

# Privately-owned Banks and Climate Change

An analysis of the strategies and practices of brazilian privately-owned banks to manage climate change challenges



British Embassy  
Brasilia

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# Executive Summary

STUDY'S AIM

This study is aimed at making a diagnosis and a gap analysis of the practices of leading Brazilian privately-owned banks to reduce the climate impact of their operations and to promote a low-carbon economy. This study complements the previous one, 'Brazilian State-owned Banks and Climate Change - An analysis of the strategies and practices of brazilian state-owned banks and regional funds to manage climate change challenges,' published in 2010.

The two studies provide an overview of strategies and practices adopted by the Brazilian financial sector in relation to climate issues. It is expected that these results may help to enhance the strategies of the institutions, as well as develop public policies aimed at mitigating and adapting climate change.

STUDY'S OBJECT

The object of this study are the climate change strategies and practices being implemented by the top privately-owned financial institutions in the country: Bradesco, HSBC, Itaú Unibanco and Santander. It is worthwhile pointing out that the four institutions are classified as commercial banks, however, HSBC and Santander are banks based abroad and have different processes, in particular related to the decision-making and strategy-defining process.

CONTEXT

At the UN Conference on Climate Change held in Copenhagen in 2009, the political leaders stressed their strong political will to tackle climate change with urgency. Within the context of meaningful mitigation actions and transparency in relation to investments, the countries agreed on jointly mobilizing USD 100 billion per year by 2020 to meet the needs of developing countries. The Advisory Group concluded that it is possible to achieve this target but agrees that it will be a huge challenge. These resources will come from a wide variety of public and private, bilateral and multilateral sources, including alternative sources of funding, the expansion of existing sources and an increase in private flow. Given the importance of the financial privately-owned sector in the context of coping with climate change, it is of extreme importance for this sector to make its best efforts to reduce operational and financed greenhouse gas emissions.

It is worth noting that, the financial institutions analyzed in this study, plus the state-owned banks and regional funds analyzed in the previous study, represent around 80% of the total credit offer of the Brazilian Financial System. Therefore, the diagnosis hereby is broad enough and reflects a significant part of the loans granted in Brazil.

METHODOLOGY

The methodology of this research combined (i) primary sources: Onsite and telephone interviews with the analyzed institutions; evaluation and validation workshop; and structured questionnaire with (ii) secondary sources: management reports of surveyed institutions and of international references.

The preparation of the questionnaires was based on major global initiatives that provide guidelines for the assessment of commitments and practices under the "Climate" topic: Climate Principles, Carbon Disclosure Project (CDP), Bank Track and Companies for Climate (Business for the Climate - EPC).

The assessment of operational (internal and suppliers) and financed (by clients who contracted credit and/or made investments)

GHG emissions was structured based on the four aspects suggested by the CDP:

- **Strategic awareness on climate change**
- **Specificity and ambition of carbon reduction goals**
- **Ability to conduct and publish inventories**
- **Ability to implement practices, including the governmental aspects, the team, the tools, and the commitment to the value chain.**

The preliminary results were evaluated and validated at a workshop in Sao Paulo on August 31, 2011 in the presence of representatives of privately-owned and state-owned banks, experts and non-governmental organizations.

RESULTS

We have highlighted four critical aspects in this study and have included advances, challenges and recommendations to them:

**1 Corporate Strategy** – Senior management is formally committed and involves strategic areas on the subject, in addition to the widespread use of methodologies for the calculation of operational emissions. However, the involvement of senior management is still low in implementing practices towards low-carbon economy, that include the establishment of a common methodology for the calculation of financed emissions and the establishment of absolute reduction targets.

ADVANCES	CHALLENGES	RECOMMENDATIONS
<ul style="list-style-type: none"><li>➤ <b>Formal corporate commitment</b></li><li>➤ Involvement in strategic areas</li><li>➤ <b>Cross disciplinary and cross functional work teams</b></li><li>➤ <b>Engagement</b> actions, especially related to <b>training and orientation</b></li><li>➤ Adopt of <b>common methodology</b> for calculating <b>operating emissions</b> (GHG Protocol)</li><li>➤ Adopting methodologies for reporting and engagement with stakeholders (GRI, CDP, etc.).</li></ul>	<ul style="list-style-type: none"><li>➤ <b>Low involvement of senior management</b> in implementation</li><li>➤ <b>Clear decision-making process</b>, starting at senior management and spreading through every process, reaching the level of products offered to the customer</li><li>➤ <b>Unawareness</b> of the corporate aggregate impact, including inventory of financed emissions</li><li>➤ <b>Absolute targets, often not established</b></li><li>➤ <b>Greater transparency in relation to financed emissions</b> (the demands of civil society)</li></ul>	<ul style="list-style-type: none"><li>➤ Attribute responsibility to senior management in the monitoring of a <b>transversal strategy</b> for the theme in the corporation</li><li>➤ <b>Development of common methodology</b> for the preparation of <b>an inventory for financed emissions</b></li><li>➤ <b>Establishment of absolute targets</b> for the reduction of operational emissions and, mainly, of financed emissions</li><li>➤ <b>Training and capacity building for the creation of internal multipliers</b> within the financial institutions (from senior management to sales force)</li><li>➤ <b>Clear and effective</b> communication of strategy and practices of the financial institution, especially in relation to financed emissions</li></ul>

**2 Mapping climate change risks in credit** – Despite the financial institutions having well structured social-environmental credit risk areas, with well established policies and procedures, improvements towards understanding climate-related risk in the financial sector are still needed.

ADVANCES	CHALLENGES	RECOMENDATIONS
<ul style="list-style-type: none"><li>➤ Areas of <b>social and environmental risk management</b>, consisting of cross functional teams, trained to perform complex analysis of social-environmental risk before approving credit financing</li><li>➤ <b>Social and environmental risk credit policies</b> that can be developed into specific <b>formal procedures</b></li></ul>	<ul style="list-style-type: none"><li>➤ <b>Understand and quantify the risk of climate change</b> for a financial institution<ul style="list-style-type: none"><li>➤ <b>Little understanding and knowledge regarding adaptations involved with climate change</b></li></ul></li><li>➤ <b>Availability of information</b> to better analyze climate change risks</li></ul>	<ul style="list-style-type: none"><li>➤ <b>Improve information systems</b>, including climate change risks in <b>contractual terms and in rating calculations</b> among others<ul style="list-style-type: none"><li>➤ <b>Create or enhance centers of excellence in applied research</b> focusing on climate change risks for the financial sector</li></ul></li><li>➤ <b>Develop procedures and monitoring systems</b> for approved financing that enables risk evolution to be monitored</li></ul>

**3 Products and services** – Despite institutions already offering products of their own that include climate change considerations, the representativeness of these products and services is still low and few are subject to monitoring processes. Besides, we were unable to find products and services aimed at actions to adapt to climate change, which are critical to responding to the magnitude of the challenge.

ADVANCES	CHALLENGES	RECOMENDATIONS
<ul style="list-style-type: none"><li>➤ Transference of specific credit lines of the National Social and Economic Development Bank (BNDES) to promote low-carbon economy</li><li>➤ Offering of <b>own products</b> with social-environmental additionalities and those related to climate change in several business areas</li></ul>	<ul style="list-style-type: none"><li>➤ <b>Low use</b> of specific BNDES lines<ul style="list-style-type: none"><li>➤ <b>Low representativeness</b> of products related to the issue as compared with the total amount of products and services offered</li></ul></li><li>➤ Absence of products aimed at the <b>adaptation</b> of climate change (if they exist, they are not identified as such)<ul style="list-style-type: none"><li>➤ <b>Result monitoring</b></li></ul></li></ul>	<ul style="list-style-type: none"><li>➤ Ensure <b>greater effectiveness of products</b> and services aimed at low carbon economy</li><li>➤ <b>Re-evaluate</b> the less attractive products, create <b>incentives</b> for customers and <b>train</b> the sales team</li><li>➤ <b>Improve systems</b> to simplify the credit granting process (together with other institutions)<ul style="list-style-type: none"><li>➤ <b>Develop and provide products</b> for climate change adaptation</li></ul></li><li>➤ <b>Perform monitoring procedures</b> to verify the effectiveness of products and services targeted at climate change</li></ul>

**4 Other business areas** – Transversal methodologies that address social and environmental issues, including climate change, in the areas of asset management, private equity and insurance, have begun to be adopted and implemented. However, cross-functional measures aimed at combating climate change in other business areas, such as proprietary desks, international trade, private banking, mergers and acquisitions, are still lacking.

ADVANCES	CHALLENGES	RECOMENDATIONS
<ul style="list-style-type: none"><li>➤ <b>Adoption and implementation of cross functional methodologies</b> that address social and environmental issues (including climate change) in the areas of asset management, private equity and insurance.</li></ul>	<ul style="list-style-type: none"><li>➤ Lack of initiatives related to sustainability in business areas such as proprietary desk, international trade, private banking, mergers and acquisitions</li></ul>	<ul style="list-style-type: none"><li>➤ Organization of working groups, with short-term goals and monitoring indicators, to discuss global best practices, development of <b>joint implementation methodologies and full integration into business areas that are already underway</b></li><li>➤ Start moving into other business areas that still do not address the issue.</li></ul>

FINAL REMARKS

After analyzing the actions and strategies related to climate change adopted by the four major financial institutions in Brazil, it can be concluded that the matter is currently considered a priority and that a formal clear corporate commitment is in place, confirmed by the strategies underway in several business lines of the institutions and in their respective decision-making processes. The engagement actions are also being developed at all the institutions, particularly with regard to the staff. However, improvements still need to be made.

