of total sustainability is incompatible with the human beings' reality.

Also, since the major countries are in the developed world and in there, people have very easy access to natural resources, it is compatible that they will have a mindset that nature will always serve them. Nowadays, some of those thoughts are changing, but most of them remain the same, which affects the desire of total sustainability.

Having in mind that nature will never return to what it was before, at least the two things that human beings need to do, so that impacts are mitigated, it is start preserving immediately and change the current population growth rate.

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# Seaports and Their Impacts

Elise Schmitz Boccia

Usually, when people think of seaports, they just picture the good aspects, for example transporting goods and moving the economy. On the other hand, even though we do not often see it, seaports cause a lot of harm to the environment and the animals who live in it, due to the noise, leaks and the destruction it causes.

The most harmful aspect of building a seaport is that it destroys the ecosystems that were in the coast before. For instance, Santos' seaport was built at the expense of a mangrove forest, "extremely productive ecosystems that provide numerous good and services both to the marine environment and people" (WWF). This ecosystem also serves as a nursery for fish and it protects the coast from hurricanes and sediments. But now, Santos' mangrove cannot do that anymore, since it was overlapped by a harbor.

In addition, occasional oil leaks are inevitable in oil terminals. Oil spills are hard to avoid in harbors

and they cause an enormous impact in the environment. When oil from spills comes in contact with marine species it can compromise entire food chains and marine ecosystems, including fish and smaller organisms that are the essential link in the global food chain, according to "OMPE" and "ThoughtCo."

Finally, boats that dock in the port produce noise pollution. Even if it doesn't seem to be important, noise produced by boats can harm marine species that depend on sound to survive. A recent research done by "nature research" shows that anthropogenic noise can lead to reduced responsiveness to risk and higher mortality.

In view of the arguments above, I would argue that seaports can cause much more environmental impacts than we anticipate. That way, we should try to find more sustainable ways of transporting our goods or try to minimize to the maximum the impacts seaports make every day.

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# Does Our Daily Consumerism of Material Goods Affect the Earth's Health?

*Giulia Mazzini Tonin*

**I**t is a fact that through the years our urge to buy new disposable items has grown along with global warming and other issues that affect the Earth. A study conducted by the OMM (Organização Meteorológica Mundial) shows that, since the industrial revolution, the mass production led to an overproduction where the industries started to make material goods in function of the consumers demand. There has never been this amount of production since this system has been installed and our Planet is the one suffering the consequences.

Have you ever wondered where all the things we buy go to when we trash them out? First, they go to garbage bins, then they are thrown into dumping grounds. In there, the people responsible for managing the trash can burn it, distributing a lot of pollution to the air or just accumulating it, causing an overflow. Overflowing can cause bad odors, an ideal place for bacteria to live in, which will increase our risks of contracting diseases, since a lot of animals thrive into trash bins, pollute the water and then get in contact with us. I fear that nowadays the situation is the one described above. I wonder how it will be

in 10 years if we continue to consume the way we are.

Another point that can show how our consumerism is destroying our home, is the natural resources withdrawal. The WRI's (World Resources Institute) analysis showed that last year, the world lost about 30 million acres of forest, but the number has increased this year to almost 50%. With the deforestation, a lot of species of animals and plants are extinct.

Consumerism is a way that capitalists found to earn money, by promising people a "good life" when they buy a different item. So many do not understand how we could still live this "good life" without consuming as much, so I have an answer for them. If we are constantly destroying our own home, we will not even have where to get our resources from, neither a Planet to live in order to have this fake "good life". Consuming this much, we are going to end our own home.

Therefore, due to our uncontrollable consumerism of material goods, the Earth is suffering more than ever, and the only ones able to do something about it are us. In order to do that, we need to reduce our consumerism and save our only home.

# Do Factories Affect Our Planet?

*Mariana Facci Mendes*

**F**actories all over the world share one huge characteristic: they all cause damage to the environment. Factories take a huge part of the blame for a large percentage of the pollution that has caused climate change.

