

Carbon Disclosure Project (CDP5) Greenhouse Gas Emissions Questionnaire

We request a reply to the following questions by the 31st May 2007. Please answer the questions as comprehensively as possible or state the reasons why you are unable to supply the information requested. If at this stage you can only provide indicative information we still welcome this, as a 'best guess' is more valuable to us than no response.

One of the main objectives this year is to improve the quality of the responses and standardize reporting to facilitate better comparison of data across and within sectors. We therefore request that answers to the following questions are provided for your company as defined in your consolidated audited financial statements. If you are unable to respond on this basis, please explain why and detail the reporting boundaries you have used.

We recognize GHG emissions and climate change have varying impacts on sectors and companies. We have therefore divided the questionnaire into two sections to reflect these differences. Companies are encouraged to answer both parts of the questionnaire where relevant.

Section A: For all companies to complete.

Section B: For the following companies to complete:

1. Companies with combustion installations with a rated thermal input exceeding 20 MW.
2. Companies involved in the following sectors:
 - * automobiles & components
 - * aerospace & defense
 - * chemicals
 - * construction materials
 - * electric utilities
 - * energy equipment & services
 - * oil, gas & consumable fuels
 - * metals & mining
 - * paper & forest products
 - * transportation
3. Companies in any sector that may be significantly influenced by GHG emissions or climate change.

New procedures for CDP in 2007

Please use our website for direct data entry via www.cdproject.net/cdp5. If necessary, send your response electronically in English to the Project Coordinator at info@cdproject.net.

Your response will be made publicly available at www.cdproject.net in September 2007, unless you notify us to the contrary. If you inform us that you do not want your information disclosed, we will only use it in production of aggregate statistics.

For additional guidance and information please see the Further Information attached to this questionnaire, or refer to the Reporting Guidance section at www.cdproject.net.

Section A:

For all companies to complete

1 Climate Change Risks, Opportunities and Strategy

For each question please state the time period and where possible the associated financial implications.

- a Risks:** What commercial risks does climate change present to your company including, but not limited to, those listed below?
- i Regulatory risks associated with current and/or expected government policy on climate change e.g. emissions limits or energy efficiency standards.
 - ii Physical risks to your business operations from scenarios identified by the Intergovernmental Panel on Climate Change or other expert bodies, such as sea level rise, extreme weather events and resource shortages.
 - iii Other risks including shifts in consumer attitude and demand.

The industrial revolution changed the relations between man and nature. And one of the consequences is the Earth's climate change due to human economic activities mainly as a result of the increase of the "greenhouse gases". The effects of these changes may generate several risks and economic and commercial opportunities to companies.

As the Bank activity has a direct impact on the environment, the main commercial risks are subject to the environmental risk analysis of its clients and financial operations, such as:

- Impact on the risk evaluation of companies caused by climate events, such as floods or severe drought periods resulting in the reduction of agricultural crops;
- Compliance cost – environmental regulations;
- Data evaluation of GHG emissions of clients;
- High energy price variation;
- Increase in the number of insurance claims;
- Social-environmental risk analysis of new projects (Ecuador Principles);
- Social-environmental risk analysis of companies and their products by the market and consumers (conscious consumption).
- Social-environmental risk analysis of companies by investors;
- Changes in the energetic matrix in pursuit of cleaner alternative energies;

- b Opportunities:** What commercial opportunities does climate change present to your company for both existing and new products and services?

The Kyoto Protocol proposed a series of actions to reduce the Greenhouse Gas Emissions (GHG). In practical terms, its purpose is to reduce the Greenhouse Gas Emissions (GHG) by approximately 5% in comparison with 1990, from 2008 to 2012. This international political instrument provides for a series of mechanisms to reduce the emissions at the lowest cost for those countries that are obligated to do it (they have emission targets), including, but not limited to, the trade of carbon credits, in which companies may promote the reduction of GHG gas outside its territory through Clean Development Mechanisms (CDM).

Brazil was not mentioned in the list of countries of Annex 1, therefore it does not have targets for GHG emissions and may negotiate the carbon credits arising from CDM projects. The banks are essential in such process through financial instruments for reducing the project risks, increasing the opportunities and creating funds to be applied in new technologies or financing of projects. Such actions may contribute for the environment and sustainability, since the banks may apply their whole management capacity, products and benefits in the environment.

