CONTRIBUTIONS OF THE CLEAN DEVELOPMENT MECHANISM TO BUSINESS GOVERNANCE, ACCORDING TO A MARKET AGENT^{1, 2}

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The materialization of the concept of sustainable development in the 1990s was a great challenge: how to put it in practice and encourage economic growth towards this direction? In that decade, it became clearer to society that the rational use of natural resources and the reduction of the impacts imposed by human activities on the environment were necessary to achieve durability. Not that this point of view did not exist before, but extreme issues have become popular over time, like the "ozone hole" and how it impacted our lives.

The Montreal Protocol was the first global action to address an environmental issue that impacted everyone on the planet. The integration of private enterprise in this area, in a fast way and with viable solutions, contributed so that results were reached even before expected. Companies learned how to win consumers over; marketing was an important conductor to stimulate the progress of new technologies over chlorofluorocarbons (CFCs), which depleted the ozone layer. It is logical that much of the success of the Montreal Protocol was due to the fact that it did not require major financial efforts from countries and companies, the technologies to replace CFCs were feasible, but nothing would have been possible without society engagement, especially consumer pressure.

The environmental issue started the last decade of the millennium under the spotlight, bringing the understanding that our actions have consequences that we need to be aware of. At the time, some studies on the Earth's average temperature increase and its relation with the concentration of greenhouse gases in the atmosphere caused great discussions in the scientific arena.

Companies also started to understand the need to preserve natural resources, and what the impacts resulting from their bad use could have on their business. One example was the concern of large soft drink companies with the water used in manufacturing their products. The more polluted the sources of water, the greater

^{1.} This text is the author's point of view as a representative of project developers during several years implementing the clean development mechanism (CDM) in Brazil (note from the editors).

^{2.} The author thanks Pedro Miquel de Almeida Gomes Antunes Sirgado for preparing box 1 (Repercussion of CDM in companies).

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the costs of treatment, and these often made a plant unviable. Oil companies realized that gas emissions resulting from manufacturing process affected the air quality of the locations where their facilities were, and this affected people's health, many of whom worked on their plants. It became increasingly clearer that all actions generated a reaction, and often this reaction could be toxic to the very development of human activities.

I once spoke about sustainability at a presentation in the city of Caxias do Sul, state of Rio Grande do Sul, for a local business association; the event was a large one, and very well organized, with some three hundred people attending. At the end, I was invited by the association's chairman to talk with him and some authorities in his room. This conversation was very interesting, because while we were talking, the chairman said:

Today, we must take more responsibility for our actions and demand that governing bodies provide more readiness and support. That time when we used to set up a company and then call the mayor to the inauguration serving game meat, as long as we paid tax, is long gone.

In a simple but direct way, what this entrepreneur made clear is that companies have a broad and integrated role with society, and that rulers are not extras, but part of the process.

The concern with the consequences of our actions was heavily present in societies during the 90s, and environmental issues gained relevance – as I wrote earlier, at that time, climate change studies were already advanced and pointed to the need for action. In this regard, the United Nations (UN) again took the lead in the search for solutions for this global problem.

The ozone layer and global warming are problems affecting the planet altogether; it does not matter whether rich or poor, aware or not, these problems have an impact on our lives and cannot be solved without people getting together. Integration is the only way to solve this, but we need to consider that responsibility over the problem is not as uniform as the impacts. Also, collaboration to solve it must be proportional to capacity and responsibility. How can we be able to create a mechanism that considers these peculiarities while at the same time fights what causes them?

I reckon that the Kyoto Protocol, by using market mechanisms, was the greatest catalyst of this new way of thinking, analyzing and acting.