Carbocloro UNIPAR, located in the city of Cubatão (São Paulo) in Brazil, is a company that operates in the chlorine soda sector. They claim to be an improved chemical factory that does not cause damage to the environment, having as a goal the idea of showing that chemical factories are not the enemy. However, factories of any kind are one of the environment's biggest enemies. Toxic materials and gases are burned and released into the atmosphere, having a direct impact on the temperature of the planet, causing global warming. The website "Field.Org.Uk" states that those same toxic gases can cause several types of illnesses, diseases and conditions, such as lung cancer, heart disease, and many more.

Factories are also a contributor to water pollution: "the illegal dumping of contaminated water, gases, chemicals, heavy metals or radioactive materials into major waterways cause damage to marine life and the environment" (Field.Org.Uk). Not all factories are responsible for this, but factories located in less regulated parts of the planet might

dump their toxic waste into the oceans or rivers to get rid of it a lot cheaper. The industrial waste can also be thrown into landfills, destroying the fertility of the soil, decreasing the productivity of crops and leading to contamination of food that we may later consume.

We are in constant exposure to air pollution, water pollution and soil pollution due to factories, but we also face an increasing risk of being victim of illness and disease. According to WHO (World Health Organization), 5% of those who are diagnosed with lung cancer will be due to extended exposure to pollution.

Factories can be directly blamed for destroying certain areas of nature, as well. Our reliance on natural resources means that we are endangering many species as we search for it. We tore down forests for wood, which takes away the natural habitat for animals and other wildlife.

Because of all the reasons listed above, we are living in a world of climate change, contaminated water and food, diseases and extinction of many species of animals. All of that damage will only increase if we do not reduce how much damage we are causing to our own planet. In spite of the efforts of governments around the globe in reducing the amount of pollution that these factories release into the atmosphere, there is yet much we must change.

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# Is It Possible for Any Industry to Have a Sustainable Operation?

Tomás Verdini

**S**ustainability and environmental preservation are increasingly discussed topics today. More and more people have realized that even if they individually change habits and actions to reduce the environmental impact and preserve natural resources, a collective reaction is necessary to have sustainable development and not devastate the environment. Many industries today are having trouble producing their raw materials while maintaining sustainable operations. But sustainability can indeed be employed at various points in the routine of any industry, provided there is an interest in doing good and returning to nature what is derived from it.

Measures taken in everyday industry make it more sustainable. And more and more companies are realizing this and implementing actions that lessen their environmental impact. But some industries are still unmoving to be sustainable. Carbocloro is an example of an industry that is not doing much to soften its environmental impacts; it just tries to pass as “transparent” and sustainable image

by having some animals around the ground and an aquarium with treated water, but with no relation to the work done in the industry.

Environmentally conscious companies are those that really care about the effects they have on the environment in which they are located and which try to reverse some scenarios by improving industrial processes. An example of how this behavior is possible is at Döhler, a Joinville-based textile company that has found ways to become more sustainable and reduce its environmental impact. The company’s energy matrix, for example, is 75% composed of natural gas, which is considered a clean input. The other 25% is due to thermal energy from biomass and waste generated at the company, such as weaving and spinning cleaning. (Dohler website)

To sum up, I believe it is possible to employ sustainability in the operation of industries. They just need to be interested in it, that is, they need to stop thinking hard about profit and money and start doing more for the environment.

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# Is Carbocloro Really Sustainable?

*Daniel Abramoff*

**I**n our field trip, we visited Carbocloro in Cubatão, a Brazilian chemical company manufacturer of chlorine, soda and derivatives for industrial uses.

Most people that visit Carbocloro in Cubatão (a city in the state of São Paulo, Brazil) think that this industry does not cause atrocious effects to the environment. However, Carbocloro degrades the environment in many ways.

To start with, Carbocloro locks animals to show an image of sustainable development, but in reality they are destroying the environment, because those animals, in those conditions are not going to develop, as that is not their natural habitat.

In addition to that, Carbocloro does not make good use of equipment because using those products, they kill animals. Most of them are

endangered, and if the species dies, animals would be extinct. The animals are the blue parrot, the capybara and the yellow alligator.

Furthermore, Carbocloro in Cubatão is the industry that pollutes the air the most. Seven hundred kilograms of methane gas are liberated every week by Carbocloro, according to the information on the site of Associação Brasileira da Indústria de Álcalis, Cloro e Derivados – the Brazilian Association of the chlor-alkali industry. This pollution causes serious damages to people that live with diseases related to the contamination of the air, like measles, asthma and bronchitis.