Bradesco sees risks and opportunities generated due to climate changes as a competitive advantage and a strategic sustainability issue, and not only a new business opportunity. The main products and services relating to climatic changes offered by Bradesco are:

- Advisory services to clients in the development of MDL (Clean Development Mechanisms) projects according to the rules set forth by the Kyoto Protocol

- Negotiation of carbon credits.
- Proinfra: financing for alternative energy sources (BNDES onlending).
- Biodiesel: financing to support investments in all biodiesel production phases (BNDES onlending).
- Propflora: financing for implementation and maintenance of forests intended for industrial use and maintenance, as well as restoration of preservation areas and legal forest reserve(BNDES onlending)
- Kit Gas CDC: financing for vehicle fuel conversion into natural gas (GNV).
- Solar Heating CDC: financing for acquisition of solar heating equipment.
- Forest Certificate CDC: credit facility for clients seeking to obtain Forest Certificate.
- Forest Working Capital: loan for corporate clients with forest certificate/custody chain or agreement evidencing certification process.
- Affinity Card - SOS Mata Atlântica Bradesco Card: a portion of such fund is onlent to SOS Mata Atlântica Foundation.
- Capitalization Bond: SOS Mata Atlântica 300 Pé-Quente Bradesco and Corporate SOS Mata Atlântica Pé-Quente
- Environment financing: partnership with SOS Mata Atlântica Project for development of Future Forest Programs: tree seedlings will be planted for each vehicle financed by Bradesco through CDC or leasing, with a view to reducing the carbon emission effects on the atmosphere.
- Environment Working Capital: loan for corporate clients engaged in the social development and environment preservation.
- Bradesco Infrastructure Investment Funds: securities fund traded by Stock Exchange, direct or indirectly related to the economy sectors deemed as infrastructure such as: logistics, concessionaries, sanitation, raw material suppliers, electricity, communications, transport types and heavy equipment industries.

c Strategy: Please detail the objectives and targets of the strategies you have undertaken or are planning to take to manage these risks and opportunities. Please include adaptation to physical risks.

A Corporate Climate Change Governance structure has been developed for the organization, including the topic approach by a senior manager formally appointed and by the Social-environmental Responsibility Policy in order to ensure the integration of the climate change aspects with the business operations, financial products and services and environmental risk analysis. The following actions are underway:

Greenhouse Gas Emission Inventory

Bradesco carried out its inventory of GHG emissions in 2006 based on the GHG Protocol methodology and ISO 14064 standard in two stages:

- the first stage for the scope of Cidade de Deus – Osasco, the group's main administrative center where most departments and around 15% of all staff are located, this inventory was externally audited by Fundação Vanzolini;

- in the second stage the scope was extended to the entire Bradesco Organization.

2007 Target: To carry out the inventory of the entire Bradesco organization and submit it to external audit.

Neutralization of Greenhouse Gas Emissions

Bradesco neutralized GHG emissions of its operations in Cidade de Deus – Osasco in 2006 by means of approximately 38,000 tree planting with Fundação SOS Mata Atlântica.

2007 Target: To neutralize GHG emissions of Bradesco Organization.

Environmental Risk Analysis – Climate Changes

Review of Credit Policy due to analysis of the global heating effects, such as, IPCC reports.

Carbon Credit – Business Opportunity

Advisory consultancy for clients to identify and develop CDM projects and marketing of carbon credit; 7 projects are underway in 4 clients and the result thereof must be the reduction of approximately 430.000 ton of CO₂e per year. Other 20 clients (approximately) have been discussing the climatic changes and carbon credit with Bradesco.

Client 1 – 140,000 tonnes CO2e/year (2 projects)
Client 2 – 30,000 tonnes CO2e/year (1 projects)
Client 3 – 60,000 tonnes CO2e/year (3 projects)
Client 4 – 200,000 tonnes CO2e/year (1 projects)

2007 Target: Delivery and disclosure of the product and feasibility of carbon credit use to secure loans or anticipated purchase of such credits.

- d** **Reduction targets:** What are your emissions reduction targets and time frames to achieve them? What renewable energy and energy efficiency activities are you undertaking to manage your emissions? (This question not required if answering Section B.)

The main greenhouse gas emissions by scope are:

Scope 1 – emission caused by the vehicle fleet;
Scope 2 – emission caused by electric power consumption;
Scope 3 - emission caused by the purchase of airline tickets.

Targets for 2007 for reduction of emissions:

Scope 1 – change of gasoline-powered vehicles for bi-fuel vehicles
Scope 2 – energy consumption decrease by 5%;
Scope 3 - emission in view of air ticket purchase.

2 Greenhouse Gas Emissions Accounting¹

a Methodology: Please provide the following information on your company's emissions measurements:

- i The accounting year used to report GHG² emissions.
- ii The methodology by which emissions are calculated.
- iii Whether the information provided has been externally verified or audited.
- iv An explanation for any significant variations in emissions from year to year, e.g. due to major acquisitions, divestments, introduction of new technologies, etc.

A corporate inventory of direct and indirect emissions of greenhouse gases shows a new environmental, operational and service perspective associated to the corporation.