Looking at Brazil and the rest of the world, this impulse to change came particularly from the Clean Development Mechanism (CDM). The frenzy generated by the CDM led to really innovative, mitigating projects, and was the sparkle for a more balanced way of thinking, not only in large companies, but also as part of initiatives of all sizes and sectors. Its tenet was interesting, with responsibilities shared

according to countries' capacities, while creating a bonus for those who were more efficient and innovative. Its mechanisms were self-powered by baselines that could change as technologies matured; this would constantly stimulate improvement. Kyoto generated an incentive and a need for knowledge. Young professionals were motivated to prepare for a professional future in a low-carbon economy. At the time, I myself was starting my professional career and the incentives were wonderful; being part of CDM projects was an opportunity to interact with multidisciplinary projects, including engineering, finance, biology and other sciences. This would open our minds to multiple possibilities. On a personal note, I can downright affirm that the chance I had to start my career inserted in CDM projects provided for a body of work and background that have opened multiple doors. In 2010, this background turned my career around and I only succeeded because these experiences prepared me not only technically but also in the way I learned to express myself.

I recall that when the Kyoto Protocol was ratified in 2005 by Russia, a flurry of conferences on this issue happened in Brazil; there were many already, but they were intensified in the period, and the number of participants was large for such conferences — involving university students looking for a professional path, self-employed professionals, executives, civil servants, people of different profiles who formed large audiences to understand what was happening. At the time, in my lectures, I liked very much to use a sentence that was a consensus among those working in the sector: "The Kyoto Protocol was just the first step towards the right direction". The fact is that the chance to speak to people, to express myself, encouraged me. I had the opportunity to publish several articles that taught me to prepare myself by studying that everything we do has multiple impacts and that we always need to look at the whole picture.

The world demands professionals who not only look at aspects of their responsibilities technically and coldly. Today, it is difficult to find a company in Brazil – and also in a large part of the world – where the word sustainability is not part of its principles or goals, and, I dare say that most companies also highlight issues related to climate change mitigation. Thus, professionals who know how to interact with these issues have their space and value.

During the first decade of the third millennium, the number of companies trying to find sustainable projects or some direction towards sustainability was large. At the time, I was a consultant in this area, and my schedule of meetings, visits and events was colossal. Brazil learned a lot from that. Firstly, the country realized that the myriad of situations enabled the qualification of professionals, who were even sent overseas. Secondly, it realized that concepts are crosscutting our society, with retail starting to think on how to explain those concepts to the final customer – I mean, the population wanted to be informed; which is the most important level for initiatives to succeed.

And this is, in my opinion, the most important point of CDM: this mechanism brought concepts about effectively being and not just appearing; established a solid logic of governance, which is environmentally and socially balanced with the economy; created a map of good practices to be followed; and became a springboard for contemporary environmental thinking in Brazil.

This clarity and logic facilitated the participation of private enterprise, and also brought the necessary security for investments favoring sustainability, and this led to a lot of new initiatives. The CDM was the basis for the creation of sustainability programs in several companies in Brazil, some programs went beyond and became institutes focused on climate change. Companies began to have something to show; the media understood people wanted to be informed and to follow this evolution. The cycle came to life, and its evolution started its own movement.

The need to standardize and compare initiatives brought about indexes and other initiatives, such as the Global Reporting Initiative (GRI), whose objective is to approach business practices and stakeholders in a clear manner; the Dow Jones Sustainability Index (DJSI) in Brazil; the Corporate Sustainability Index (ISE) of the São Paulo Stock Exchange, Commodities and Futures Exchange Paulo (BM & BOVESPA) – currently B3 –, among several others. In addition, awards have been created by means of communication, such as the $\it Epoca$ Climate Change Award, which in the following years was complemented and led to creation of the $\it Epoca$ Green Company Award, in addition to publications related exclusively to the theme. Also, the manner that carbon emissions were dealt with was used as a basis to rethink how to pursue other urgent needs, such as water and waste, for example. Remuneration ideas for environmental services were conceived.

