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CARBON PRICING IN BRAZILIAN INDUSTRY:

a strategic initiative

CPLC CARBON PRICING LEADERSHIP COALITION

cebds

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LETTER FROM THE PRESIDENT

Would it be possible to incorporate in a transparent way the impacts of the carbon emission of in the atmosphere into the costs of the companies in order to finance the transition to a new low carbon economy? The answer to this question reflects our ability to change the economy, curb climate change, and effectively influence the sustainable development of the planet. It's time to put it into practice a suitable carbon pricing mechanism in the country.

Initiatives in this direction have spread throughout the world. In 2018, there are already 42 national jurisdictions and 25 sub-national jurisdictions, covering 25% of global emissions, which put into practice some pricing model, be it direct taxation or a carbon market, or a hybrid that combines the two. To talk about our Latin American neighbors, Chile, Mexico and Colombia already price the carbon from important sectors from the point of view of greenhouse gas emissions. 82 billion dollars was the Annual value of carbon pricing initiatives in 2018.

It is essential that Brazil, with all the competitive differential that its natural capital generates be at the forefront of the issue. We have a great potential to stand out in the context of a low carbon economy, but we must defend the valuation of carbon worldwide, and especially create the local legal mechanisms to introduce ourselves to this market still in formation and not be left behind.

In Brazil, the most pressing initiatives of pricing debate arise from the desire of companies to anticipate the transition to a low carbon economy. This leadership has already been pointed out by the World Bank in the study, "State and Trends of Carbon Pricing 2018". These voluntary initiatives allow the reallocation of resources to be converted into new technologies, as well as allowing companies to improve their financial risk management processes related to change help identify risks and opportunities for revenue generation.

In this pioneer study, "Carbon Pricing in the Brazilian Industry: A Strategic Initiative", the Brazilian Business Council for Sustainable Development (CEBDS), with the support of the Carbon Pricing Leadership Coalition (CPLC), points out ways to implement a carbon market in Brazil and brings a proposal for the Brazilian industrial sector.

This work was developed with dialogue with high level representatives and with different sectors considering the national carachteristics as the value of the forest. It is also an invite to join forces on the construction of this important instrument and and to ensure that the next generations live on a healthier planet.

Enjoy the reading.

Marina Grossi
President of CEBDS

WHAT IS CEBDS?

Founded in 1997, the Brazilian Business Council for Sustainable Development (CEBDS) is a civil association that is leading the business sector's efforts to implement sustainable development in Brazil, bringing together government, business and civil society.

CEBDS currently brings together around 60 important corporate groups in the country, with a combined revenue of 40% of GDP and responsible for more than one million direct jobs. CEBDS was the first institution in Brazil to discuss sustainability in terms of the concept of the Triple Bottom Line — which proposes that business action should be based on three key pillars: the economic, the social and the environmental. Besides, it is the country's representative of the World Business Council for Sustainable Development (WBCSD) network, the most important business sector entity in the world, with almost 60 national and regional councils in 36 countries, covering 22 industrial sectors and 200 multinational companies on all the continents of the globe.

A pioneer in its field, CEBDS was responsible for the first Sustainability Report in Brazil, in 1997, and, as of 2008, has helped to implement, in partnership with the FGV (Getúlio Vargas Foundation) and the WRI (World Resources Institute), the main tool for measuring greenhouse gas emissions, the GHG Protocol, in Brazil.

The institution has represented its associates at all United Nations Party Conferences on Climate Change since 1998, and those on Biological Diversity, since 2000. It is also a member of the Sustainable Development Policy Commission and Agenda 21; the Genetic Heritage Management Council; the Brazilian Climate Change Forum; the Rio de Janeiro Climate Change Forum, the World Water Council and the National Sustainable Consumption Plan Steering Committee.

At Rio+20, CEBDS launched Brazil Vision 2050, a forward-looking document that aims to present a vision of a sustainable future and the way to achieve it. This platform for dialogue with businesses and various sectors of society, built up throughout 2011 with the participation of more than 400 individuals and around 60 corporations, has provided a source of inspiration for the strategic planning of numerous companies in Brazil.

