



PROGRAM FOR

# CARBON MANAGEMENT

IN THE SUPPLY CHAIN





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**CARBON  
MANAGEMENT**  
IN THE SUPPLY CHAIN

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**1<sup>ST</sup> EDITION**



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para o Desenvolvimento Sustentável

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# EXECUTIVE SUMMARY

The Program for Carbon Management in the Supply Chain, developed by the CEBDS Energy and Climate Change Thematic Chamber (CTClima), has raised the awareness of and trained 32 suppliers of member companies in order for them to conduct their GHG emission inventories. According to the latest survey, carried out in August, 22 of these companies have already presented their inventories, fully (15) or partly (7). These figures show that the pilot project has a consolidated take-up rate of 69%, and is an important tool for companies that have realized that the main source of their GHG emission lies in their supply chain, as demonstrated by an analysis of the inventories published by the GHG Protocol program.

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# INTRODUCTION

In 2008, the Brazilian Business Council for Sustainable Development (CEBDS) adapted the methodology of the World Resources Institute (WRI), the GHG Protocol, to the Brazilian context, in partnership with the World Business Council for Sustainable Development, GVces and the Ministry of the Environment. At present, this is the methodology that is most widely used by companies and governments to carry out greenhouse gas inventories.

Its importance to the national reality was such that, today, just four years after its actual start with 27 companies, those officially publishing their inventories have risen in number by 250% – despite the absence of legislation compelling or even encouraging this practice.

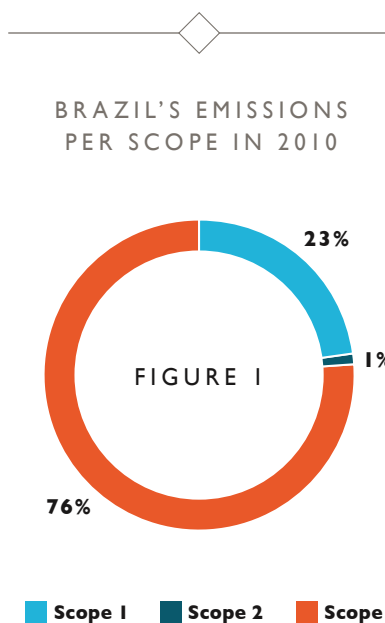
However, there has been an increase in the number of companies publishing their inventories, and in their refinement. By investigating their sources of emissions, companies obtain greater knowledge of their own production process and even of their suppliers' production processes. In fact, one of the conclusions of this investigative process is that depending on the type of business of the company that conducts its inventory, a major portion, or even the vast majority of its emissions do not come from its production processes (scope 1) or as a byproduct of the energy generated for such processes (scope 2) but, rather, from its supply chain (scope 3) (FIGURE 1).

One of the main conclusions of this analysis is that despite any investment that this company makes in energy efficiency or other methods for mitigating its emissions, the result will not have a major impact precisely because of the considerable proportion represented by its suppliers' carbon footprint in the overall volume of emissions. In this sense, greater closeness between such companies and their suppliers is indispensable – whether due to the possibility of more restrictive legislation regarding emissions in the future, or to the backing needed by the stakeholders involved in the process.

Strategies to forge closer relations with suppliers, and even the training of suppliers by companies on specific matters had already been occurring. Some have gone so far as to establish that in the near future one of the criteria for the contracting of products or services from these suppliers will precisely be whether they take the inventory and control their greenhouse gas emissions. In line with this aim, the CEBDS Energy and Climate Change Thematic Chamber (CTClima), with support from KPMG, has proposed to concentrate these individual efforts into a single task, through the Program for Carbon Management in the Supply Chain. The idea of the project was to bring together the largest possible number of member companies' common suppliers with the intent of raising their awareness both of climate change and of the necessity of conducting inventories, and then training them to carry out this measurement.