In conclusion, I think that this shows us how a company that creates an image of sustainable development actually degrades the environment.

# Is it possible to Have Sustainable Development in a Capitalist Society?

*Manuela Magalhães*

A capitalist society values the legitimacy of private properties and the unrestricted freedom of commerce and industry, with the main purpose of acquiring profit. So, as long as we live in a society like that, we will never be able to have sustainable development.

I think it's very important for us to think and wonder about companies that claim to be sustainable, when in fact they are just another capitalist company that only thinks of using as much natural resources as it can to make money.

An example of a company that, in my opinion, just uses this brand of 'sustainability' to raise their status, is Carbocloro (a chemical company in São Paulo, a provider of chlorine and derivatives for industrial use), that we visited in Santos. They say all those things to make us believe they really care about nature and they want the world to be a better place, but they are very hypocritical, because at the same time, they say that they produce many

chemical components that we know destroy the environment.

In addition, they hid a lot of information from us, every time we asked where the waste produced there goes. They changed the subject and didn't answer the question correctly. That's because it wouldn't be good for the "sustainability" brand if we knew where the waste goes to.

I know I'm being a little pessimistic because I know it is very important and it would be very good for our society if big companies thought more about the future of our planet. But what happens is even worse than what we saw, as these companies use this cause, that is so serious just to "boost their morale".

Of course, there must be some companies in the world that are really concerned about the environment and sustainability. What I am saying is that this is very rare since the main objective of the capitalist companies is to take the most out of our natural resources.

# III

# Sustainability and Development

# Why Do We Need to Become Sustainable?

*Felipe Cosso*

**O**ur current lifestyle is definitely not sustainable, and it is compromising the only place where life is known to be possible to exist, this planet, Earth, besides ourselves. We need to prevent the further destruction of this world and the fall of human civilization.

The way we produce, consume and dispose of the products we use is not cyclical. It is linear, which means we will eventually not be able to sustain that system anymore. Knowing that the raw materials needed, rather sooner than later, will not be available, this will certainly cause a domino effect that will lead to the total collapse of the system and there will be no more products. That is why a cyclical system is a must-have, so that it can sustain itself.

Beyond that, the lifestyle we lead nowadays causes gigantic environmental impacts, some of which are not reversible anymore. The pollution levels we throw into the rivers

are so high that water is becoming a non-renewable resource. Every day, massive amounts of pollutants are disposed into the air, increasing health problems and aggravating the global warming situation, which is already extremely severe. In the city of Cubatão, for example, when the industries there were at full throttle, hospitals were crowded all the time, due to the number of people developing respiratory complications caused by the dense atmospheric pollution in the region. Efficient measures had to be taken to considerably alter that.

Taking into account all that was said, and as an example what was done in Cubatão, we need to minimize pollution the maximum possible, find a way to reuse the products we throw away efficiently and do not dispose of product unless they really become unusable and past the point of recycling, or else humanity's doom will be it.

# How to Progress Without Destroying?

*Clara Smith*

**T**hroughout history, it seems that not all inhabitants of planet Earth have completely understood that human existence depends on the preservation of its vital natural resources. Most industries value the pursuit of money rather than the survival of their own home, which is ironically also the source of all their huge profit.

In the 1950s, an accelerated process of industrialization began in Cubatão, near São Paulo. Until then, the area was a green paradise. In 1960s, Cubatão already had eighteen major industries. Their construction was improper and invasive to the environment. Mortality rates increased and life expectancy decreased. Along with that, consumption rose, and the population was seriously harmed. It

reached a point where the city became known as the “city of death”.

Among the changes that are already being enforced to reverse this situation witnessed in our field trip are the current use of different alternative energies, the regular recycling practices, the frequent reprocessing of reusable waste and the continued preservation of green areas.

In Cubatão, as well as all over the world, the most serious challenge is to continue growing without harming the environment. For this to happen, in my opinion, it will be necessary, besides adopting sustainable practices and responsible innovations, as the ones seen in Cubatão, to raise the consciousness of the population as citizens, so that each one can do their part, ensuring a better future for the next generations.