There is still a lack of deeper and wider understanding of climate change risk for funding prior to its approval. It is important to first understand what climate change risks a financial institution faces, including, for example, how climate change can

affect the payment ability of customers who have been affected by new regulations, by market demands related to their emissions, or even physically due to natural disasters arising from climate change. The possibility that lenders will be held accountable for liabilities that have not yet been mapped but that will be in the future must also be taken into account. The understanding of this risk would enable the information systems to be enhanced, including climate change risks in contractual terms and in rating calculations, among others. However, the inherent difficulty to assess and quantify climate change risk is worth taking into consideration mainly because it is primarily a long-term risk. Considering the complexity of the issue and the awareness involved, it is important to begin the process of



modeling this risk within the context of the financial sector.

Taking into account the key points raised in this assessment, we recommend the sector to act on main six fronts, namely:

- **FINANCED EMISSIONS:** develop in partnership a methodology for measuring financed emissions to better understand the aggregate impact of the institution and to help the sector as a whole to avoid the adoption of different methodologies, hindering understanding and comparison. One possibility would be for the Brazilian Federation of Banks (FEBRABAN) to lead this initiative. One possible way to start the work in the short term, would be to estimate emissions by project, according to the strategy adopted by the IFC.
- **TRAINING:** training in-house teams so they are technically qualified to put into practice the strategy of these financial institutions with respect to climate change.
- **TRANSPARENCY AND DIALOGUE:** manage to clearly communicate the strategy and the practices of the financial institutions, especially with regard to financed emissions where the institution has more influence, discussing with stakeholders so that suppliers, customers and society in general are aligned with the financial institution, united with the objective of promoting a low-carbon economy.
- **RISKS AND OPPORTUNITIES:** create or enhance centers of excellence in applied research within financial institutions or in partnership (with governments or non-governmental institutions, among others) to broaden the understanding of the risks arising from climate change and the identification of business opportunities. These centers can help to understand the risks of climate change for the adaptation of financing and existing product lines, as well as to capture business opportunities in new markets. Due to the complexity of the issue, we suggest starting with matters that are currently visible, such as better

understanding the risks of extreme events due to climate change. Furthermore, we suggest improving availability of information, working with government and non-governmental organizations which often already have this information. Increasing dialogue, coordination, systematization and the dissemination of knowledge.

- **PRODUCTS:** improve the processes of creation and revision of products, giving them more representativeness so they can effectively promote low carbon economy. The products and services must be aligned to the objectives of state-owned banks, government sector plans and the internal goals of the institution. As such, the decision-making flow must be clear with strategic well-defined objectives, goals, actions and indicators. Given the difficulty to secure the importance of the products, we suggest focusing the review on products of greater demand and ease of implementation, such as energy efficiency projects that can bring positive results in the short term. As pointed out in the study of 'Brazilian State-owned Banks and Climate change', it is also essential to develop methodologies to assess the social and environmental additionality of a product. Although this monitoring may be costly and challenging, we suggest the creation of a partnership between state owned and privately-owned banks and the government, to use synergies and avoid the duplication of efforts in order to increase the chance of success.
- **OTHER BUSINESS AREAS:** fully integrate the issue of climate change to other business areas, especially the areas of insurance and asset management which have already initiated activities in the subject matter, through existing work groups and opportunities identified in the very centers of excellence for climate change of each institution. Lastly, start a movement in other business areas that have not yet started to address the issue.

### STUDY'S AIM

This study is aimed at making a diagnosis and a gap analysis of the practices of leading Brazilian privately-owned banks to reduce the climate impact of their operations and to promote a low-carbon economy. This study complements the previous one, 'Brazilian State-owned Banks and Climate Change - An analysis of the strategies and practices of brazilian state-owned banks and regional funds to manage climate change challenges,' published in 2010.

The two studies provide an overview of strategies and practices adopted by the Brazilian financial sector in relation to the climate issue. It is expected that these results may help to enhance the strategies of the institutions, as well as develop public policies aimed at mitigating and adapting climate change.

### STUDY'S OBJECT

The object of this study are the climate change strategies and practices being implemented by major private financial institutions in the country: Bradesco, HSBC, Itaú Unibanco and Santander. It is worthwhile pointing out that the four institutions are classified as commercial banks, however, HSBC and Santander are banks based abroad and have different processes, in particular related to the decision-making and strategy-defining process.

## METHODOLOGY

The methodology adopted in the preparation of this study was: (i) use of primary sources, based on onsite and telephone interviews with the target institutions; evaluation and validation workshop; and structured questionnaire, and (ii) use of secondary sources, including management reports from surveyed institutions and international references. It is important to point out that the methodology used was the same as the one used in the previous study, since the studies complement each other.

The questionnaires sent to the institutions are standard, with no differentiation between the banks and they include the operational and financed emissions assessment, as follows:

### QUESTIONNAIRE 1 (Appendix 2):

Evaluates the corporate commitment regarding climate change, beyond the management practices of internal and supplier emissions, such as the development of operational emission inventories and the establishment of targets for the reduction of GHG emissions. Also assesses opportunities for in-house and supplier engagement with low-carbon economy;

### QUESTIONNAIRE 2 (Appendix 3):

Assesses the GHG emissions management based on core activities (credit and investment) of financial institutions, as well as the availability of funds and products for the adaptation and mitigation of climate change, which represent the most significant volume of emissions of the financial sector and the longer term impacts. Also checks if the institution has a GHG inventory for financed emissions, monitoring processes for loan portfolio and the establishment of GHG reduction targets. Also identifies how the bank engages its clients and other players in relation to the relevant aspects of the transition to low-carbon economy.

The structure of the questionnaires is based on the four divisions suggested by the *Carbon Disclosure Project* (CDP), comprising:

1. Strategic awareness on climate change;
2. Specificity and ambition of the carbon emission reduction targets (in questionnaire 2, the alignment of the carbon reduction targets was considered versus the direct impact of their activity, as well as the customization of the tools and products);
3. Capacity to carry out and publish inventories;
4. Ability to adopt practices, including governance aspects, responsible and qualified team, monitoring instruments and commitment of supply chain (in this study, considered as “stakeholders’ engagement”).

In addition to these questionnaires, another more specific data request was sent, according to Appendix 4, with quantitative information related to product portfolios linked to climate change.

The preliminary results were evaluated and validated at a workshop held in São Paulo on August 31, 2011 in the presence of representatives of privately-owned and state-owned banks, non-governmental organizations and experts. The contributions collected in this process were incorporated to the study.

The questionnaires were developed from model-initiatives of institutions that propose guidelines for the assessment of commitments and practices under the “Climate” topic:

- **Climate Principles: initiative led by five financial institutions (HSBC, Credit Agricole, Munich Re, Standard Chartered and Swiss Re) to establish standards and best practices related to climate change impacts in all their services (loans, investments, advisory services and insurance);**
- **Carbon Disclosure Project (CDP): a non-profit organization that operates an information system on climate change. In 2010, more than 6,000 institutions measured and reported their GHG emissions through the CDP, which is the world’s largest climate change database of primary corporate information. Additionally, in its supply chain report, the CDP provides further analysis about the ability of an institution to commit itself to the issue of climate change;**
- **Bank Track: coalition of civil society organizations focused on monitoring the incorporation of social and environmental practices in financial sector activities worldwide. Proposes parameters for the sector in relation to climate change and monitors banking practices through a scoring system. Bank Track operates with a strict set of indicators, which explains the low scores awarded to institutions in the latest report;**
- **Group of Financial Institutions of the Bussines for the Climate (EPC): a work group established by FGV under the EPC Platform, of which one of the key objectives is the preparation of studies to subsidize business proposals of public policies on climate change for the financial sector.**

PRIVATE  
FINANCIAL  
SECTOR AND  
CLIMATE CHANGE

The important role of the private sector in the climate change dilemma is known worldwide and the number of initiatives aimed at spurring the development of a low-carbon economy has grown substantially. The financing of actions to mitigate climate change and adapt it is one of the most important aspects within the context of global efforts aimed at addressing this issue. The efforts of nations need to be leveraged to reduce greenhouse gas emissions and support sustainable development.

At the UN Conference on Climate Change (COP 15) held in Copenhagen (2009), the countries set a goal to raise USD 100 billion a year by 2020 to support mitigation and

adaptation activities in developing countries. These funds represent a good investment in a more secure, clean and healthy future for all the population, since we must undertake additional efforts to identify innovative sources of long-term financing. For this reason, a United Nations' Advisory Group on Climate Change Financing (AGF) composed of high-level specialists was formed to show how the target of USD 100 billion could be achieved (see Table 1).

The group concluded that the goal is challenging but achievable. Reaching the goal will certainly require a combination of existing, new sources and undoubtedly, an increase in private funds.