Among the several protocols and rules available to carry out inventories of this nature, rule ISO 14064 [ISOa, ISOb], GHG Corporate Protocol of the World Business Council for Sustainable Development and World Resources Institute [GHGp] was mainly used, as well and the Verification Protocol of International Emissions Trading Association [IETA].

Bradesco carried out its inventory of greenhouse gas emissions in two stages:

1. First Stage: Inventory of Cidade de Deus, Bradesco Organization's largest corporate administrative center, located in the city of Osasco, state of São Paulo, where nearly 10,000 employees and 5,000 third parties work at.

The purpose of this stage was to know the methodology, have a consistent inventory, externally audited, and neutralize its GHG emission of 2006 (Jan to Dec). The inventory was audited by the audit firm Fundação Carlos Alberto Vanzolini and the emissions were neutralized by the tree plantation under SOS Mata Atlântica project.

Cidade de Deus (Neutralized):

- Direct emissions = 2,780 tCO₂ in 2006;
 - Executive light vehicles 875.7 tCO₂
 - Air conditioning refrigeration 819.76 tCO₂ eq
 - Diesel combustion generators 65.17 tCO₂
 - Executive aircrafts 976.68 tCO₂
 - restaurants LPG 42.80 tCO₂
- Emissions from purchased electricity = 9,780 tCO₂ in 2006;
- Indirect emissions = 10,217 tCO₂ in 2006.
 - chartered bus personnel transportation = 107.14 tCO₂
 - transportation of documents through motorcycle = 83.62 tCO₂
 - air travel employees = 10,026.31 tCO₂

2. Second Stage: Bradesco Organization's Inventory

Purpose to carry out the inventory of its emissions of 2006 (Jan to Dec) and implement data collection and control systems to improve the inventory of 2007 (Jan to Dec).

Target for 2007:

- Improvement in Bradesco Organization's inventory
- Organization inventory externally audited
- Neutralization of GHG emissions of the Organization

- b Scope 1 and 2 of GHG Protocol:** Direct and Indirect GHG emissions and electricity consumption. Please complete the table below for tonnes CO_{2e} emitted and electricity consumption:

	Globally	Countries of Annex 2
Scope 1 activity tonnes CO _{2e} emitted		3,349 tCO _{2e}
Scope 2 activity tonnes CO _{2e} emitted		75,720 tCO _{2e}
MWh of purchased electricity		346,339 MWh
Percentage of purchased MWh from renewable		See obs.

Bradesco Organization:

1. Direct Emissions (Scope 1)

1.1 Executive Ground Transportation

The calculation was carried out considering company-owned and leased fleets, based on the distance in Km traveled by the vehicles, fuel type (gasoline, diesel and alcohol) and engine size (small vehicles (1.4 l or less), medium (from 1.4 l to 2.1 l) and large (more than 2.1 l)).

Type of vehicle	Emission [tCO ₂]
gasoline small	189,685
gasoline medium	222,395
gasoline large	310,610
alcohol small t	142,063
alcohol large t	3,450
diesel large	7,494
Total	875.7

Note: t emissions are calculated, even though from a renewable source.

1.2 Electricity Generators

The electrical generators are, when started up, run on diesel oil. All one hundred and fifty-one (151) generators were considered and are distributed as follows: Cidade de Deus, Administrative Buildings, Branches distributed in Brazil, Centers, Finasa, Scopus, Bradesco Foundation (administrative building and schools), HPEV (Hospital Edmundo Vasconcelos).

The total annual consumption of diesel for generators pertaining to the Group was 194,232 L, 107,832 l of which for periodical consumption and 86,400 l for occasional consumption.

Total Emission = 510.830 [tCO₂].

1.3 LPG Consumption

The Liquefied Petroleum Gas (LPG) was consumed in restaurants at Cidade de Deus, Alphaville and Scopus.

The total consumption was 28,266.28 [Kg] of LPG, totaling an emission of 87.09 [tCO₂].

1.4 Private Air Transportation

Such information was provided by the control department from the system managed at the Cidade de Deus hangar that registers the supplying bills per report issued for each flight. Even if the supplying is carried out outside the bank hangars or the aircraft leased is used by executives, the fuel consumption is registered in the system.

The consumption of 386,417 l of QVA - jet kerosene relating to 3 Helicopters and the Jet was considered, thus totaling the emission of 976,682[tCO₂]

1.5 Refrigeration Systems

Refrigeration gases used in air conditioning systems. The emission actually occurs in the event of gas escape to the atmosphere as a result of defect in the separate compression system in the air refrigerators. The measurement is carried out through restoration volumes (re-supply) managed by subcontracted companies. The fugitive emission of each HFC (134A and 407C) represented 0.002% of TR per month, totaling an emission of 819.76 tCO₂.