The two complementary approaches, awareness-raising and training, turned out to be relevant owing to the common features of the expectations held by these suppliers. The first was their possible lack of knowledge about climate change and its direct impact on society and on business. Moreover, the awareness-raising seemed fundamental for these suppliers to manage to connect climate change issues with the actions of their enterprises and, of course, with how inventorying their emissions could impact the knowledge of their own business and possibly lead to efficiency gains over the course of the process. The complementary training element was shown to be necessary, since even those already aware of the issues might lack the technical outlook and specific expertise needed to carry out their inventories.

The project began in late 2011 and was concluded in May 2012, having been sponsored by Vale, Votorantim, Banco do Brasil and Banco Itaú. Over 240 suppliers of the sponsors were initially contacted. Among the most important suppliers, and those that were common to more than one company, 50 were selected to take part in the awareness-raising and training workshops. The following pages demonstrate the methodology employed for the project, its main results and conclusions, as well as the self-criticism of those conducting the process, an important element for the project's continuation and expansion.



# PROJECT

The objective of the project was to seek the engagement of CTClima members' main suppliers for the formulation and publication of greenhouse gas inventories. After some adjustments and reformulations, the initial project was divided into four consecutive stages:



## I. DEFINING PARTICIPANT SUPPLIERS

### Initial lists of participant companies

After sending out the initial lists to the participant companies, 244 suppliers were recommended for the project. They were from all over Brazil and from different business segments.

An initial analysis found a discrepancy in terms of the segments (FIGURE 2), and great regional concentration in the Southeast (78%) and, specifically, in the state of São Paulo (51%) (FIGURE 3). Another potential problem emerged: the kinds of service provided to the companies by these suppliers were also rather discrepant. Some had very significant emission levels (such as steel or transport), while others lacked the same carbon intensity (like providers of IT services or consultancies).

Even so, the most impacting figure of the initial list was the number of companies that did not carry out inventories (FIGURE 4): out of the original universe of 244 companies, only 8 were already doing some sort of greenhouse

gas emissions survey. This further reinforced the need for action, according to information made available by the companies themselves.

Also regarding the initial group of suppliers put together by the companies, it is worth mentioning that the lack of information with respect to their size – whether these were small, medium-sized or large companies. Just 63 companies had this data revealed. For the record, and for future reference: there is a need to ascertain this information in advance and to define the criterion to be used to this end (whether by revenue or number of employees).

### Selection of the project's 50 participant suppliers

One of the most challenging figures relating to the initial list was that only 8 suppliers were common to two or more of the four participant companies – something not that surprising given the sectors in question: two banks, a mining company and an industrial group with activities in mining, steel, cement, energy, paper and pulp

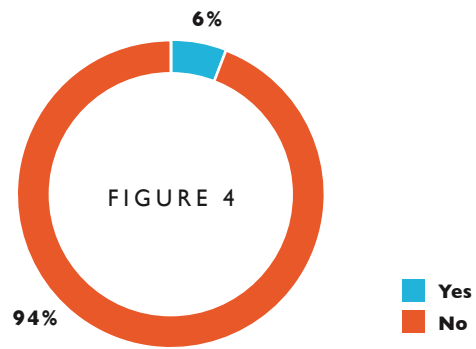
THE MOST IMPACTING FIGURE OF THE INITIAL LIST WAS THE NUMBER OF COMPANIES THAT DID NOT CARRY OUT INVENTORIES. OUT OF THE ORIGINAL UNIVERSE OF 244 COMPANIES, ONLY 8 WERE ALREADY DOING SOME SORT OF GREENHOUSE GAS EMISSIONS SURVEY

and orange cultivation. The discrepancy is clearly identifiable in the distribution per sector of the 50 participant suppliers (FIGURE 5).