WHAT IS CPLC?

A unique initiative, the Coalition brings together leaders across national and sub-national governments, the private sector, academia, and civil society with the goal of putting in place effective carbon pricing policies that maintain competitiveness, create jobs, encourage innovation, and deliver meaningful emissions reductions. The Coalition drives action through knowledge sharing, targeted technical analysis and public-private dialogues that guide successful carbon pricing policy adoption and accelerate implementation.

The Coalition was officially launched at COP21 in Paris in December 2015. As of 2018, CPLC comprises 32 national and sub-national government partners, 150 private sector partners from a range of regions and sectors, and 67 strategic partners representing NGOs, business organizations, and universities. More information: https://www.carbonpricingleadership.org/

INTRODUCTION

This executive brief presents a proposal for the creation of a pioneering carbon market in the Brazilian industrial sector. The development of this proposal is based on discussions at various events organized by the Brazilian Council for Sustainable Development (CEBDS) on the pricing of carbon, as well on direct consultations with industry representatives from the steel, cement, finance, and oil and gas sectors.

The consultations with industry were undertaken in response to an open letter by corporate leaders dated October 2017, which called for the creation of a carbon market in Brazil to ensure a smooth transition to a low-carbon economy.[1] The signatories represent big companies from a range of sectors, including electricity, paper and pulp, transport, health, mining, and others.

In preparing this report, CEBDS drew upon the dialogues at the events it organized, which in turn were informed by economic literature and international experiences.[2] CEBDS also took into account relevant ongoing discussions within the government and civil society as well as current studies that analyze carbon pricing options in Brazil.[3]

Industry in Brazil is eager to see the establishment of a carbon market for several reasons. Companies expect such a market will enable the transition to a low-carbon future by providing incentives that drive innovation in climate-friendly technologies. They also expect that it will allow flexibility in how they manage their emissions while supporting their competitiveness.

Brazilian industry partners seek the following elements in an emissions trading scheme:

- Ambition compatible with the sector's contribution to total emissions;
- Measures to protect industrial competitiveness, for example through the free allocation of emission rights and the use of low-cost credits from the forestry sector; and
- A governance structure with stable and transparent rules and mechanisms for participation.

To ensure that these elements are included in the emissions trading scheme they wish to see established, industry partners believe the scheme should be implemented in stages. A staged approach would facilitate the learning process for the private and public sector actors involved in implementing a carbon market. It would also support development of the different institutions necessary to operate the market; facilitate adjustments to contract and financial rules to support trading; and help test price control instruments, cap setting, and competitiveness policy. These issues are further elaborated below.

1 "Private Sector Supports Carbon Pricing in Brazil: Open Letter," http://cebds.org/wp-content/uploads/2018/04/CARTA-CEBDS_ING_20-04.pdf.

2 A more detailed analysis of the technical issues discussed here can be found in CEBDS, *Precificação de Carbono: o que o setor empresarial precisa saber para se posicionar* (Rio de Janeiro: CEBDS, 2017).

3 These studies include the Projeto PMR Brasil project, which is coordinated by the Ministry of Finance and seeks to explore the viability of and opportunities for including emission pricing (via tax and/or carbon market) in the package of instruments for implementing the National Policy on Climate Change in the post-2020 period. They also include the minutes of the Brazilian Forum on Climate Change (FBMC) workshops on the Brazilian carbon market and pricing.

WHY PUT A PRICE ON CARBON?

Climate policies that involve a greenhouse gas (GHG) reduction target have to adopt either control instruments or pricing instruments. Control instruments specify emission or technological standards common for all emitters from a source. Pricing instruments shift the decision between not emitting or paying to emit to emitters themselves.

Pricing instruments create opportunities for cost minimization, giving economic agents the freedom to choose technologies and make the decision to pay the price for emitting, according to their control costs and targets for production and expansion. In this way, pricing instruments support a least-cost approach to reducing emissions.