# How Can We Achieve Sustainable Development in Brazil?

*João Pedro Santi Hohagen*

**S**ustainable development is a concept designed to refer to the environment and the conservation of natural resources. Sustainable development means the ability to use nature's resources and assets without compromising the availability of these elements for future generations. This means adopting a pattern of consumption and use of raw materials extracted from nature so as not to affect the future of humanity, combining economic development with environmental responsibility.

We know that there are non-renewable natural resources, that is, those that cannot be renewed naturally or by human intervention, such

as oil and minerals, and that there are also renewable natural resources.

Also, measures must be taken to conserve these resources, not only to keep them available in the future, but also to reduce or eliminate the environmental impacts generated by predatory exploitation.

So, what we can say about sustainable development in Brazil and in the world is that, both here and there, much remains to be done, many actions must be taken, if we want our life to continue and more than that, the next generations can develop and build a new future that may be better than the one we have so far. Preserve, Reuse, Reuse, Renew.

# How Is Technology Helping to Introduce Different Ways of Sustainability?

*Gabriel Machado Frossard*

**F**irstly, it's evident that in recent years people have started to look for sustainable resources and the term "sustainability" is popular nowadays. Therefore, companies or other entrepreneurs are working hard to make products and actions more sustainable for the environment. One of the ways to transform our society is technology, which has brought many good changes and still does.

However, many people don't believe that technology can help with the environmental problems because the majority of products last too short, no matter how technological they are. Yet we know that our inventions are changing our relationships and the way we see the world.

With a cellphone any person can create a site to raise money for an ecological campaign or denounce projects and actions that threaten

an ecosystem. An example of this is what has recently happened during the illegal burning period in the Amazon forest in Brazil.

Furthermore, it was thanks to technological development that scientists invented new ways to generate energy from renewable resources. The five main types of renewable energy sources are: solar, biomass, which uses organic mass and even landfill waste to create energy and fuels, wind, geothermal, which uses the Earth heat, and hydropower. Consequently, with this type of renewable energy we are reducing greenhouse gas emissions that damage the atmosphere.

To sum up, technology is a way to reduce the human impacts in our planet and maybe, in the future, it will be the way to reverse the delicate ecological situation that we are currently suffering.

# How Can We Make Hydroelectric Power Plants Sustainable?

*Carolina D'Ambrosio Nigro*

**N**owadays, the most responsible action that causes pollution and losses to the environment is the extraction of energy in order to attend human necessities. People depend on energy to survive, which means that almost everything that we consume is produced with energy. However, this extraction is compromising the natural conditions of the Earth, and it will continue doing so even more.

Since the beginning of capitalism, which has possibly started with mercantilism, and then intensified with the first industrial revolution, human greed has always been prioritized. Even knowing that the natural resources would be finished someday far away (but not so much), our ancestors chose to make money instead of saving the planet. Now, we must create some ideas with a view to keeping using energy, but with minor damage to the climate and to other factors also important for our future existence.

In Cubatão, there are a lot of hydroelectric power plants with the intention to fuel some other basic industries. This kind of power plant is not as pollutant as fossil energy (produced by crude oil) or even as nuclear energy; however, it does pollute a lot while it is being built. Considerable areas have been flooded in order to install hydroelectric plants, and in some cases, the government must interfere to remove or relocate the local communities.

There are some ways to soften the future hydroelectric damages to the environment. Even if it is expensive in the present, in the long term it could dramatically decrease some environmental issues. Some companies have already adopted some methods and among them there is an effective machine which produces its own power supply by solar energy or by the waste generated in the plant.

# How Greed Affects Our Current Crisis and How We Can Fight It and Help to Change It?

*Dora Duprat Martini*

**A**s indicated in a Forbes article, greed begins in the neurochemistry of the brain. It is fueled by a hormone called dopamine, which is shot in our system when an anticipation of a reward occurs. This generates a sensation of happiness, making us feel good and motivated to conquer even more than we already have (Forbes – *How greed works*). Consequently, we tend to feel “better” and superior than others because we will have more material things than others. Greed makes us feel the need to compare ourselves with other people, never feeling satisfied with our current situation. Sometimes, greed blurs our judgment of what is right or wrong, creating a worse situation that will need to be dealt with. Some of us may wonder if we can resist something that is natural and instinctive and the answer is yes, and it must be done immediately.