1.6 Natural Gas

The total consumption of Natural Gas was 40,026 [M3] in the refectories and restaurants for preparation of food and water heating systems (pools) in the units: Bradesco Seguros (RJ) and Nova Central, totaling an emission of 78.61 [tCO₂].

2. Indirect Emission from Electricity Use (Scope 2)

The information collected in the control system of Bradesco is based on energy bills from electrical utilities to the company, in units of kWh. The companies Tempo Serviços, Bradesco Seguros, Bradesco Capitalização, Bradesco Vida e Previdência, Bradesco Saúde, Fundação Bradesco and Seguradora Finasa, were not included in the calculation of emissions of CO₂ per electricity consumption.

For ascertainment of the emissions, the consumption was divided into two groups per region: North and Northeast; Middle-west, Southeast and South regions. The electricity consumption was 346,338,819 [kWh], totaling an emission of 75,719.45 [tCO₂].

c **Scope 3 of GHG Protocol:** Other Indirect GHG emissions. Where feasible please provide estimates for the following categories of emissions:

- i Use/disposal of company's products and services.
- ii Your supply chain.
- iii External distribution/logistics.
- iv Employee business travel.

The total indirect emission was 68,678.34 tCO₂ (Scope 3).

1. Subcontracted Buses Used by Employees

Employee transport offered by Bradesco to its employees is carried out by subcontracted companies. There are 40 lines, 38 of which in São Paulo, 1 in Rio de Janeiro and 1 between Bauru and Pederneiras traveled 2,328 [km/day] with diesel motor of greater than 2,000cm³, totaling an emission of 116.77 [tCO₂].

2. Taxi Service Transportation

Transport carried out by taxi service provided to employees in business travel. Such expenses are entered into the System, Applications and Products for data processing (SAP) as from June 2006. This system is under implementation in branches and operation in departments located in the organization's head office – Cidade de Deus – Osasco – SP. The goal is the application of the project in the whole Organization until the end of 2007.

As it is not possible to identify the taxi fare charge period (*bandeira*) used by the employees, the distance in km was considered in *bandeira* "1" (lowest fare) and medium gasoline vehicles (engines from 1.4 L and 2.1 L), by conservative approach. It is estimated that the distance traveled in Km from June to December 2006 by the department was 816,680 [Km], totaling an emission of 155.17 [tCO₂].

3. Employee Air Travels

All air travels carried by employees were considered and accounted for at the air distance in km for each route, totaling an emission of 10,026,31 [tCO₂]. The travels (flight routes) were divided into three groups:

- short distance (500 km or less) – total 18,754,761 [km]

- medium distance (from 500 to 1600 km) – total 30,954,511 [km]
- long distance (more than 1500 km) – total 31,805,009 [km]

4. Motorcycle Courier Transportation

The calculations are based on certain percentage of the amounts of the contracts related to such services regarding the expenses incurred with fuel. The price suggested for gasoline is provided by the National Petroleum, Natural Gas and Biofuel Agency (ANP). For the service provided by 180 motorcycles, the consumption was approximately 208,723.21 l of gasoline, totaling an emission of 402.75 tCO₂

5. Shared Pouch Transportation

Subcontracted service for transport of checks, correspondences and documents in which the service providers render services to various companies, thus carrying out an integrated logistics among all the corporations. Such project expedites deliveries, reducing individual costs and, consequently, the emissions of each participant. The pouches are delivered by ground and air.

The air services were divided into vehicles using QVA (Jet Kerosene) fuel and Aviation Gasoline. It is estimated that the QVA consumption was 1,377,199 l and the consumption of Aviation Gasoline 1,482,932 l.

The expenses incurred with ground transport were set apart per heavy diesel vehicles and light vehicles, deemed as 100% gasoline, by conservative approach, since they represent almost all of this type. It was estimated that the diesel consumption was 32,750 l and the gasoline consumption was 598,292 l.

The total emission from Shared Pouch Transportation was 7,984.61 [tCO₂].

6. Cargo Transportation

The cargo transportation is carried out by subcontracted companies and provides all group units with volumes of various materials required such as: Graphic Materials, Back Office, Printed Matter, Furniture and Equipment.

The freights carried out by diesel vehicles represent more than 95% of the contract amounts. Air and nautical vehicles were not considered in view of their minor importance, less than 1% of the cargo operations and absence of data. It is estimated that 3,528,729 l of diesel was consumed, totaling an emission of 9,280.56 [tCO₂]

7. Cash Transportation

The cash transportation by diesel armored vehicles is carried out by subcontracted companies that provide delivery services, on a shared basis, to Bradesco, its branches, PABs, PAEs, PACBs and BDNs.

It is estimated that 15,479,917 l were consumed in 2006, totaling an emission of 40,712.182 [tCO₂].