The Global Reporting Initiative is an international organization created to provide guidance not only to businesses, but also governments and non-governmental organizations, to discuss, understand and lend visibility to their actions' impacts on society. It is focused on the environment, climate change, human rights, workers' rights, corruption, among other relevant issues. This way of reporting helps organize information in a reliable, standardized manner, thus highlighting relevant issues. Upon having all the information, two practical consequences are evident: communication with society runs more smoothly and clearer, but in my opinion the greatest gain is companies' becoming better at assessing and deciding about projects, strategies and actions to be developed. In a world with the kind of connectivity we have today, where information flow so quickly, every decision must be made with as much rationale as possible; their impacts must be known fully known. Building a reputation takes years, but it takes minutes to ruin it,

^{4.} Source: Brazilian Business Council on Sustainable Development (Conselho Empresarial Brasileiro para o Desenvolvimento Sustentável — CEBDS).

and, with the variety of assumptions that affect decisions, tools like the GRI are powerful sources of rationale, they create procedures and guides to prevent us from focusing only on the "trees" and start focusing on the entire "forest".

Perenniality and loyalty are administrative and commercial mantras, respectively, in corporations. Out of the 100 largest Brazilian companies in 1990, few are currently included in this index; obviously, this is not only due to failure – merger and brand switching processes also affect this indicator. But what I want to point out with this data is that brands have changed; this is due to a transformation in the entire business environment, and the loyalty and permanence of companies depend on the speed with which they adapt.

Too often, initiatives such as the Corporate Sustainability Index (*Índice de Sustentabilidade Empresarial* – ISE), which proposes to create an investment environment that serves the interests of the society of sustainable development and ethics, do not deliver extremely different results. However, time – a measure of perenniality – demonstrates that they solidify the initiative's image, which is measure of retention. The ISE was created in 2005, from an initiative financed by the International Finance Corporation – IFC, which is a member of the World Bank Group for private investment. The idea was to create a tool that would provide for a comparative analysis of companies' stock market performances. Criteria were based on indicators such as

economic efficiency, environmental balance, social justice, corporate governance, level of commitment to sustainable development, equity, transparency and accountability, product nature, business performance in the economic, financial, social, environmental and climate change dimensions (ISE).⁵

ISE's mission is to "Support investors in their decision-making processes on socially responsible investments and encourage companies to adopt best practices for business sustainability". Again, the intention is, without a doubt, to compare and highlight best practices, but in the form of indicators, and not a mere competition (which is what we also see in the Dow Jones Sustainability Index). The DJSI was the precursor of this movement to indicate companies that seek to create value for their shareholders in the long term, with perenniality, in order to manage, in a transparent and clear way, the risks associated with their operations from the economic, environmental and social point of view. Companies that are attentive to this long-term view of investors know that it is imperative to retain customers.

According to this logic of creating more process that aim at strengthening companies' capacities to debate, both internally and externally, about their practices and ability to reduce their impact, the CDM was considered by several executives

^{5.} Available at: https://www.isebvmf.com.br/.

and businessmen as an important tool to generate discussions. For many years, environmental and social issues were seen only as a cost center, always as the target of some corporate discrimination. The CDM helped change this vision: the possibility of valuing these actions and the recognition given by society to such initiatives turned things around, with more and more professionals focused on seeking the connections between companies' projects and activities with sustainability and emissions reduction. This movement strengthened this topic in Brazil.

In addition to the CDM actions, carbon neutrality actions also began to come to life and to be valued. I see that the carbon issue at the beginning of the third millennium has fostered creativity, changed the way we thought about and valued it; all in connection with new financial and value models. Carbon taught me to value the intangible. That is, we stopped looking at the operation and now we observe the total value chain.

Imagine that carbon credit was almost valued as a commodity; however, it was a product you earned most when produced less – that is, the contrary of a normal commodity. We used to joke about this, saying that we were trading wind. And that happened with interesting mechanisms, in which contracts presented a complex valuation by intangible issues, such as support to local communities and other actions that could differentiate the project.