In other words, price instruments in the aggregate make it possible to achieve the same emission control target as control instruments, but at a smaller mitigation cost for regulated sectors, thus also decreasing any competitiveness and macroeconomic effects. In addition, pricing generates business opportunities for mitigation and technological innovation, which reduce the mitigation costs over the medium term.

In short, if there is a commitment to reduce GHG emissions, it is generally more cost-effective to achieve this goal with pricing than with control instruments.

INDUSTRY CONTRIBUTES A MODEST SHARE TO BRAZILIAN EMISSIONS. WHY THINK ABOUT CREATING A CARBON MARKET NOW?

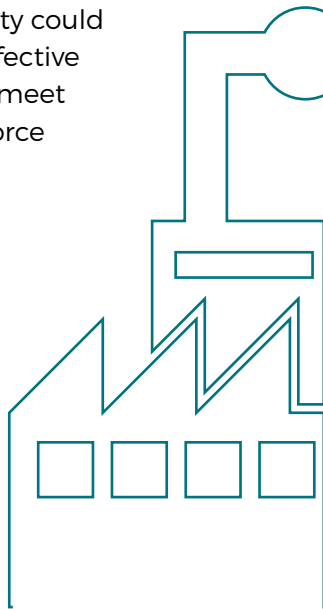
From the National Policy on Climate Change to the Paris Agreement, there are already national emissions reduction targets. In Brazil, where industrial process emissions account for less than 2 percent of total emissions, and energy emissions account for only 6 percent, the industrial sector contributes less than the land use change (LULUCF) sector, which has much higher emissions. Thus the Brazilian targets under the United Nations Framework Convention on Climate Change can largely be achieved by reducing emissions in land use.

However, it is also recognized that Brazil's mitigation advantages based on forest and agricultural emissions will decline, forcing the country in 2025 to begin considering new targets for 2030 and beyond, when emissions from industrial processes and energy will certainly be under discussion.

Furthermore, with the growing adoption of carbon pricing mechanisms, national climate policy targets are increasingly translated into sectoral commitments. Thus there is also an increasing perception that having sectoral commitments associated with the pricing can be strategic to avoid climate protection measures, especially with the current intensification of commercial disputes.