TABLE 1: AGF - ADVISORY GROUP ON CLIMATE CHANGE FINANCING

THE CHALLENGE AND THE RESPONSE

At the UN Conference on Climate Change held in Copenhagen in 2009, political leaders emphasized their strong political will to urgently combat climate change. Within the context of meaningful mitigation actions and of transparency in relation to the investment of funds, the countries agreed to the goal of mobilizing USD 100 billion per year by 2020 in order to meet the needs of developing countries. The Advisory Group concluded that it is challenging but feasible to meet that goal. Funding will need to come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance, the expansion of existing sources and an increase in private flows.

Internal mitigation commitments and the introduction of new public instruments based on carbon prices are important to raise climate financing, from both public and private source. Instruments based on carbon pricing are particularly appealing because they increase revenues and provide incentives for mitigation actions.

POTENTIAL SOURCES OF FUNDING

The Advisory Group identified potential funding sources and also analyzed the issues involved in the combination of instruments, including overlaps and interactions. A careful and rational use of public funds in combination with private resources can generate truly transformative investments. A key element to reach USD 100 billion a year is to keep the price per ton of carbon within the range of USD 20 to USD 25 (ton of CO<sub>2</sub> equivalent) in 2020. The higher the carbon price, the greater will be the increase in available revenue and the greater the effort to reduce emissions.

Based on this carbon price, the Advisory Group

pointed out some funding sources:

- **Auctions of emission allowances and domestic carbon taxes in developed countries with up to 10% of total revenues allocated for international climate action could potentially mobilize around USD 30 billion.**
- **Around USD 10 billion could be raised from carbon pricing international transportation.**
- **Up to USD 10 billion could be mobilized from the redeployment of fossil fuels subsidies in developed countries or from financial transaction tax.**
- **International private investment flows could generate between USD 100 billion and USD 200 billion of gross private capital flows. A carbon market of this scale could generate amounts within the range of USD 10 billion to USD 50 billion in net transfers.**
- **Multilateral development banks, in close collaboration with the United Nations system, should add an important multiplying factor and should leverage additional green investments. For every USD 10 billion in additional funds, these banks could deliver between USD 30 billion and USD 40 billion in gross capital flows promoting private capital flows. Net flows from multilateral development banks would be USD 11 billion. The ability of these banks should be strengthened through additional resources over the next ten years.**
- **Direct budget contributions from governments continue to play an important role in overcoming this great challenge.**

Several of the aforementioned sources could be made operable in a relatively short period of time, especially those from domestic public sources. However, the flow of investments from private sources will depend on a combination of government policies and the availability of risk-sharing instruments.



The Brazilian government has acted on several fronts in an attempt to tackle this global challenge. After voluntarily establishing, in the Brazilian National Policy on Climate Change (Política Nacional de Mudanças Climáticas), a reduction target of 36% to 39% of emissions of GHG until 2020 (based on 2005) and drawing up the Brazilian National Plan on Climate Change - PNMC (Plano Nacional sobre Mudanças

Climáticas), the country regulated the National Fund on Climate Change (known as the “Climate Fund”) for the financing of projects aimed at reducing the effects of climate change and at adaptation actions.

In addition, the government is developing the Sector Plans that will establish action plans to fight climate change, as provided in Law no. 12.187/2009, which established the

PNMC. In the 1st half of 2010, the Federal Government defined five Work Groups coordinated by the Chief of Staff aimed at integrating the actions needed for the process of preparing the Sector Plans for the Mitigation and Adaptation of Climate Change, which are the Plans for the Prevention and Fighting of Forest Fires in the biomes of the Amazon and Cerrado regions and for the Energy, Agriculture and

Steel Industry sectors, as shown in Table 2. It is worth mentioning that the government of São Paulo State regulated the State Policy on Climate Change, which provides a 20% cut in GHG emissions by 2050 in São Paulo, a target calculated based on the estimate of the amount emitted in 2005. As can be seen above, the issue of climate change has gained increasingly more importance in the scope of the public sector.

## TABLE 2: GOVERNMENT SECTOR PLANS - AMAZON, CERRADO REGION, ENERGY, AGRICULTURE AND STEEL

The five plans of the Government related to the activities that meet commitments taken at Copenhagen agreement are in the conclusion stage. The other sectors, established by Law 12.187/2009 (transports; processing industry and durable consumer goods; fine and base chemical industry; pulp and paper; mining; construction; and healthcare) will be detailed based on the completion of the first ones, considered to be the priorities.

The main measures proposed in the Energy Sector Plan, until 2020, are:

- **Expand domestic ethanol supply from 22.8 billion liters in 2009 to 77.2 billion liters in 2020**
- **Keep the proportion of 5% biodiesel in the diesel oil mix offered in the domestic market (supply of 3.9 billion liters of biodiesel in 2020);**
- **Expand by approximately 40,000 MW the hydroelectric complex, mainly the first plant of the hydroelectric complex on Tapajós River (São Luiz and Jatobá), 8,400 MW (to be bidden). Expand by more than 17,500 MW the generating capacity of alternative sources, especially through the construction of 7,610 MW in wind farms, 6,180 MW in biomass plants and 3,790 MW in small hydroelectric plants;**
- **Intensify actions in the area of energetic efficiency, maintaining and expanding existing programs and initiatives in order to:**
- **Reduce 4.4% of projected electricity consumption for 2020 (to generate savings equivalent to a hydraulic power plant of 7,600 MW)**
- **Reduce 5.2% of projected consumption for 2020**

**of fossil fuels in industry (savings equivalent to 9.3 million tons of oil equivalent, or 194 thousand barrels of oil equivalent per day).**

To put this plan into action, a series of credit lines aimed primarily at encouraging energy efficiency and developing renewable energy are already available. The promotion of efficiency in energy transmission, distribution and consumption can rely on credit lines available from BNDES, Caixa Econômica Federal and also from the funds Northeast Constitutional Fund (Fundo Constitucional do Nordeste) and Revaluation General Reserve (Reserva Geral de Reavaliação). With regard to the expansion of the renewable energy supply, there are currently credit lines available from BNDES, Caixa Econômica Federal and Banco do Brasil, as well as from the Northeast Constitutional Fund (Fundo Constitucional do Nordeste), sector funds and another fund managed by Eletrobrás known as “Energy Development Account” (Conta de Desenvolvimento Energético).

The commitments of the agriculture sector plan target actions that should lead to a reduction in emissions projected until 2020, between 133 to 166 million tCO<sub>2</sub>, and through the adoption of the following activities:

- 1. Recovery of Degraded Pastures: recover an area of 15 million hectares of degraded pastures through proper management and fertilization;**
- 2. Crop-livestock-forest (ILPF) integration: increase the area with the ILPF system by 4 million hectares;**
- 3. No-Tillage Farming System (SPD): expand the use of no-tillage farming by 8 million hectares;**

- 4. Biological Nitrogen Fixation (BNF): expand the use of biological fixation by 5.5 million hectares;**
- 5. Encourage reforestation in the country by expanding the Planted Forest area, which is currently aimed at the production of fibers, wood and pulp, by 3 million hectares; and**
- 6. Expand the use of technologies for the treatment of 4.4 million m3 of animal waste for energy and organic compost production.**

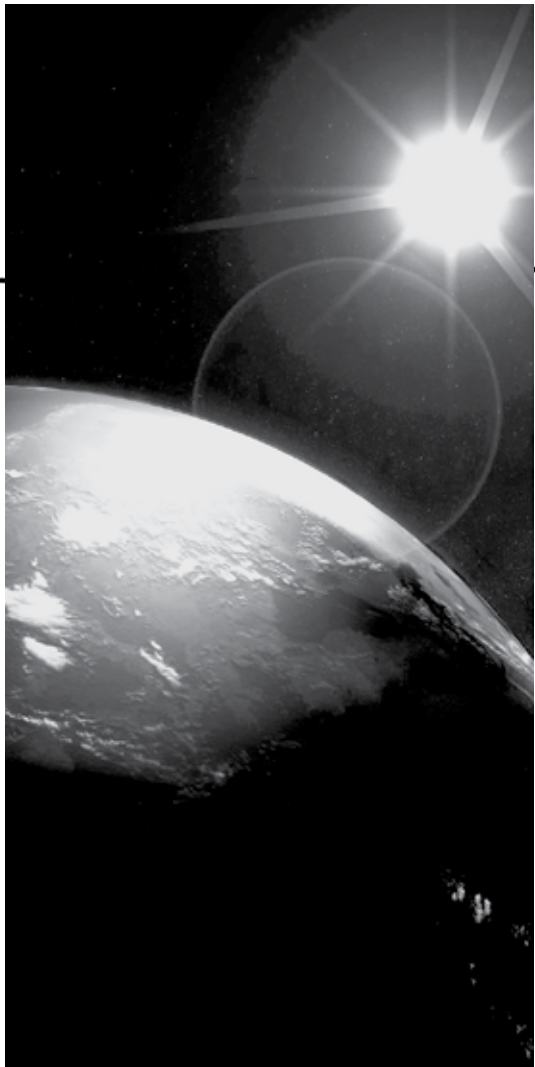
In the agriculture sector, BNDES, together with Banco do Brasil, has a BRL 3.1 billion budget BRL for the 2011/2012 crop aimed towards the Low-Carbon Agriculture program (Agricultura de Baixo Carbono -ABC). In addition, there are several specific lines aimed at increasing the productivity of underused, degraded and abandoned areas, avoiding the opening of new areas and the environmental regulation of rural properties. BNDES and constitutional funds support the environmental licensing of agrarian reform settlements, natural resource management and technical assistance, and rural extension.