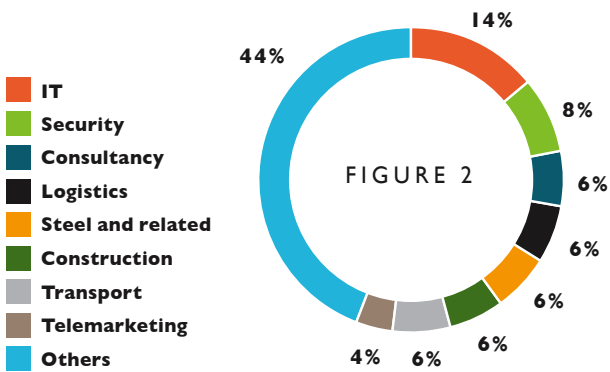
On the graph presented, only sectors with three or more suppliers are represented individually. One notices that the atomization found in the first group (FIGURE 2) remained in the second (FIGURE 5) – further reinforcing the need for the tough but important mission of working with different sectors on the same project.

The same occurs with the participants' geographical distribution (FIGURE 6). Even though one finds a slight fall in the preponderance of the Southeast and increase in the number of suppliers from the Center-West, the proportion remained almost the same as in the original group.

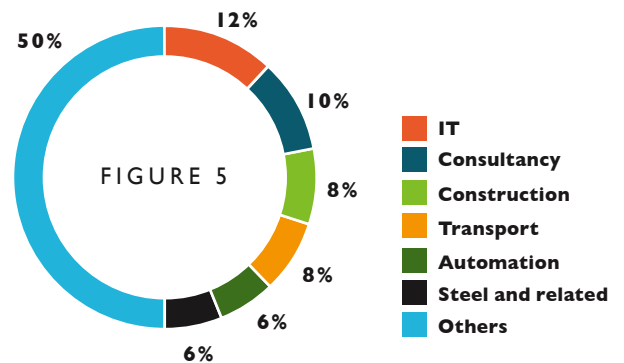
SHARE OF COMPANIES THAT HAD ALREADY CONDUCTED GHG INVENTORIES BEFORE THE PROJECT  
(GROUP RECOMMENDED BY THE PARTICIPANT COMPANIES)



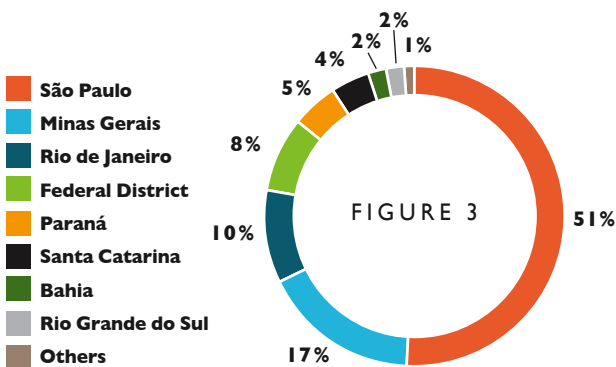
SUPPLIERS PER SEGMENT  
(GROUP RECOMMENDED BY THE PARTICIPANT COMPANIES)



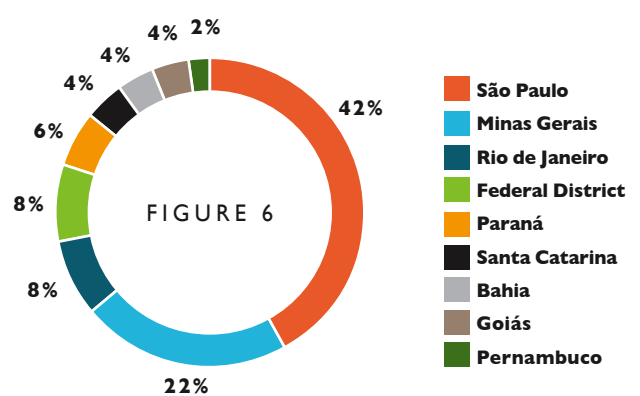
SUPPLIERS PER SEGMENT  
(PARTICIPANTS ONLY)



SUPPLIERS PER STATE  
(GROUP RECOMMENDED BY THE PARTICIPANT COMPANIES)



SUPPLIERS PER STATE  
(PARTICIPANTS ONLY)



## II. AWARENESS-RAISING AND TRAINING

The process of awareness-raising and training began with two workshops conducted in São Paulo on March 27 at KPMG headquarters. Two 4-hour sessions, with 25 suppliers each, were held to provide an initial contact between the project's participants and its formulators, explain the motivation of the CEBDS member-companies and present cases of suppliers that clearly benefited (and, consequently, benefited their customers) from conducting their enterprises' carbon management.