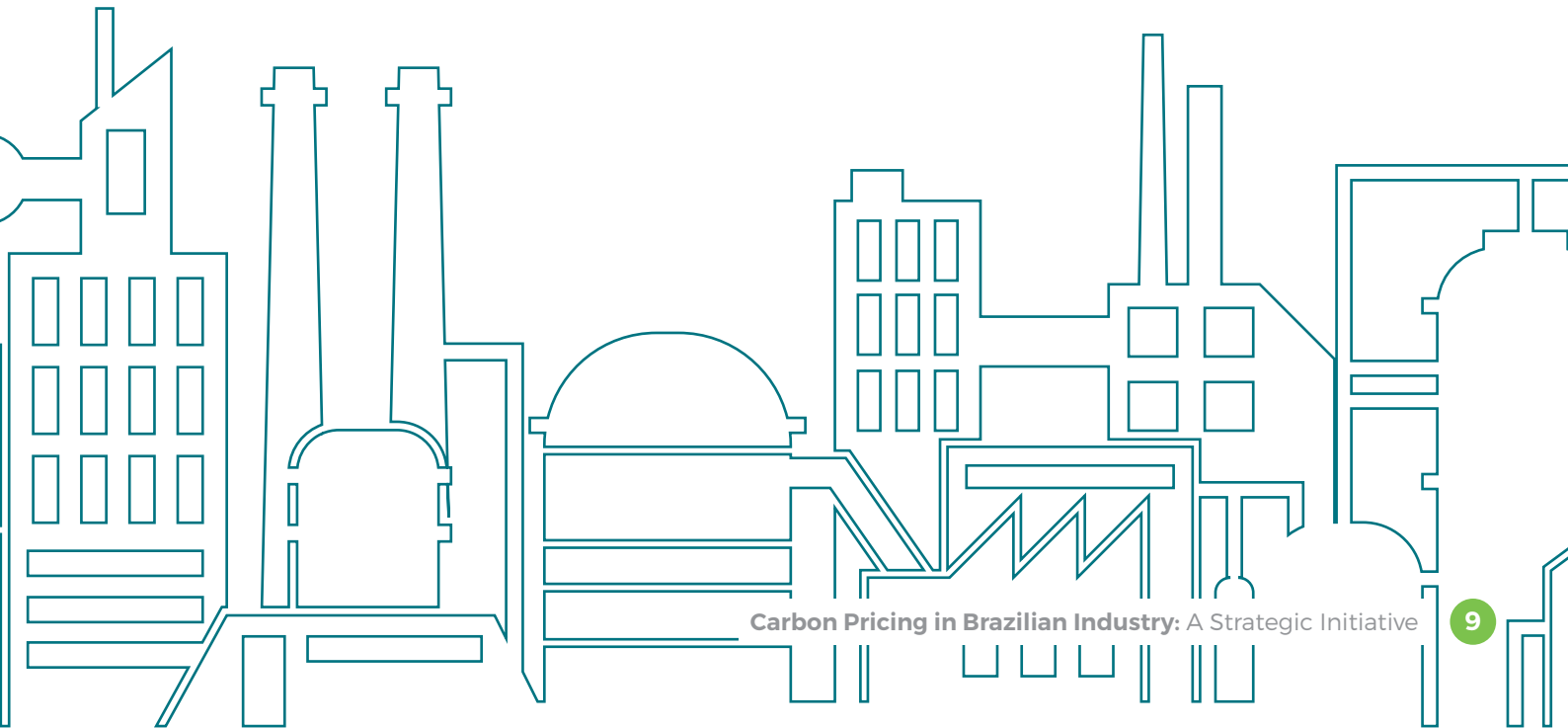
Given that emissions by industry account for a relatively small share of total national emissions, and that emissions in many sectors have already attained low carbon intensities in international terms, the pioneering market initiative for industry seeks to strengthen the participation of the sector in national commitments to reduce greenhouse gas emissions.

Carbon pricing could in fact be a key component of the current competitiveness agenda of the Brazilian industrial sector. Both consumer preferences and supply chains elsewhere are changing rapidly with growing climate-related concerns, and industry will need to adapt in response. With the right long-term incentives, Brazil's extensive academic, technological, and financial capacity could support and offer access to cost-effective low-carbon production options to meet changing market trends and reinforce the country´s competitiveness.



Including carbon pricing in Brazil's mitigation response is also important from a global perspective. Brazil's main commercial partners—China, the European Union (EU), and several Latin America countries—already have an emissions trading system (ETS), and by joining the game Brazilian industry can expand its presence in these markets and attract investment in low-carbon innovation.

Establishing carbon pricing through a trading scheme aligns with regional developments. Mexico, Argentina, Colombia, and Chile have already adopted carbon taxes and are moving toward trading schemes at national and regional levels. Once Brazil has its own trading scheme, the size of its domestic market and the dominance of its manufacturing sector in the region will reinforce the country's leadership in the trade agenda within the region and beyond it.



HOW SHOULD A PRICE BE PUT ON CARBON?

There are two types of pricing instruments: taxing, in the form of a surcharge on emissions, and a market with tradable emissions.

Both are equal in terms of economic efficiency when there is no uncertainty about transaction and mitigation costs. Otherwise, it is preferable to adopt the instrument offering lower transaction costs and less uncertainty about mitigation costs.

Generally, a tax used by the existing fiscal regulatory framework and fiscal administration will have lower administrative costs than an emissions trading scheme. On the other hand, carbon taxes tend to link fiscal ends to pricing to ensure stable and growing revenue, and these existing structures may be neither transparent nor participatory.

Despite the administrative simplicity of a tax, however, regulated entities generally prefer an emissions trading scheme. This preference has to do with their wish to avoid an increased tax burden, and with the possibility that tax revenues could be targeted at investments not related to the climate transition. In many cases, an ETS would provide regulated entities with greater flexibility and offer them a fair basis for engagement in the climate transition.