At the time, projects in companies like Sadia, Energias de Portugal (EDP) and Arcelor sought to integrate not only their value chains, but also the community and the environment in their actions. In the case of Sadia, it managed to turn a threat into a business strategy – by encouraging its affiliates – and added value to its brand, brought positive exposure and status, so much so that at the time its competitors rushed to develop similar proposals. Arcelor sought competitive advantage in similar projects, and a broad carbon project involving coal substitution for charcoal was developed to reduce the costs of obtaining the fuel and integrating the local society to the process. It was a challenging process, but it managed to bring the company together, and created sound discussion environments, thus encouraging the search for solutions. It was no different at EDP: the company used carbon benefits to accelerate the necessary projects, such as linking the Murtinho Port (in the state of Mato Grosso do Sul) to the interconnected power system, supporting and integrating local communities in its small hydroelectric projects (SHPs), among other actions. The added and perceived value of the actions taken by these companies' managers was so great that it gave rise to operational bodies; for example, the EDP Institute (box 1 below). These experiences are not the only success stories; many others stood out and were important at the time.

BOX 1

CDM Repercussion in companies

EDP Brasil has followed the whole process leading to the adoption of the United Nations Framework Convention on Climate Change at the United Nations Conference on Environment and Development (Rio-92) and, subsequently, to the Kyoto Protocol, with its framework of challenges and opportunities.

Suddenly, we understand flexibility mechanisms as a potential tool to encourage agents to go beyond business-asusual practices in order to reduce emissions. Thus, in mid-2006, EDP Brasil began looking at the CDM with particular attention; and sought a true and intrinsic connection with the concept of sustainable development.

At the time, with the support of PricewaterhouseCoopers (PwC), we reflected on how revenues from the sale of carbon credits could be reverted to socio-environmental initiatives in a structured and continuous manner and professionally managed. The EDP Institute was created, and became a true social, environmental and cultural platform for all EDP companies in Brazil.

In the end, not everything went as planned; the sharp decline in the value of certified emission reductions (CERs or CERs) has given the EDP Institute new challenges in terms of funding. But the seed had been planted thanks to the context provided by the CDM; and the EDP Institute completed ten years of operation, with investments of some R\$100 million, which benefited more than 3 million Brazilians. The CDM is a significant part of this history.

Thus, EDP is making history in the Brazilian market, starting twenty years ago, with a very strong connection with renewable energies. The EDP Group's concern with sustainable development means that the company is permanently aware of best practices and new trends as a means of building and strengthening its relations with all stakeholders.

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A number of actions were taken, even outside carbon projects under the CDM, such as companies helping in the management of fleets and fuel. These companies have created simple and intelligent systems to better control the consumption of their customers and stimulate users to have less-impacting profiles, and this has been widely used as a competitive difference in sales.

New businesses have come up and overcome barriers, such as the green courier or zero carbon. Bicycle deliveries began to be normal, and although delivery time was sometimes greater than the usual, companies learned to see greater advantages – that is, to analyze not only an indicator, but also to balance the advantages with new proportions and considerations. Society as a whole began to demand products with a call for sustainability; coffee shops with environmentally and socially correct products have conquered loyal customers, so did organic and sustainable stores.

Crediting all this evolution only to the CDM may be too much, but the capacity that this mechanism has brought to Brazilians, and the world, to look at businesses in a different way and to prepare critical mass is clear.

But the carbon market suffered a blow after the 15th Conference of the Parties – COP15; in a predominantly capitalist market, in order to generate interest, one must create wealth. The ability of Kyoto and climate change to draw attention of the people, as well as voters, has made politicians aware. What we saw in Copenhagen was plain politicking, not only by Brazil, but also by the whole world, but I will stick to the Brazilian example, because it is more relevant for the case in point.

During the Copenhagen climate conference, we saw a flood of pre-candidates for the Presidency of Brazil parading in the corridors of the COP seeking spotlights and microphones. Unfortunately, the demand for personal promotion far outweighed our understanding of the planet and our community's needs; we were victims of simply disproportionate statements, such as: "The environment disrupts sustainable development." It was unfortunate to have heard, but worse to acknowledge that the statement came from the leader of the Brazilian delegation.