Out of the participant suppliers, 32 attended their respective workshop. Transport costs, scheduling issues and the lack of a special need for the awareness-raising stage were the main justifications alleged by absent suppliers.

The main aim of the workshops was to raise these suppliers' awareness of the need for adaptations in the management of their business owing to climate change. As commented previously, at times, suppliers had little engagement or even interest in the question – even those whose products and services cause major emissions or other significant climate change impacts. In fact, an important point stressed at the workshop was the direct consequences of climate change to various sectors of the Brazilian economy – and it was precisely on the basis of these consequences that the advantages and differentials for those who carry out emissions inventories were put forward.

After each workshop, there was a brief introduction to the calculation tool of the GHG Protocol Brazilian Program and how to use it. It was previously agreed with the suppliers that in the light of the very broad spread of the sectors present, it would be more fruitful to provide an overall summary of the tool's functions and use than specific operational details that each sector might request. The presentation focused on setting

the operational bounds, identifying and classifying the main sources of emissions, and categorizing the three scopes. Lastly, the functioning of the program's calculation tool was demonstrated.

After the workshop, an online form was circulated among the 50 participant suppliers for them to evaluate their participation in the project, point out the workshop's main conclusions and indicate their expectations as to whether they would in fact initiate the work of taking inventory of their emissions from then on.

Over 80% of the suppliers did not carry out any type of inventory of emissions before the project (FIGURE 7). In order to justify this, some 60% of them cited lack of necessity or interest, either due to the type of business they are in or to their low level of emissions; technical difficulties inherent to the process; or related cost (FIGURE 8). One concludes, therefore, that the Program for Carbon Management in the Supply chain provides a response to all of the abovementioned justifications. In other words, the project confirms the interest of its "clients" in the information of the inventory (they were the sponsors of the workshops) and trains suppliers in how to gather the information – all this at virtually no cost (participants only paid for their transport to São Paulo).

With respect to the qualitative evaluation of the workshops, the participant suppliers rated the awareness-raising at an average of 3.9, on a scale of 1 to 5. In turn, the quality of the information related to conducting the inventories was rated at an average of 4. Only two of the 32 suppliers considered the quality of the information poor; while the vast majority, in both evaluations, considered the workshop good (FIGURE 9).

So it is not by chance that the most significant result of the questionnaire

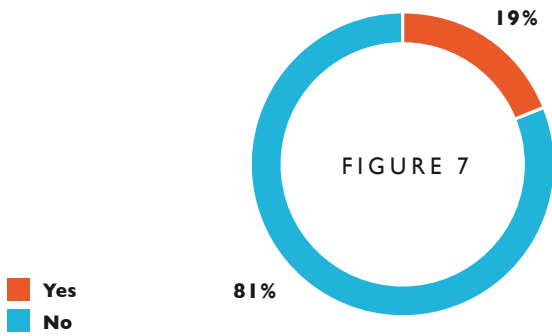
TWO 4-HOUR SESSIONS, WITH 25 SUPPLIERS EACH, WERE HELD TO PROVIDE AN INITIAL CONTACT BETWEEN THE PROJECT'S PARTICIPANTS AND ITS FORMULATORS