An emissions trading scheme requires a new and specific arrangement, but it offers greater flexibility in how it can manage competitiveness—for example, through the free distribution of emission rights for sectors most at risk. Even though part of the initial allocation is often done through auctions generating revenue for the government, this approach still allows adjustments following these allocations to generate revenue flows between those regulated. In addition, emissions trading markets create other business opportunities through the activities associated with the operation of the market itself and the participation of financial institutions.

Fifty-one national and subnational jurisdictions have already adopted carbon pricing, including some of Brazil's main economic trading partners, such as China, Canada, and the European Community. Of these jurisdictions, 25 have market approaches in place and 26 have tax approaches.

In total, the two forms of pricing cover 20 percent of global emissions, with an annual value of US$82 billion—a sum that underscores the importance of recycling these resources within the sector. The carbon price levels vary widely, from US$1/$ tCO_2e **to US$139/$ tCO_2e; but in 49 percent of cases, the prices are lower than US$25/$ tCO_2e**, and in 17 percent of cases they are lower than US$10/$ tCO_2e.[4]**

4 See World Bank, Ecofys, and Vivid Economics, *2018 State and Trends of Carbon Pricing* (Washington, DC: World Bank, 2018).

WHAT ARE THE EXPERIENCES WITH CARBON MARKETS IN BRAZIL?

Although Brazil still has no carbon market, it has had experiences that provide important lessons on market mechanisms to control greenhouse gas emissions.

Brazil is a major participant in the creation and regulation of the Clean Development Mechanism (CDM) under the Kyoto Protocol. It occupies or occupied third place in the provision of credits, with 339 project activities. Brazil's National Climate Change Policy established a Brazilian Emissions Reduction Market (*Mercado Brasileiro de Redução de Emissão*, MBRE), which since 2009 has aimed to encourage the development of projects. Although only CDM transactions can be supplied to countries with targets under the Kyoto Protocol, the MBRE transactions have allowed the BM&FBOVESPA stock exchange to develop business instruments for the carbon market in an organized and transparent way. It provides a good basis upon which to build carbon trading in Brazil.

Another more recent experience relevant for a future national market is the *Plataforma Empresas pelo Clima* (Companies for Climate Platform), or EPC. An initiative of the Center for Sustainability Studies (GVces) of the Business Administration School of Fundação Getulio Vargas, the platform simulates an emissions trading system with a voluntary panel of 23 companies from various sectors of the Brazilian economy (forestry production, pulp, and paper; services; electrical; logistics; processing industry; civil construction; extractive industry; and water, sewage, and waste management). This platform has been in operation since 2014 with the goal of allowing companies to learn about emissions trading. The simulation is based on the regulations of the European Union ETS and the California cap-and-trade system.