The Action Plan for prevention and control of deforestation in the Amazon region has three key elements: (i) Land and Territorial Planning, (ii) Environmental Monitoring and Control, (iii) Fostering Sustainable Production Activities. In addition, it aims at reducing by 80% deforestation in Legal Amazon by 2020. When it comes to the Action Plan for the Prevention and Control of Deforestation and Burning Activities in the Cerrado region – PPCerrado, the goal is to reduce deforestation by 40% by 2020, in addition to addressing the following issues: (i) Promoting Sustainable Production Activities, (ii) Monitoring and Control, (iii) Protected Areas and

Land Management, as well as the transversal topic of Environmental Education.

Under the scope of forests, Amazon and Cerrado regions, there are two actions that receive funding from various financial institutions: recovery of degraded areas in Permanent Preservation Areas (APPs) and Legal Reserves, creation and consolidation of protected areas (Conservation Units and Indigenous Lands) for the preservation of socio-biodiversity conservation and the sustainable use of natural resources. For these two actions, there are lines available from BNDES, the North Constitutional Fund (Fundo Constitucional do Norte), the Center-West Constitutional Fund (Fundo Constitucional do Centro Oeste) and the Northeast Constitutional Fund (Fundo Constitucional do Nordeste), as well as from the Amazon Fund (Fundo Amazônia), which has contracted projects equivalent to BRL 191 million until August 2011. Other actions proposed in the sector plans are: the encouragement of sales and the consumption of products of socio-biodiversity and the fostering of forest management of native species that receive funds from the Amazon Fund (Fundo Amazônia) and the constitutional funds, through the Pronaf Florestal, FNO Amazonas Sustentável and FNE Cresce Nordeste lines.

Lastly, the steel mill sector plan is based on defining public policies that encourage the use of sustainable charcoal deriving from planted forests for use in metallurgy in order to: (i) reduce emissions; (ii) increase the use of charcoal, a renewable resource, as a thermal reducer in the production of pig iron; and (iii) increase the competitiveness of Brazilian iron and steel industry within the context of low-carbon economy.



The public financial sector, together with federal, state and municipal governments has acted on this front through the Banco do Brasil, Caixa Federal, BNDES and the Constitutional Funds, which together represent 40% of total loans granted in the country, according to the study published by the Getulio Vargas Foundation in 2010, with the support of PNUMA and the British Embassy, ‘Brazilian state-owned Banks and Climate Change – An analysis of the strategies and practices of Brazilian state-owned banks and regional funds to manage climate change challenges,’ published in 2010.

TABLE 3: CLIMATE FUND

Coordinated by the Environment Ministry (MMA), the Climate Fund represents an important step for Brazil to achieve its commitment of diminishing its impact on Earth’s climate. The Fund’s resources will be used to finance projects for mitigation and adaptation to climate change, being a world’s pioneer, since its resources come from the special participation in profits of oil productive chain..

The Fund Management Committee, composed by representatives of government, scientific community, entrepreneurs, employees and non-governmental organizations, has a budget of BRL 238 million in 2011 to be allocated as follows:

- BRL 204 million - loans and financing to the productive area, granted by BNDES.

- BRL 34 million - grants for research projects, mobilization and impact assessments of climate change, transferred to states and municipalities by agreements and terms of cooperation, managed by the Environment Ministry.
- Actions supported by the fund will be:
- Fighting desertification;
  - Education and training actions;
  - Climate research and impact assessments;
  - Development of technology inclusion;
  - Policymaking;
  - Support for sustainable production chains; and
  - Payment for environmental services.

TABLE 4: STUDY- BRAZILIAN STATE-OWNED BANKS AND CLIMATE CHANGE (2010)

RESULTS

Three critical aspects in the position of the public financial sector (BNDES, CEF, BB and Constitutional Funds) in relation to climate change were pointed out:

1. Despite awareness of the topic, there are great challenges to formulate a strategic vision that includes climate change in the institutions. Senior management’s direct commitment to this topic is low, which would be fundamental to make sure strategies and practices developed would be able to respond to the magnitude of this challenge – as well as the design of products, monitoring and evaluation tools;
2. The effectiveness of products and tools designed to promote a low carbon economy is questionable.

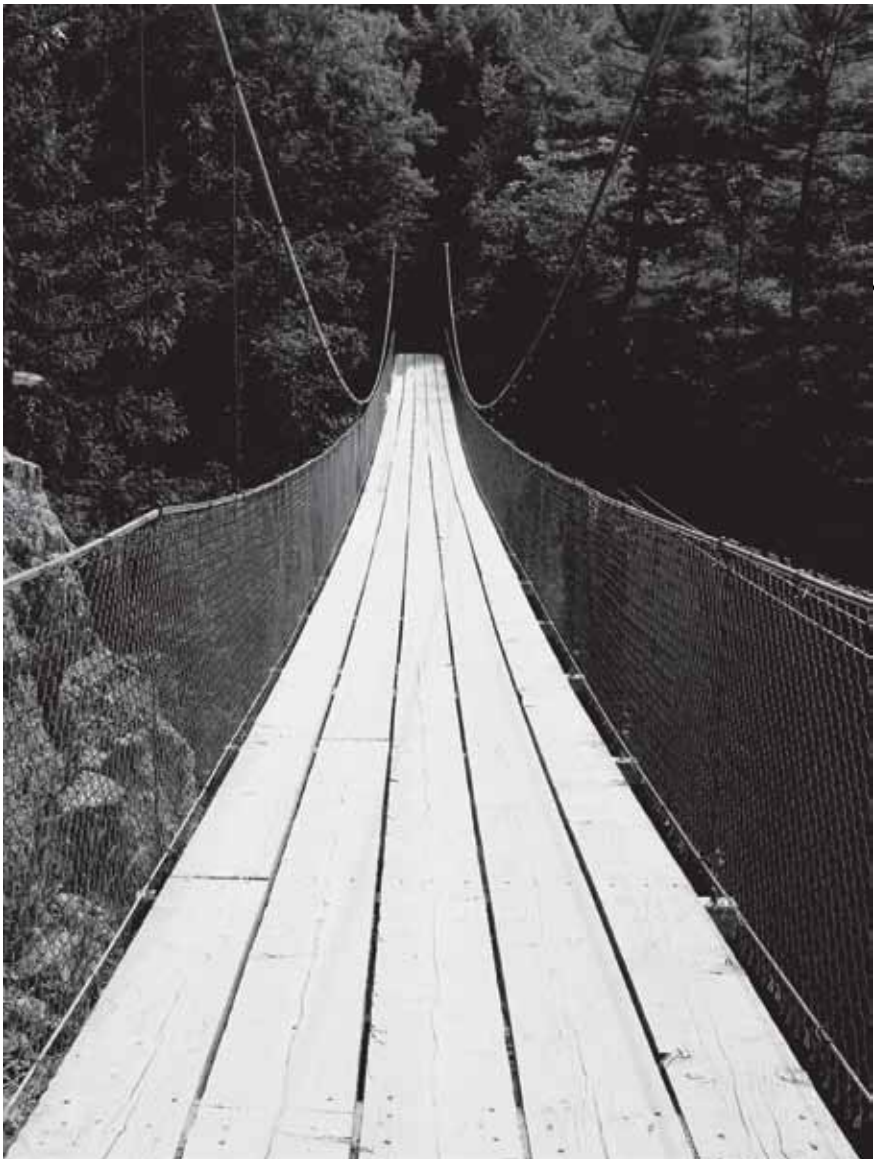
These especially designed products have a low disbursement rate in relation to the institution’s portfolio, both in terms of allocation of resources and demand. Traditional products may cater for clients’ emissions reduction needs, but demand monitoring tools to verify their environmental additionality and positive impact

3. Solutions for adaptation and vulnerability to climate change are opportunities that have so far been little explored by companies. Initiatives promoted by state-owned financial institutions mapped in the study are mostly associated with the mitigation4 of climate change. Few experiments were found that regard adaptation and the vulnerabilities that Brazil shows due to the impacts of climate change.

However, the role of the private financial sector in line with the guidance provided by the study AGF Challenge and Response (see Table 1) on the importance of joint efforts by public and private sectors, with the same focus for the optimization of efforts in the fight against climate change, is still necessary and essential.

In this context, the purpose of this study is to investigate and analyze how the private financial sector in Brazil has positioned itself in relation to climate change, in addition to the study “Brazilian State-owned Banks and Climate Change”. Therefore,

when considering the assets and the credit ability of the largest players in the privately-owned banking sector in Brazil (Bradesco, HSBC, Itaú Unibanco and Santander) as well as the largest state-owned banks analyzed in the previous study, a panorama emerges that corresponds to 80% of the total of assets as well as of the ability to provide credit of the National Financial System, as shown in the graph below. As such, the analysis hereby is considered broad enough and translates a significant part of the credit capacity of the country.