As an article in the newspaper stated, the key to the success of capitalism is taking and dominating greed and using it to stimulate the economic progress to make it possible to promote its own (O Estado de São Paulo: *Capitalismo e Ganância*). Thus, since greed is the interference of “pleasure” and leisure in our reasoning, it ends up tricking our reason

in believing that we need more and more, gaining more power over ourselves and increasingly sustaining Capitalism.

According to Warren Buffet, an American investor and philanthropist, “if you risk something that is important to you for something that is unimportant to you, it just does not make any sense” (Forbes- *How Greed Works*), and it is considered that this is part of the common sense of everybody. Yet, that is accurately what people are doing nowadays and even promoting it. Capitalism and consumerism are being even more encouraged despite the climate crisis that is resulting in an economic order, and it keeps increasing while people are not changing. As strange as it sounds, the main priority of most of the population is their own desires, not the safety and health of their own lives and planet, even though they know the harm that their impulsive selfish shopping spree does. Therefore, the process of making the Earth unfeasible and inhospitable for life is accelerating even more at each minute.

Some ways to avoid this acceleration are supporting companies that care and invest in our planet’s health, reducing the amount of meat consumed, avoiding the excessive use of

plastic and non recyclable materials, and even changing and trading damaging habits for less aggressive and damaging ones.

If everyone demonstrated awareness and tried just a few actions, the process of slowing down the crisis would be much faster. The progress

and support of solutions that might be viable to reverse the current situation that we are facing will only depend on how much we care more for our material goods than life and safety, not only for our generation, but also for the many generations to come. So, what do you stand for?

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# The Misconceptions Concerning Sustainable Development

*Pedro Magada*

**S**ustainable development has been one of the most “key” topics on the course of time. Specially on the 21st century, while humans have destroyed the planet so badly, some companies and governmental institutions try to create a circular economy scheme. However, this opens up for companies, such as “Carbocloro”, that do not fully understand the concept of sustainable development, spreading a false advertisement message to everyone, including schools and their own workers. After all, does sustainable development even exist?

Carbocloro, as even they say, is a sustainable company, and I honestly do not doubt that. However, things start to turn the other way when they are a “capital goods” manufacturer, which means that in the process of something getting to our home, they only represent the first step. If we take as example the video “Story of stuff”, material goods have a five-step producing process - extraction, manufacturing itself, retail, our houses and TRASH - and Carbocloro only fits in the manufacturing step. Here

is the problem: if you produce hydrochloric acid, sodium chloride, caustic soda, chlorine and dichloroethane, as Carbocloro does, you are not selling stuff to people, you are selling to another company, which will produce their product based on what was sold to them. So, having that in mind, I do not think is fair to omit facts from everyone about being a sustainable company if you only cover a small percentage of the manufacturing process, which no one guarantees that is a healthy process to the planet as a whole.

All in all, this is not just a Carbocloro’s misconception, it is all over our system. Except for the companies that deliver a product from extraction to your home in a clean way, and are based in a circular economy, everyone is either a part of the problem or not helping. What I mean by that is that if you are a manufacturer who does not cover the 5 steps (from extraction to the end) in a healthy way, you pollute or contribute to a system that is killing our planet.

After all, we either go all together, or we will actually die trying.

# Is Capitalism Sustainable?

Luana Farhat de Carvalho

**S**ustainable development is a very popular topic nowadays; everybody wants to be seen as sustainable because it *sells*. Companies all around the world claim that they are working to find a way of not destroying the environment. “Green economies” are emerging and it looks like an alternative to save our old and collapsed capitalist system. That is impossible. Capitalism and sustainable development cannot exist together because those ideas are opposites.

Taking Carbocloro, which is a huge chemical industry in the industrial park of Cubatão, as an example, it is crystal clear how factories keep on lying, saying that they are sustainable when they are actually not. While claiming that they care about the environment, Carbocloro has polluted foam on the water that is supposed to be clean (Carbocloro visitation). And that is not all of it. According to a CETESB study conducted in 1990, the emission of mercury on water by this company is one

of the biggest sources of pollution of the aquatic ecosystems because of that metal (O Estado de São Paulo). And they still sell their image as eco-friendly.