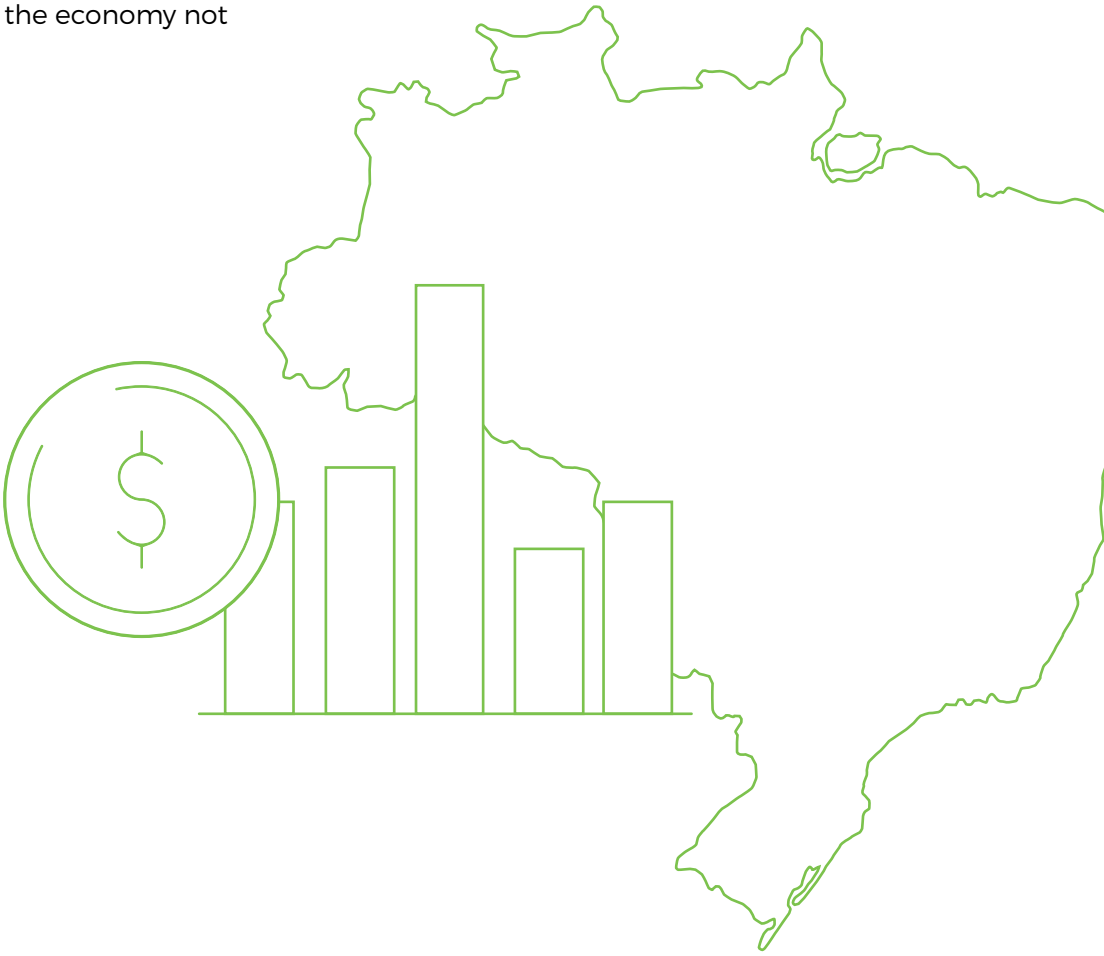
Companies participating in this platform have to reconcile, at the lowest possible cost, their emissions with the allocated emission rights. Regulations and parameters are reviewed annually, and transactions take place through the BVRio trading platform. Company emission data are real (i.e., not simulated) and cover Scope 1 of the GHG Protocol. The amount of emissions used in the simulations is equivalent to 9 percent (more than 60 million tCO_2e) of Brazilian emissions in 2014, excluding those from land use change. The rights are distributed through auctions and free benchmark allocation based on carbon intensity indicators. The experience of participating companies offers insights into operating in the market and more generally suggests the following conclusions:[5] The heterogeneity of costs allows for the minimization of control costs; thus the broader the scope of pricing, the lower the cost of achieving a target.

5 Plataforma Empresas pelo Clima, *Aprendizados da Simulação de Sistema de Comércio de Emissões Propostas a partir da Experiência Empresarial* (São Paulo: EPC Iniciativa/GVCES, November 2016).

- The allocation of emission rights should account for the impact on the competitiveness of the regulated parties most exposed to international trade.
- The standardization of monitoring, reporting, and verification (MRV) procedures is fundamental to creating a robust, transparent, and up-to-date information system.
- Learning should be continuous and gradual; the market should evolve in stages that represent increasing levels of commitment and should rely increasingly on auctions to allocate rights.
- Mechanisms that control the variability of prices are beneficial, as is the use of offsets that provide opportunities for low-cost mitigation in sectors of the economy not covered by the market.

Brazil could also draw on the standards of ABNT NBR 15948:2011 (Voluntary carbon market–Principles, requirements and guidelines for trading verified emissions reductions), although adjustments would be required, given that the new carbon market would be compulsory, not voluntary.