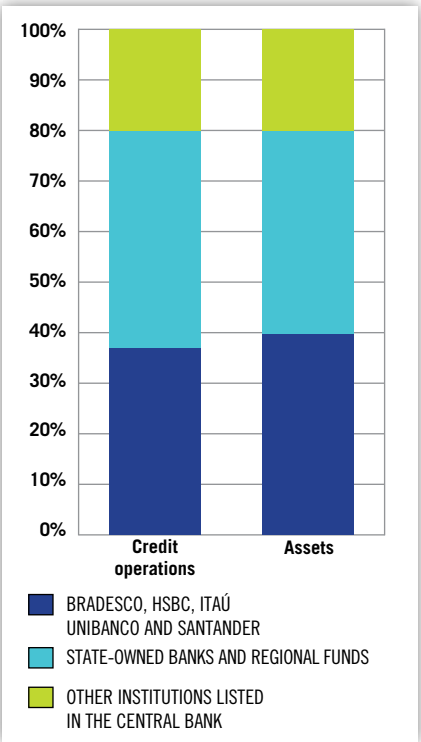


astly, in addition to climate change risk, the private sector in this scenario has many opportunities to develop a low-carbon economy through the initiatives described in the following chapters.

BANKS	LOANS (BRL)	TOTAL ASSETS (BRL)	NET EQUITY (BRL)	AMOUNT OF BRANCHES
BRADESCO	218.224.270	607.889.454	53.019.328	3.684
HSBC	45.457.588	144.554.014	8.269.635	868
ITAÚ UNIBANCO	259.585.323	768.663.512	67.111.026	3.790
SANTANDER	153.629.594	412.042.101	65.196.894	2.426

SOURCE: Banco Central do Brasil, 2011 June.

GRAPHIC 1: NATIONAL FINANCIAL SYSTEM



SOURCE: Banco Central do Brasil, 2011 June.



## BRADESCO

### HIGHLIGHTS

- Net income in the second quarter of 2011 was BRL 2.7 billion
- Brazil's third largest bank in assets
- Sixth largest bank in the world valued at USD 18,678 million in January 2011 (Brand Finance)
- 98,317 employees
- 61.7 million customers
- One of the largest banks in Latin America
- Latin America's largest insurer
- Brazil's most sound bank and the eighth strongest in the world (Bloomberg News)
- Market value of BRL 111,770 million in June 2011
- Loan portfolio of BRL 319.8 billion in June 2011

### EXPANDED CREDIT PORTFOLIO

	BRL Million			% Variation	
	Jun.11	Mar.11	Jun.10	Trim.	12M
Large Companies	103.404	98.366	83.638	5,1	23,6
Other Transactions with Credit Risk-Commercial Portfolio (1)	21.473	19.678	13.826	9,1	55,3
LARGES COMPANIES – OVERALL	124.877	118.044	97.464	5,8	28,1
MICRO, SMALL AND MEDIUM-SIZED COMPANIES	92.010	87.876	72.478	4,7	26,9
INDIVIDUALS	102.915	100.200	89.780	2,7	14,6
EXPANDED CREDIT PORTFOLIO TOTAL (2)	319.802	306.120	259.722	4,5	23,1

SOURCE: Bradesco



**B**radesco, founded in 1943, is currently a multiple bank and one of Brazil's leading private-sector banks. It offers a wide range of banking and financial products and services in Brazil and abroad, for individuals as well as small and medium companies, corporations and national and international institutions. In its strategic positioning, Bradesco aims at results that contribute to a more egalitarian society and the preservation of the environment.

**SOCIAL-ENVIRONMENTAL STRATEGY**

Sustainability is based on three foundations: Sustainable Finance, Responsible Management and Social-environmental Investments. The bank's sustainable initiatives are assessed by an Executive Sustainability Committee, which meets every quarter, consisting of a member of the Board of Directors, executive officers and department heads.

The matter of climate change began to be evaluated in a strategic and structured manner in 2009. The Strategic Planning Department incorporated the issue into their analysis to identify impacts, risks and opportunities for the Bank. In addition, work groups were created to improve dialogue between internal managers and enhance information management. One of the groups was aimed at climate change and its key elements are representatives of the sustainability area.

In 2010, the organization joined the PRI (Principles for Responsible Investments) and also joined the Carbon Efficient Index. For the fifth consecutive year, Bradesco is included in the Dow Jones Sustainability Index and the Corporate Sustainability Index (Índice de Sustentabilidade Empresarial - ISE). The bank is also a signatory member of the Carbon Disclosure Project (CDP) and is committed to disseminating the initiative to its supply chain, through the CDP - Supply Chain, until 2012. In addition to this initiative, the Organization started a Project for the Social-Environmental Assessment and Monitoring of Suppliers, aimed at the long-term partnership for the sustainable development of its suppliers. Among the factors evaluated and monitored are issues related to the environment and more specifically to climate change.

With regard to commitments aimed at climate change, Bradesco has increased its engagement with the Brazilian Corporate Leaders GroupBrazilian Corporate Leaders Group (Business for the Climate - EPC) and it takes part in the GHG Protocol Program in Brazil. Other commitments for sustainability and climate change are: The Equator Principles, the Global Compact, the Green Protocol and the Millennium Development Goals.

**ECO-EFFICIENCY MANAGEMENT**

In 2010, the eco-efficiency work group

SUSTAINABILITY INDEXES
Dow Jones Sustainability World Index (DJSI)
Carbon Efficient Index (ICO <sub>2</sub> )
Corporate Sustainability Index (ISE)
COMMITMENTS
Carbon Disclosure Project (CDP)
Business for the Climate (EPC)
Global Reporting Initiative (GRI)
Millennium Development Goals
Global Compact
Equator Principles
Principles for Responsible Investment (PRI)
GHG Protocol Program in Brazil
Green Protocol

developed a master plan that establishes a framework for environmental management aligned to business, with the prospect of actions for the next five years. The plan, based on indicators and targets, includes ten main topics: energy, water, paper, plastic, waste, greenhouse gases, sewage, training, efficiency and value chain. To improve results, Bradesco created in 2010 a new governance structure for the matter linked to the executive efficiency committee and executive sustainability committee.

Under this program, Bradesco has built two units to ensure the principles of sustainability in the construction segment in order to minimize social-environmental impact. In addition, guidelines and practices for sustainability in technology resource management are incorporated to the 'Green IT' program. Between 2008 and 2010, approximately 683 tons of electronic

waste were recycled. In 2010, this number rose over 237 tons. Another part of the equipment is reused in the Digital Inclusion Centers (CIDs) of the Bradesco Foundation.

The organization develops its inventory of operational GHG emissions in compliance with the guidelines of the Brazilian GHG Protocol and the ISO 14.064 standard. It is acknowledged in the Gold Category of the program because it provides the complete account of its GHG emissions (operational), verified by an independent analyst. With the creation of the Master Plan in 2010, the organization also established goals for the next five years, which, among other, include targets for reducing greenhouse gases.

**INTERNAL MULTIPLIERS AND ENGAGEMENT WITH STAKEHOLDERS**

Besides being a member of the Business for the Climate (EPC), aimed at mobilizing, raising awareness and empowering corporate leaders to manage and reduce GHG emissions, Bradesco also includes in its planning internal training programs with the goal of reaching 85,000 people. Training is one of the bases of the climate change work group. The institution also trains its suppliers for the preparation of inventories.

**SOCIAL AND ENVIRONMENTAL CRITERIA FOR GRANTING CREDIT**

Bradesco carries out the analysis and

TABLE 5: EQUATOR PRINCIPLES

These principles represent the minimum criteria to ensure a common basis and structure for financed projects to be developed in a socially and environmentally responsible way in the granting of credit under the Project Finance category. The Equator Principles provide a minimum standard for decision making that incorporates social and environmental risks and are adopted by financial institutions on a voluntary basis, applied to projects that cost the same or more than USD 10 million.

The principles are:

- 1. Review and Categorization
- 2. Social and Environmental Assessment
- 3. Applicable Social and Environmental Standards
- 4. Action Plan and Management System
- 5. Consultation and Disclosure
- 6. Grievance Mechanism

7. Covenants  
8. Independent Monitoring and Reporting EPFI Reporting

In addition, the Equator Principles follow the IFC's Performance Standards and its criteria for categorizing risk projects, as detailed below:  
**Category A (high risk)** - Projects with potential significant adverse social or environmental impacts that are diverse, irreversible or unprecedented.  
**Category B (medium risk)** - Projects with potential limited adverse social or environmental impacts that are few in number, generally site-specific, largely reversible and readily addressed through mitigation measures;.  
**Category C (low risk)** - Projects with minimal or no social or environmental impacts.

BNDES FINANCING	OBJECTIVE	TARGET MARKET
Moderinfra	Support the development of sustainable irrigated agriculture	Proprietários rurais
Proesco	Energy Efficiency	Escos - energy saving companies - and companies (or consumers of energy suppliers)
Produsa	Encouragement for projects of recovery of degraded areas for reinsertion in the production process and adoption of sustainable practices	Corporate and family farmers
Propflora	Commercial planting and recovery of native forests	Forest-based companies

SOURCE: BNDES

[1] The Equator Principles (EPs) are a credit risk management framework for determining, assessing and managing environmental and social risk in project finance transactions.

management of social and environmental risks in credit operations by evaluating documents, technical visits, inclusion of contractual obligations, the creation of action plans and their respective monitoring. For such, it has two teams dedicated to performing these activities.

In addition, the organization has developed an analytical tool based on satellite images that indicate the location of Brazilian biomes, federal conservation units, indigenous lands and caves in order to subsidize social and environmental risk assessments. The impact of climate change is part of the issues considered in the funding and procurement analysis.