Also, capitalism is based on the mentality that you need to profit as much as possible. The whole system revolves around money and money only, on a selfish way. On the other hand, sustainable development has a big focus on the whole society. Sustainability has as its ideal keeping and preserving nature so the next generations can live in a good place, so they can eat, so they can have the basics. The capitalist system is an individualist system, which is incompatible with sustainable development.

To sum up, based on all these reasons that I can assure that capitalism cannot be sustainable because capitalism has its bases on profit and on an individualist system, which is almost the opposite of what sustainable development proposes. And even companies that says they are sustainable are not telling the truth.

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# Sustainability Under Capitalism – Taking Action

Luca Conestabile Uras

As public concern about the environment rises, industries must adapt to tranquilize its customers. “Going green” is not anything new, as seen in Patagonia’s “Don’t Buy This Jacket” campaign, which increased its sales by 40%<sup>1</sup> or Unipar Carbocloro’s “Fábrica A berta” program<sup>2</sup>, which seemed like just an attempt to divert the focus from the environmental impact<sup>3</sup> of the factory. This, of course, raises the question if being sustainable is possible under capitalism. As the “Green New Deal”, an American congress resolution shows, it is not only technologically possible<sup>4</sup>, but it could also boost US’s economy<sup>5</sup> and even tackle economic inequality<sup>7</sup>.

According to John P. Holdren<sup>4</sup>, technologist and professor at Harvard University, the goal of zero carbon emissions by 2030 proposed by the Green New Deal is not feasible. However, it is entirely possible by the midcentury, with only one condition: the shift from fossil fuel to renewable sources must start now. It is not going to be easy, but if it can be done by 2050, global warming could stay below the 1,5°C increase, the limit of how much Earth’s temperature can rise<sup>5</sup>.

Most of the critics of the Green New Deal say that the project costs too much and would destroy the United States’ economy, but would it, though? A study conducted by the Rocky Mountain Institute<sup>6</sup> showed that transitioning into clean energy would save the US 5 trillion dollars on the long run and even sustain a 2,6 times bigger American economy by 2050.

Although the Green New Deal’s biggest concern is the environment, it also plans to tackle economic inequality. As it is said in the resolution, it is not only the duty of the Federal Government to achieve zero greenhouse gas emissions but also “to create millions of good, high-wage jobs and ensure prosperity and economic security for all the people of the United States”<sup>7</sup> and with the amount of investment, public and private capital, into infrastructure and industry, this could be just the right chance to mitigate economic inequality.

In conclusion, whether people believe the Green New Deal to be achievable or even desirable, there is one thing everybody needs to agree: something needs to be done, and it should be done now. Conformism will only lead into even more avoidable suffering of humankind.

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# How Can People that Defend Sustainable Development Warn Others About the Future?

*Manuela Ferraz*

**T**his is a really hard question to answer because it's not everybody who knows how dangerous it is to keep destroying the nature. So, we have a lot of choices on how to warn others about what the world should be like.

One way to help people warn others is by protesting to call the attention of everyone around, or you could do something bigger, like actions that can change the environment and show people how men affect the environment. By doing these actions, people will see how much better it is to live in preserved nature.

Thinking about the choices, if you choose the first option, you can, for example, protest with people that work at industries that pollute a lot. Or you can get together to create postcards with written researches, numbers, data about the danger that men can bring to our society and display them in public places.

In our field trip to Cubatão we saw people making postcards or T-shirts

trying to show the problems we will have if we don't take care and preserve nature. Cubatão is a city in the state of São Paulo, Brazil. In the 1980s, Cubatão was one of the most polluted cities in the world, nicknamed "Valley of Death".

If you decide to protest, if you want to do something bigger, you can call everybody you know or post on the internet how to make the world a better place and do it yourself. And while you are making videos you can also show people what the future will be like if you keep doing these actions. In Cubatão, we saw people already reforesting Mata Atlântica destroyed by industries, and factories trying to pollute less.

In conclusion, we have alternatives to change the world, just like in Cubatão. And now the population and the government personnel are replanting trees in preserved areas and providing environmental educations in schools. And that is how we are going to change the word if we really want to.