This sudden interest of politicians in a technical issue such as climate change has sadly paved the way for the replacement of the Kyoto Protocol. If we seek relevance, we must follow the path we know, and so did politicians. I do not discard the relevance of politics and politicians, they are of great importance in any scenario since the beginning of humanity; however, it is like an experienced mechanic trying to patch your heart valve: the probability of going wrong is almost certain. This is what we have seen, from Copenhagen to Paris in 2015, we are in a limbo; often blaming economic crises, but in fact lacking not money, but clarity about which way to follow. The solution that came up in Paris and that we try to implement today is the only one that every politician knows: it involves state regulation and control, and therein lies the mistake, because nation-states have very well-defined boundaries.

Wealth and benefits do not reach everyone at the same time; according to Angus Deaton, Nobel laureate in economics, this proves that there is no single, uniform solution. Governments do not have flexibility and should not have; they need to follow rules. Having said that, we must seek solutions that open different paths to converge in a continuous fashion. There is no one-way road for global problems that fulfils everyone and every need. Right paths do not exist; we live in a reality in which the range of options is increasingly diverse. Politicians and rulers do not have the option of error; so sometimes it is better to procrastinate and slow down actions than to go wrong. Science, in turn, is a play of trials, in which we have errors in search of rightness, in which experience and experiments flow towards continuous improvement. This is sustainability; and one thing is for sure: leaving the search for solutions on behalf of Governments alone is a condition doomed to failure.

Some critics might say that the lack of a common path might delay the solution, but is there a unique solution? Amartya Sen, in his book Inequality Reexamined (2001), states that even among those who believe in the need for equality, there are many differences in what needs to be equalized.

Life offers many possibilities; not only humans, but also nature. Evolution is sometimes brutal, but what would we be without our ability to adapt?

As goes a small popular text, whose author I do not know,

I learned that not everything is flowers, not every day is sunny. But there is no sadness that shall not pass, nor happiness that lasts forever. Cloudy days will come, the flowers will wither, but then spring will surely arrive! One day, I discovered that life is worth being lived and harnessed to the maximum, regardless of the circumstances. There will always be a new day, a new chance, a new love, a new opportunity ... But life is unique!

The fact is that every time we try to imprint a certain view of right and wrong out of our habitat, we are bound to error at some point; only relativity is right – that is, what works for us may not be the best for the others. The only certainty we have is the inflexibility of time and that every minute we miss the opportunity to act.

The beauty of the Kyoto Protocol structure is that it allowed for the creation of individual solutions and the only obligation was that the solution proposed was a contribution. That is, the baseline was an important factor for improvements to be measured, and that climate change was not detrimental to the environment. The plasticity of this concept is perfect, from freedom to creation, to development, makes us use time for solutions, not the rigidity of laws and rules.

I am an optimist when I think about the human capacity to find ways and understand the peculiarities of each environment. I also know too well that rigidity of certainty in something absolute is important for certain people and communities. This is part of human nature and helps men believe and fight blindly; otherwise, important advances would not be achieved. However, I always see that actions along these lines need specific soils to grow – that is, it has borders.

The need to do something cannot overcome the need to understand what needs to be done.

I believe that, in order to assist in the development of the carbon market and facilitate dialogue, the Brazilian Association of Carbon Market Companies (ABEMC) was created; the idea was good and aimed at facilitating the dialogue between those who developed projects and the government, which was responsible for regulating the initiatives. This model was, in my opinion, perfect. But as I anticipated, I believe that its relevance caused it to succumb to the fear of the new.

Unfortunately, red tape in fighting climate change has taken nine valuable years from us. In my opinion, failure in Copenhagen has killed one of the best integration attempts the planet has ever seen: the Kyoto Protocol and its mechanisms.

But since nothing is definite, I believe that the doors to this path are still open, and the experiences gathered in this book can help us re-establish positive experiences and deal with the negative ones. Twenty years separate us from the

Kyoto Conference; it is not a long time in terms of history, but it is a lot of time when we look at our goals for the future.

Moreover – thinking of the agility and plurality of solutions needed to combat global warming – I see that the integration, as Kyoto proposed, of people into solutions, whether they are scientists, entrepreneurs, executives or inventors, is the best way to achieve convergence towards a socioeconomically and environmentally balanced society.

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