Out of the BRL 4.3 billion of the monitored project portfolio, BRL 3 billion (70%) were accounted for by projects funded under the guidelines of the Equator Principles<sup>1</sup>. A total of 68% are considered high risk and 32% medium risk. Currently, the organization monitors 61 operations that include potentially sensitive sectors and is currently in the process of contracting 22 new proposals. In 2010, the bank financed four projects

under the criteria of the Equator Principles, with one being high risk - category A.

PRODUCTS AND SERVICES

Among the credit products aimed towards climate change, Bradesco transfers a few BNDES credit lines (Moderinfra, Proesco, Produsa and Propflora) and also has its own substantial initiatives. It is worthwhile pointing out that the BNDES lines mentioned in this study were identified in the previous study - Brazilian State-Owned Banks and Climate Change - and that they are included herein because privately-owned banks are their means of transfer.

The institution also offers to its customers two credit lines for working capital operations with different conditions - easy payments and reduced interest rates - in order to encourage environmental conservation.

- Environmental Working Capital - for customers whose activity is related to social development and environmental preservation.
- Forestry Working Capital - for companies that have products or processes that

involve enterprises in natural or planted forests according to the rules of the Forest Management Council.

With the same objective, the bank also offers a line of credit for businesses that plan to obtain the so-called CDC Forest Certificate. As for the procurement of goods that contribute to social development and environmental preservation, Bradesco offers Social-environmental Credit - Environmental Leasing, which includes the following:

- Water treatment and reuse: water and sewage treatment plant;
- Renewable energy generation: photovoltaic boards, biofuels, wind power;
- Air and waste treatment: air purifiers, filters, incinerators.
- Other goods that contribute to social development and environmental preservation.

A few other products offered by Bradesco are the CDC Credit Gas Kit and the CDC Solar Heaters respectively aimed at the purchase of equipment for fuel conversion in vehicles powered by alcohol or gasoline to natural gas, that are certified by INMETRO,

and for the acquisition of solar heaters through funding with easy payment terms and reduced interest rates.

The total value of loans granted in the above lines of credit, including transfers from BNDES, totaled BRL 171 million in 2009 and BRL 239 million in 2010.

Lastly, as philanthropy, Bradesco supports organizations that work directly with the climate change issue. Part of the annual fees of the Credit Cards with Social-environmental Goals are transferred to the SOS Mata Atlântica and the Amazonas Sustentável (FAS) Foundations . The first initiative is the oldest, having been created in 1993 and the funds are primarily used in the reforestation of degraded areas, in technical training and the development of new projects to protect forests. The amount of little over BRL 49 million (BRL 2.23 million in 2010 alone) transferred to the institution until now has made it possible to plant more than 29 million native trees. The affinity card of the Amazonas Sustainable Foundation (FAS) was the first credit card issued in Brazil with recyclable plastic and



TYPE OF ACTION	DESCRIPTION
CREDIT LINES	All offer easy payment terms and reduced interest rates
CDC Solar Heaters	Option to purchase equipment
Environmental Working Capital ( <i>Capital de Giro Ambiental</i> )	For companies that recycle metal and plastic
Forestry Working Capital ( <i>Capital de Giro Floresta</i> )	For companies that have products or processes that involve enterprises in natural or planted forests
CDC Forest Certificate	Acquisition of certificate that offers to the business a differential in relation to the product's warranty of ecological and socially correct origin.
Social and Environmental Credit – Environmental Leasing	For the acquisition of new machinery and equipment that contribute to social development and environmental preservation
Gas Kit	Acquisition of equipment for fuel conversion to reduce expenses and improve air quality
PHILANTHROPY	
Affinity card of Amazonas Sustentável Foundation (FAS)	Conventional credit card with part of the annual fee directed to actions for FAS
SOS Mata Atlântica Card	Conventional credit card with part of the annual fee directed to actions for SOS Mata Atlântica
FUND MANAGEMENT	
FIA ISE	The fund's portfolio consists of shares of companies committed to sustainability
FIC FIA Planeta Sustentável	The fund's portfolio consists of shares of companies committed to sustainability

SOURCE: Bradesco

NET EQUITY FUNDS OF BRADESCO  
ASSET MANAGEMENT

BRADESCO	NET EQUITY (BRL THOUSAND)	% OF TOTAL
TOTAL	192.935.600,00	-
BRADESCO PRIME FIC FIS ISE	24.527,35	1,3%
BRADESCO FIA ISE	65.833,00	3,4%
BRADESCO FIC FIA PLANETA SUSTENTÁVEL	1.885,61	0,1%

SOURCE: ANBIMA (2011 June)

in 2010 it raised BRL 7.89 million for the institution.

Other products allocate part of the funds raised to social and environmental projects: such as *títulos de capitalização* (a unique type of savings certificate with lottery features) offered in two versions: Pé Quente Bradesco Amazonas Sustentável, which sold 309,697 units in 2010 enabling the planting of 550,000 tree seedlings and Bradesco SOS Mata Atlântica that sold 530,961 units in 2010, enabling the planting of 380,000 seedlings.

Bradesco promotes socially responsible investment initiatives represented by two funds that use social and environmental criteria to: Bradesco FIC FIA Planeta Sustentável and Bradesco Prime FIC FIA - Corporate Sustainability Index. The goal is to generate returns for shareholders in the long term, given the expectation that socially-responsible companies are better prepared for future challenges. Although the climate change issue is included in the criteria,

these funds are little representative, as seen in the [table above](#), compared with the total managed in the asset management area of Bradesco and the institution does not have a clear strategy to incorporate the risks and the opportunities of climate change in this business area as a whole.

Another investment initiative is the Private Equity Investment Fund (Fundo de Investimento em Participações - FIP) through which Bradesco has a stake in companies, such as Energias Renováveis S.A. (Ersa) and Haztec, both with a strong presence in sustainability and renewable energy.

CARBON CREDIT MANAGEMENT AREA

In 2009, Bradesco created an area within financing and products called Carbon Credit Management. This area was created with the purpose of funding projects to reduce greenhouse gas emissions, as well as to provide consulting services. However, there was no demand in 2010.

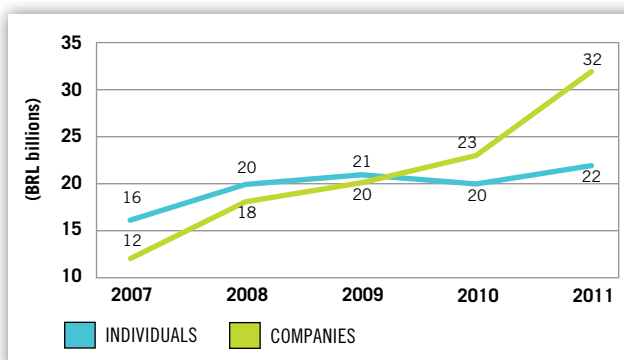


## HSBC

### HIGHLIGHTS

- **Net Income in the second quarter of 2011 reached BRL 611.9 million**
- **Brazil's sixth largest bank in assets**
- **Third largest bank in the world valued at USD 27,632 million in January 2011 (Brand Finance)**
- **24.2 thousand employees**
- **5.4 million customers and more than 400 thousand companies nationwide**
- **7.5 thousand offices in 87 countries and territories in Europe, Asia and the Pacific, the Americas, the Middle East and Africa**
- **Credit portfolio of BRL 54.7 billion in June 2011**
- **Experienced the highest growth in 2010 among privately-owned banks in housing finance products (48%), corporate credit (37%) and credit to the sector of small and medium enterprises (48%)**

GRAPHIC 2: CREDIT PORTFOLIO



FONTE: HSBC

**H** SBC is a multiple bank, founded in 1865 with its head office in London. It is one of the largest banking and financial service organizations in the world. In Brazil, HSBC has been operating since 1997 in retail, private banking, commercial, corporate and investment banking. It offers its customers a wide range of financial services: retail banking; financing for imports and exports; cash management; treasury services and capital markets; insurance and social security; loans and financing; pension funds and investments.

### SOCIAL-ENVIRONMENTAL STRATEGY

One of the goals of the bank is to make sustainability an integral and permanent part of its business. The overall performance of HSBC in relation to the environment is based on three key components:

- The first is aimed at the development of businesses that contribute to sustainability, with responsibility in credit;
- The second is geared to making a broader range of audience aware of the importance of this issue;
- The third is related to the reduction and management of the direct impact caused by its own activities.

Its sustainability strategy is divided into three stages. The first is focused on the internal audience (employees of the base up to the top tiers) with the training of collaborators and initiatives

of education for sustainability in order to foster cultural change. The second step is to offer information to the general public about available sustainable products and businesses. Other stakeholders such as suppliers, partners and community will be involved in the third stage of the project. The institution is already at the end of the first stage and has already started the second with some initiatives of the 3rd stage already having been implemented.

The climate change issue is considered strategic for the institution, and the funding for a low carbon economy was named as one of six priorities for 2009 and 2010. As such, Lord Nicholas Stern<sup>2</sup> was appointed as special consultant for the sustainability area of the bank and the board. In addition, there are clear attributions of responsibility to address the issue within the institution. For example, the areas of Corporate Sustainability and CRE (Corporate Real Estate), Global and Local have exclusive managers to handle the direct impact of HSBC's operations. These managers report to the respective heads of each area who, in turn, report directly to Executive Directors. These areas work in partnership with other operation areas such as IT, Head Office, Procurement, among others, seeking to reduce internal impacts. In the area of Sustainable Business Development, the employees report to the Superintendent of Corporate Sustainability, who in turn reports

to an Executive Director. In addition, the institution has specific global targets within the business lines to address the matter.