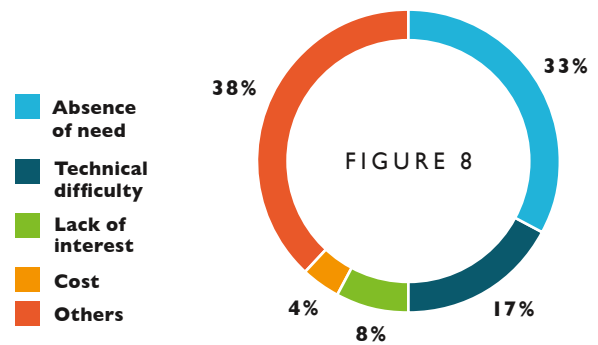
refers to suppliers' willingness to conduct their first inventory, or a new one, after the workshop: four out of five said they would, while 6% did not yet know for sure (it depended on decisions to be made after this report's publication) (FIGURE 10). This can be regarded as the project's first successful outcome. Though on a small scale, the engagement of four out of five

suppliers that took part in the workshop demonstrates that: (a) the methodology, even if prone to improvement, was accurate in the points worked on, the arguments used and the initial stage of training; and (b) it is already possible to plan a second round of the project on a larger scale, with the due adaptations, for the next few years.

SHARE OF PARTICIPANT SUPPLIERS THAT HAD ALREADY CONDUCTED GHG INVENTORIES BEFORE THE PROJECT



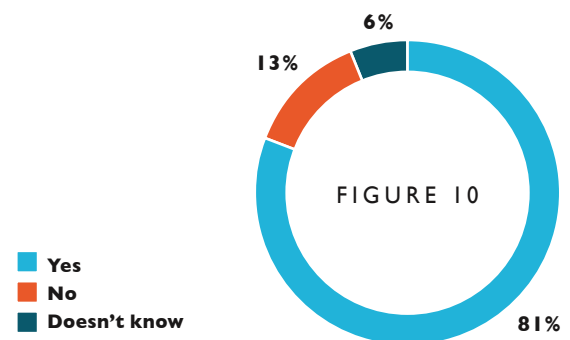
MAIN REASONS MENTIONED FOR NOT CONDUCTING EMISSIONS INVENTORIES



QUALITATIVE EVALUATION OF THE WORKSHOP BY PARTICIPANT SUPPLIERS (1: VERY POOR; 5: EXCELLENT)



SUPPLIERS WILLING TO CONDUCT THE FIRST / A NEW INVENTORY AFTER THE WORKSHOP



### III. SUBSEQUENT INDIVIDUAL FOLLOW-UP

During the last stage of the project, KPMG maintained a continuous follow-up process with the companies that attended the workshop and/or answered the subsequent questionnaire. The companies were accompanied over the course of their internal processes, asked for assistance on particular questions and consolidated their inventories.

At the time of the last survey (August 2012), 22 companies had presented a full (15) or partial (7) emissions inventory, which means 91% of the total number of suppliers who at the end of the workshops said they were willing to conduct inventories, and 69% of the total number of participants. The remainder (12) have not yet set a date or did not answer this question (FIGURE 11).

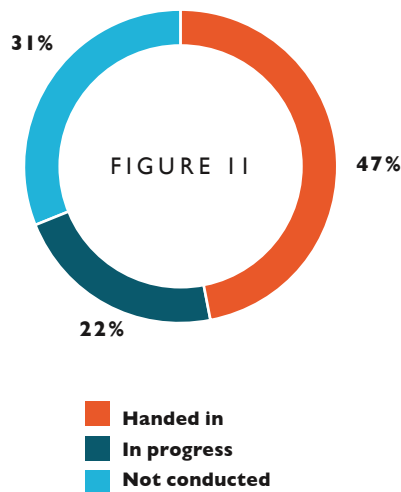
Of the inventories received, KPMG checks items such as the scope worked

on (whether the inventory was for the whole company or just for those areas that supplied to the participant companies), the version of the tool employed (it was updated twice in 2012) or the sources of emissions considered. In short, these are tasks meant to round off the information already presented and follow up that yet to be presented.