# Is the Idea of Sustainable Development Utopian?

*Mathias Zavatto*

**S**ustainable development is an idea that was born in the end of the 20th century at a UN conference. It says that the form we explore our natural resources today is not sustainable. In a few decades the earth will collapse. Sustainable development came to fix this problem and that is why it is not utopian.

Although it is beautiful, many people believe that sustainable development is utopian because it is an idea that depends on everyone's collaboration.

Nowadays there are lots of people that are not willing to give away their comfort and stop making money in order to follow an idea that they do not even know if it will work. But on the other hand, even if it might look impossible, I strongly believe that sustainable development is not a utopian idea.

Firstly, it is a fact that the exploitation of resources is a problem and we are not near a sustainable level. So why can't we even try to make exploitation more sustainable? People will work hard to accomplish it, but

there would be a lot of gains as well: the next generations would inherit a much better world, social inequality will decrease, and ecological problems will also decrease. Therefore, there is no reason to ignore one of our biggest problems because of a minority of people that prefer to keep their comfort in profits over saving our planet Earth so let's move ourselves now.

In our field trip with our school we visited degraded areas where families used to live and public power interfered and moved them so lives would be preserved. Those neighborhoods in Cubatão (a city in the state of Sao Paulo Mata Atlântica once called Valley of Death) are now living in different areas and the region is now an environmentally protected area. Families that still live in those places called COTA 2000 have programs developed by educators to learn about mudslides for example.

In 2017, the UN gave the city the title of "symbol city for environmental recovery".

# Is It Possible to Have a Good Quality of Life and Preserve the Environment at the Same Time?

*Juliana Junqueira*

**I**s it possible to have a good quality of life and preserve the environment at the same time? This question is discussed in our day to day lives. And people have different opinions about it.

Some say that the two factors can't be together because if we want a good quality of life, we have to use resources from the environment, but these resources are not preserved because we are getting more than nature can replace.

In our field trip this year, we learned that when Cubatão started to grow as an industrial pole, the damage to the environment was very big. Water was polluted, animals were dying. We are so greedy that we do not think that what we have is enough, we always need more and more. If we keep using and abusing the environment the

way we do now, five planets will be needed to support our needs in 20 years' time, and in 50 years' time we will live in a plastic world, according to the United Nations.

On the other hand, some say that we just need to find a balance between our needs and sustainability. Society needs to understand the big problem that we have created to ourselves and then, we need to have a good quality of life with no greed and always trying to do it in a sustainable way. So, nature can be preserved, and we can live very well and guarantee a healthy planet for future generations.

In conclusion, I think that we just need to try to be less selfish and think about where we live, because without our planet nothing makes sense. Raising awareness is the first step to a long journey to repair our mess.

# Is Sustainable Development Utopian?

*Rafaela Gianfratti Nastari*

**T**here are some ways to develop that do not harm the environment, this is called sustainability. Some people really believe that sustainable development is possible, and other people think it is a utopian idea. Unfortunately, I am one of those people who believe it is a utopian idea.

Nowadays, although society in general is getting more and more worried about the future of the environment and recycling, upcycling, reducing and reusing has become crucial, we must take into consideration that a strong characteristic of men is greed. And this makes us humans want more and more: more money, more fame, more power. Men choose not to care about the environment because they only want wealth, and sustainable development, besides costing a lot, it also restricts human exploitation of nature, affecting profit.

Let's use as an example of human selfishness what happened with the city of Cubatão (a city in the state of São Paulo in the region of Baixa-

da Santista). This city is a host to oil refining, steel mills and fertilizer industries (among other types of industry), and in the 1980's was one of the most populated cities in the world. However, in the 1980's the human greed caused industries to pollute the air so much that it killed many people, and Cubatão was then called the Valley of Death. Due to the impact on the environment and the pollution, children with no brain were born, forests were killed, respiratory diseases hit many people. Then, billions of Brazilian Reals have been invested to change the situation, and 22.1 millions of Brazilian Reals were spent between 2000-2009 by SUS (Sistema Único de Saúde - Brazil's publicly funded health care system) according to an article published in 2012 at scielo.br.

In conclusion, I believe greed is stronger and this makes the idea of development impossible because men are more concerned with their own interests and benefits, regardless of others.



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