In 2010, some activities from previous targets were incorporated, such as:

- **Creation of a "climate business council" to discuss opportunities arising from climate change for bank businesses as a whole, the group meets four times a year to align strategy in reference to the subject and direction to be taken by the bank**
- **Establishment of investment opportunities in alternative energy.**
- **Early review of the investment area from the standpoint of sustainability**
- **Review of credit policies in the energy sector from the standpoint of climate change in January 2011**
- **Establishment of a work group to analyze the risks of climate change. The group met eight times during 2010.**

For 2011, the primary business goal is to include targets in the areas of asset management, insurance, capital markets and credit.

Regarding the commitments undertaken in 2009, HSBC Brazil joined the Green Protocol and also signed the Copenhagen Communiqué, which requires the completion of an ambitious, hefty and impartial plan related to climate change. It is the highest ranked institution of the financial sector in the ranking of the Carbon Disclosure Project (CDP) due to its

<sup>[2]</sup> British economist of the World Bank who headed the study ordered by the British government regarding the effects of climate change on the global economy over the next 50 years dubbed Stern Review: The Economics of Climate Change

emissions reports and stands among the world's top ten. Other commitments for sustainability are: Climate Principles, Global Reporting Initiative (GRI), Global Compact, Principles for Responsible Investment (PRI), the Equator Principles, Global Sullivan Principles, the Green Protocol and the UNEP Finance Initiative (UNEP-FI)

ECO-EFFICIENCY MANAGEMENT

The priority of HSBC's global policy is the reduction of internal emissions through internal eco-efficiency actions. The responsibilities are formally assigned in the operational manual of the group, which also has a system of international eco-efficiency monitoring with specific goals, including a

COMMITMENTS
Carbon Disclosure Project (CDP)
Climate Principles
Global Reporting Initiative (GRI)
Global Compact
Principles for Responsible Investment (PRI)
Equator Principles
Global Sullivan Principles
Green Protocol
UNEP Finance Initiative (UNEPFI)

Balanced Scorecard for the operational area of the bank.

In addition, HSBC has global programs to reduce its direct impacts, with a planned investment of USD 90 million by the end of 2011. The institution also works with specific sustainability requirements for construction, design and use of materials in new properties.

HSBC Brasil has set targets to reduce consumption of water and energy, waste generation and greenhouse gas emissions. It focuses mainly on emissions of greenhouse gases from energy use and transport, taking specific actions to reduce the amount of CO<sub>2</sub> emitted.

The bank prepares an inventory of GHG emissions, in addition to external audits. Still, the institution has global targets for reducing carbon emissions and has been carbon neutral (in operations) since 2005.

**INTERNAL MULTIPLIERS AND ENGAGEMENT WITH STAKEHOLDERS**

The bank is mainly aimed at the environment and climate change and as such has a program for the creation of internal multipliers in the organization focused on these issues. The bank established HSBC Climate Partnership which brings together partners from around the world to fund projects, research and engagement activities and awareness on climate change. The

program activities focus on training and engaging employees in research on the effects of climate change on biodiversity, actions to preserve forests and aquatic systems, through fieldwork and research in situ. A total amount of USD 10 million is being invested in Brazil for this purpose. In 2010, the program trained 96 officials from Brazil, called "climate champions", who have the mission to extend their knowledge to other areas of the institution. The goal for 2011 in Brazil is to train 175 "climate champions".

This program will organize a field training course in 2011, specific for HSBC managers, to help in decision-making processes. The first experience with the new training mode was held in late 2010 at the Climate Center of North America, Maryland (USA) and involved a group of HSBC executives from Latin America, including four Brazilians.

In addition, an internal campaign called "being ecofriendly" was put in place and which, among other things, addressed the CO<sub>2</sub> emission issue, providing the employees with several tips on how to reduce their carbon footprints and concepts, such as the impact deriving from an excess de CO<sub>2</sub> in the atmosphere. A sector guide to assist bank managers in the management of risks and opportunities related to climate change was also created.

In the global aspect, the institution

also engages external stakeholders, such as suppliers. The group has developed purchasing policies and codes of conduct, which encourage suppliers and partners to adopt sustainable practices, including specific items on environmental impact (air emission monitoring). For clients, the work focuses on awareness, held annually through the HSBC Climate Confidence Monitor survey, which monitors its expectations with regard to climate change. This work is also conducted with local communities, focusing on creating awareness about climate change under the Eco-schools Climate Initiative, aimed at reaching 1.2 million students in 10 countries.

**SUSTAINABILITY RISK MANAGEMENT AREA**

In order to analyze ethical, social and environmental risks in credit operations, HSBC (Global and Brazil) created an Area of Sustainability Risk Management. The business area of the bank applies the criteria of Sector Policies and the Credit Board evaluates the sustainability risk of the operations. High-risk projects require additional analysis, performed by the Global Sustainability Risk Area. As such, the area includes independent experts and consultants in the decision-making process, to monitor the action plan and in the remedial actions.

HSBC has specific guidelines for the

[3] International treaty signed in 2001 in Stockholm, under the auspices of the United Nations Environment Program to globally eliminate the production and use of a few toxic substances produced by man.

[4] Regulates the international trade of dangerous chemical products.

[5] International treaty in which the signatory countries agreed to replacing the substances that have proven to be reacting to the ozone (03) layer in the upper part of the stratosphere.

[6] First intergovernmental treaty to supply a structural base for the international cooperation and national action for the conservation and sustainable use of natural resources of wetlands and their resources.

sectors of mining and metals, chemicals, infrastructure and dams, forests and forest products, energy and defense equipment. These standards were developed based on international standards of best practices together with clients, industry associations, shareholders and non-governmental organizations, and consider the guidelines of several international agreements, such as the Kyoto Protocol, the Stockholm Convention<sup>3</sup>, the Rotterdam Convention<sup>4</sup>, the Montreal Protocol<sup>5</sup> and the Ramsar List<sup>6</sup>, among others.

GHG measurements in funded projects are already provided for in the Equator Principles and HSBC requires their compliance from its clients. In addition, HSBC records in the sustainability risk assessment for corporate credit, the existence of GHG reduction policies and targets for 6 sectors: chemical, forestry, mining and metals, freshwater infrastructure and energy.

Another global initiative was created in 2007, HSBC Climate Change Centre of Excellence, aimed at identifying possible risks and economic opportunities for financial markets arising from climate change. In 2009, the center generated 30 reports.

PRODUCTS AND SERVICES AND OTHER BUSINESS AREAS

Through investments, loans; insurance, other products and services, HSBC takes the lead in the transition to a low-carbon economy in the long term.

In the insurance area, the products that

most stand out among the products offered by HSBC Brasil in relation to a low-carbon economy are the green policies. The actions developed in 2010 are the basis for a plan that aims to make the bank an example of sustainable performance in line with the Principles of Sustainability in Insurance under development by Unep-FI. New risks arising from climate change will be mapped in this new revision. In early 2011, HSBC Seguros began to adopt social and environmental and corporate governance criteria in the subscription process. The work began in January 2011 with a portfolio of corporate clients and plans to include individuals until the end of 2011. In this process, the insurance company verifies if the client adopts sustainable practices and if it is in agreement with the company's sustainability policy.

A relationship was established with partners, NGOs, SPVS and WWF, which were chosen to receive funding (BRL 17.5 million over 5 years) from the insurer.

In addition, HSBC has created the Green and Sustainable Insurance Plan, in which it undertakes, at a global level, to prepare a company and its customers for the impacts of climate change.

HSBC Global Asset Management aims to incorporate climate change to its decision-making investment process using a sustainability rating developed by the bank, with a methodology that includes risk analysis and opportunities in three aspects: environment (which includes the climate change issue), social and

HSBC GLOBAL	
Climate Change Benchmark Index	An index that tracks the performance of sectors linked to the transition to a low-carbon economy
Climate Change Fund	A fund that invests in companies considered to be better positioned to benefit from the transition to a low-carbon economy
Environmental Infrastructure Fund	Infrastructure fund aimed to environmental projects such as renewable energies and water and garbage treatment. HSBC is an investor in this fund.
Green & Sustainable Insurance	A plan to prepare the company and its clients for the impacts of climate change
Low Carbon Index	A sub index of the Climate Change Index
HSBC BRASIL	
FI Ações SRI	An investment in companies recognized for their social and environmental practices
HSBC Performance SRI 20	An investment in companies recognized for their social and environmental practices

SOURCE: HSBC

corporate governance. The area has a team of analysts responsible for assessing companies under all aspects of corporate governance and social-environmental responsibility. The result of the assessment is validated by a committee and together with the economic and financial analysis, serves as a basis for the selection of private equity funds with long-term strategies. Currently, this methodology is being implemented for the recently-created new funds, as detailed below. However, it is important to note that the goal of HSBC Global is to extend the evaluation of social-environmental aspects to all funds operated by the bank until 2012.