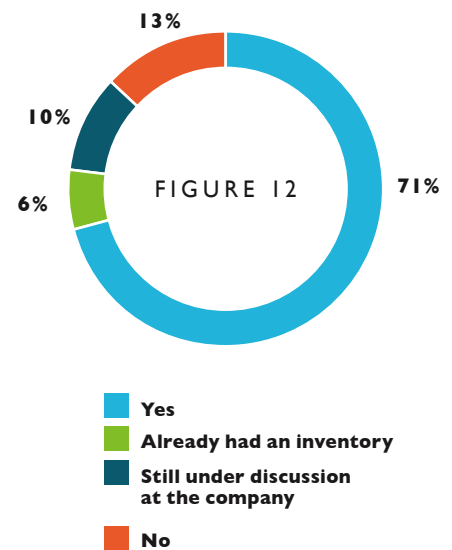
The number of companies that said they were mobilizing to conduct their inventory fell slightly (to 77%) in comparison with the previous survey, while the number of companies still unsure rose to 10% (FIGURE 12). This may be a reflection of a detachment between companies' technical/managerial teams (the workshop's target audience) and decision-makers – thus demonstrating the possible necessity of working with staff further up the hierarchy of these suppliers as well.

91% OF THE TOTAL NUMBER OF SUPPLIERS WHO AT THE END OF THE WORKSHOPS SAID THEY WERE WILLING TO CONDUCT INVENTORIES, AND 69% OF THE TOTAL NUMBER OF PARTICIPANTS

STATUS OF THE ONGOING INVENTORIES (AUGUST 2012)



SUPPLIERS MOBILIZING INTERNALLY TO CONDUCT INVENTORY (JUNE 2012)



# CONCLUSIONS LESSONS LEARNT AND NEXT STEPS

The Program for Carbon Management in the Supply chain has achieved its intended objectives, especially by means of two outcomes: the first and more direct one was the awareness-raising and training of participant companies' suppliers. More than thirty participant companies' suppliers had their awareness raised and were trained at the project's workshops. At least fifteen of these have handed in or are about to hand in their carbon emissions inventories.

The second positive outcome is the possibility of replicating, expanding and continuing the project over the next few years. As previously spelt out, even though the project is prone to criticism and must be further perfected, its main focus – the training of a diverse and highly representative group of suppliers, preferably common suppliers, of the participant companies – has been approved. And this can and should be replicated and continued in future rounds.

However, the criticism must not be relegated. A series of points will have to be improved for the take-up rate of the project to grow satisfactorily. An initial point, for instance, is a more intense dialogue prior to the project within participant companies, so as to select not just the most strategic suppliers but mainly those with a higher share of the total scope 3 volume – something that hardly took place in this, the first project. Another point to work on relates to the standardization of the information requested about these suppliers: data such as location,

sector of activity, size (and choice of the criterion for defining size, whether by revenue or by number of employees) and whether inventories are already taken. In this respect, it is necessary that those conducting the project (CEBDS and KPMG) have a more in-depth dialogue with participant companies' purchase areas and suppliers, as well as an enhanced internal dialogue at these companies, with a view to reducing possible communication problems.

On the other hand, both the participant companies and those conducting the project must establish even closer contact with the participant suppliers; the former, by encouraging their participation, for instance, by means of a specific invitation to all points of contact, thus formalizing and legitimating the call for them to take part in the project even more. The latter, for their part, furnished with ample information about these suppliers – specifically, with a constant point of contact – must do their best to coordinate and ensure that all are present at the workshops and to follow

up the inventory-taking process on a regular basis. A relevant fact detected was the extra interest displayed by suppliers whose client companies already have contractual demands in place relating to the presentation of inventories.

Another point for improvement, so far not touched upon in this report, is following up the destination of the inventories conducted. When the project was initially conceived, it included the idea of a possible publication of the inventories in Brazil's public registry of emissions, of the GHG Protocol Brazilian Program. The scope for this later diminished, which made this follow-up impossible. The suppliers were then informed that the inventories would be forwarded to their client companies. We note that the publication of the inventories should be studied in future rounds of the program, so that these emissions may be made public (and on an annual basis) and that the Brazilian database on the subject may grow.

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## PROGRAM FOR CARBON MANAGEMENT IN THE SUPPLY CHAIN

**Realization**



**CEBDS**

Conselho Empresarial Brasileiro  
para o Desenvolvimento Sustentável

**Participating companies**



**Support**



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