Finally, some of the large Brazilian companies monitor, report on, and verify their GHG emissions voluntarily on platforms such as the Brazilian GHG Protocol Program and CDP Climate Change, and there are also reports on the managed mandatory state systems. This MRV experience will be very valuable for efforts to standardize the Brazilian carbon market's accounting and reporting regulations.[6]



6 This convergence is already being analyzed in the *Report on Emissions Component of the Climate Change Policies Program* (POMuC), coordinated by the Ministries of Finance and Environment.

A PROPOSAL FOR THE BRAZILIAN INDUSTRIAL SECTOR

The following proposal for a carbon market for the Brazilian industrial sector draws on consultations with sector representatives, as well as lessons learned from international experiences and from simulated experiments in Brazil. The proposal highlights the issues of concern for Brazilian industry that will need to be considered in the design of the carbon market.

GRADUAL IMPLEMENTATION

Carbon pricing involves technical and institutional challenges and can therefore benefit from a gradualist approach. Many carbon pricing systems have been implemented in stages and have grown more ambitious over time—reflected in changes to the commitments for reducing emissions, the scope of the regulated sources, the criteria for the allocation of emission rights, and other aspects of the scheme. International experiences also show that time is required for system participants to learn how to deal with economic cycles and changes in sectoral policies.[7]

Brazilian industry stakeholders have stressed that the regulated entities as well as the regulators must have an opportunity to learn and improve the operations of the scheme. Implementation could be gradual to enable participants to gain a good understanding of the rules, the determinants of price, and the opportunities for financing emissions reductions.

For example, a market for emission rights could begin with an initial five-year phase and cover energy and process emissions for industrial plants above a certain size or emissions threshold. During this phase, participant companies would be incentivized to engage by exempting them from any additional carbon pricing mechanisms that are implemented, including carbon taxes.

PROTECTING BUSINESS COMPETITIVENESS

Brazilian industry has been making efforts to improve its international competitiveness, and many businesses would prefer to adopt climate policies—and in particular carbon pricing policies and measures—that do not threaten their achievements. Among the design suggestions put forward is a price ceiling of US$10/t$CO_2$ for the first phase, combined with free allocation for those sectors with the greatest exposure to international trade, high mitigation costs, and high carbon intensity. Allowing offsets from the forestry sector and providing tax exemption on capital gains in emissions trade transactions could also be used to help contain costs.

7 See World Bank, Ecofys and Vivid Economics, *2018 State and Trends of Carbon Pricing*.

GOOD GOVERNANCE

The effectiveness of the carbon pricing system depends on good governance, and more specifically on skilled institutions and stable and transparent rules and procedures for participation. To promote good governance, the proposed regulatory framework should be created by law and establish or define principles, general guidelines, phases, appointments, scope, the legal nature of emission rights, and mechanisms for participation of regulated agents. Norms and standards for the recording and monitoring of transactions and emissions must also be regulated, along with MRV standards and use of financial derivatives.

In order to be effective, the institutional arrangement supporting such a scheme should clearly identify the mandates of public and private entities. It should make an executive governmental agency at the federal level responsible for implementing and coordinating the regulatory market and its participants, including the stock exchange, agents, operators, and MRV entities.

CONCLUSION

Many Brazilian industry stakeholders wish to develop a national emissions trading market. They recognize the need to build on the momentum generated by the ETS simulation, as well as on global developments currently under way, to ensure that they remain competitive with their peers in other regions at a time when global economies are increasingly integrated and momentum on climate action is on the rise. The industry representatives involved in this study recommend pursuing a dialogue with the federal government—that is, the Ministries of Finance, Environment, Industry, and Commerce—to explore how to more forward and chart the next steps in developing the ETS institutional and legal framework.

To maintain momentum, industry actors will need to remain proactive in conceptualizing and supporting the development of the market, as they will be key players in its implementation. They will therefore need to continue engaging stakeholders across the sector to advance understanding of how they can respond within their own operations as well as contribute to building the requisite knowledge and capacity around emissions trading.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