At HSBC Brasil, the FI Ações SRI and HSBC Performance SRI 20 funds have 20 criteria related to the matter of sustainability. In 2010, due to the new methodology, FI Ações SRI replaced Fundo FIC ISE, which brought together companies listed in the Corporate Sustainability Index (ISE) of the São Paulo Stock Exchange, and had a wider reach: achieve profitability by investing in companies that stand out for their commitment to sustainability. In July 2011, according to Anbima, the fund had a net worth of BRL 51.7 million, compared with total assets managed by HSBC Asset Management in Brazil of BRL 88.5 billion,





that is, little representativeness. In 2011, HSBC launched a new portfolio aimed at corporate investors, HSBC Performance SRI 20, a fixed income fund that also seeks investments in companies approved by the bank's methodology.

HSBC Global also offers some products related to climate change. Through the Environmental Infrastructure Fund, it offers funding for renewable energy in partnership with a company created by Carbon Trust Enterprises. In 2010, the fund raised EUR 215 million.

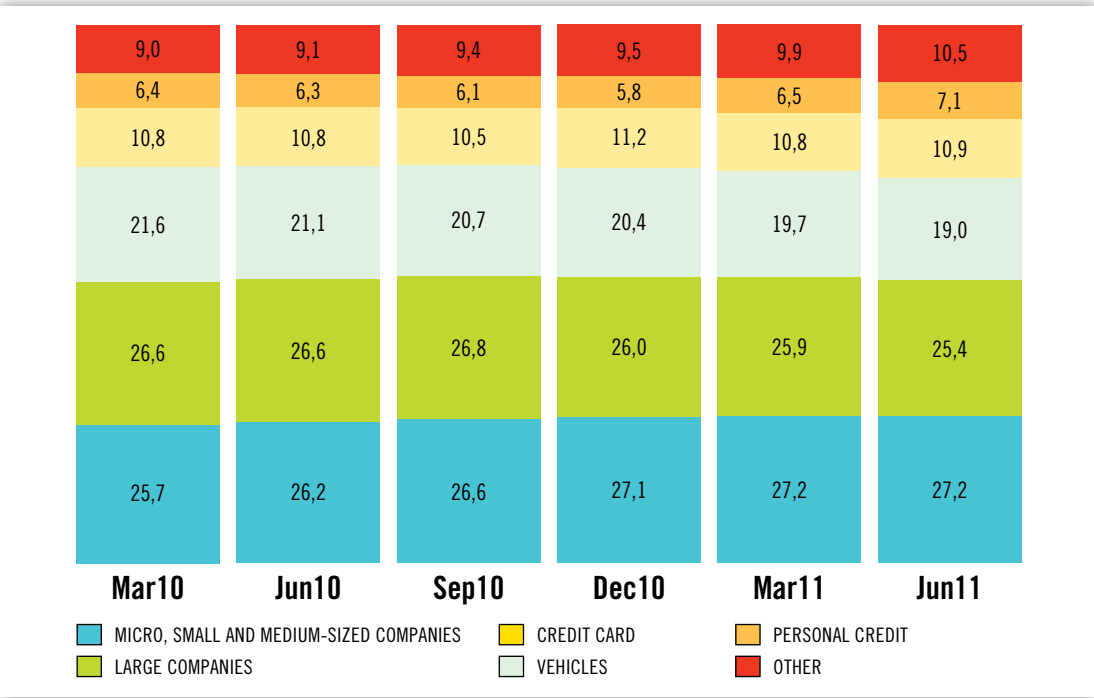
Other products are the HSBC Low Carbon Index and the Climate Change Benchmark Index, which follow the stock market performance of global companies that are already profiting from the transition to a low-carbon economy. The Climate Change Index includes organizations that generate revenue from products and services to mitigate and adapt to climate change. Revised four times a year, the index includes more than 380 companies and is used by three of the ten largest pension funds in the world and by the largest asset managers to support their investment choices. Actively involved in the fight against climate change, the Climate Change Fund invests in companies that are considered in a better position to benefit from the development of solutions for the challenges created by climate change. The Equity of the fund in July 2011 was USD 35 million.

### ITAÚ UNIBANCO

**HIGHLIGHTS**

- Net income in the second quarter of 2011 was BRL 3.6 billion
- Brazil's second largest bank in assets
- 108,040 employees in Brazil and abroad
- Clients: 40 million
- In December 2010, its market value was BRL 179.6 billion
- One of the 10 largest banks by market value
- Credit portfolio of BRL 360.1 billion in June 2011

GRAPHIC 3: EVOLUTION OF CREDIT PORTFÓLIO MIX





Itaú Unibanco is a multiple bank based in Brazil, operating locally for 60 years and abroad since 2004. In 2008, Itaú and Unibanco merged and as a result, Itaú Unibanco became one of the largest conglomerates in the southern hemisphere, with a market value that places it among the 20 largest financial institutions in the world.

SOCIAL-ENVIRONMENTAL STRATEGY

Itaú Unibanco coordinates its social and environmental strategy through a Sustainability Committee, composed of directors who meet every two months. The main duties of this committee are: define strategies of action in terms of sustainability; monitor action plans, indicators and targets; support the development of projects that raise awareness and involve the stakeholders of the bank in sustainability actions.

In addition to the Committee, the organization has a Sustainability Committee that meets every month and is composed of supervisors and managers. Its attribution is to analyze risks and internal and market opportunities. It also aims at proposing projects, solutions and new approaches, as well as executing action plans defined in the sustainability strategy and disseminating culture related to this matter within the bank.

The issue of climate change is addressed under the framework of social

and environmental risks and opportunities included in the bank's sustainability strategy. Its new corporate policy, announced in 2009 after the merger, establishes as a guideline the inclusion of aspects related to climate change. In addition, the bank has a sustainability team that follows the development of the matter by business area. The bank also had in 2010 a climate change work group to help the institution better understand the issue.

The bank has been listed in the Sustainability Index (ISE) for 6 years and the Dow Jones Sustainability Index (DJSI) for 11. It is a member of the Green Protocol, the Equator Principles, the Carbon Disclosure Project (CDP), the Global Compact, the UNEP Finance Initiative and reports according to the guidelines of the Global Reporting Initiative (GRI). The organization is a member of the Business for the Climate (EPC) and publishes its emissions inventory according to the methodology of the GHG Protocol Program in Brazil. However, it has not yet established final GHG reduction targets, only targets to improve its performance in the fight against climate change through mitigation/reduction actions within its operations.

RISK ANALYSIS AND SOCIAL-ENVIRONMENTAL CREDIT

Itaú Unibanco published in 2007 the Sector Policy of Social-environmental

SUSTAINABILITY INDEXES
Dow Jones Sustainability World Index (DJSI)
Corporate Sustainability Index (ISE)
COMMITMENTS
Carbon Disclosure Project (CDP)
Business for the Climate (EPC)
Global Reporting Initiative (GRI)
Global Compact
Equator Principles
GHG Protocol Program in Brazil
Green Protocol
UNEP Finance Initiative (UNEPFI)

Risk for Corporate Credit Business Area aimed at companies that have social and environmental risk. This policy is based on the guidelines of the Equator Principles and in its construction process included a consultation with a representative group of the bank's strategic audiences such as employees, suppliers, customers, competitors, nongovernmental organizations and the government. To put this policy into practice, the institution has a cross functional team of 14 analysts who include the issue of climate change in their analysis process although this is not explicitly stated in the credit/risk policy. A point in the analysis process consists in the verification of the social-environmental risk management capacity inherent to the client's activity. Climate change criteria is also considered in the sector guidelines of the social-environmental risk of Corporate Credit in the segment of medium-sized enterprises, which contain specific methodologies for certain business areas. The social-environmental risk assessment guidelines of the corporate client are decided by the social-environmental risk committee of the organization that aims to discuss legal matters related to social-

environmental risk and to verify adherence to existing policies, monitor controls and action plans in progress.

In regard to real estate, the bank requests a climate change-related form to be completed. The eligibility criteria on energy efficiency of the IIC (Inter-American Investment Corporation), of which the bank is a partner, is also applied.

ECO-EFFICIENCY MANAGEMENT

Selective trash collection, use of more energy efficient equipment, consumer awareness of water and electricity are some of the actions taken by the bank, motivated by its respect for the environment. Seven administrative buildings of the bank in São Paulo use electrical energy produced from organic waste decomposition.

The Green IT committee oversees the progress of the IT area and ensures that this process does not deviate from the bank's vision of sustainability.

ENGAGEMENT WITH STAKEHOLDERS

A few initiatives were taken to engage stakeholders in the climate issue. Customer communications aimed at climate change and other issues were developed in 2009. Meetings under the Diálogos Itaú de Sustentabilidade series are also held. This initiative is a group activity that provides for the opening made by a representative of Banco Itaú Unibanco, offering the



company’s vision on the matter. In addition, it brings in an expert to talk about a chosen subject. The format concludes with the successful business cases. The events are attended by clients, entrepreneurs, experts and employees, who add their many views to the discussions. Topics such as entrepreneurship, conscious consumption, financial planning, Green IT, climate change and the Dow Jones Sustainability Index were discussed in 2009.

In order to educate clients about their responsibilities to reduce emissions of Greenhouse Gases (GHG), a program dubbed “Contador de Sustentabilidade” (Sustainability Counter) was launched in 2009 to inform corporate clients, at every digitally signed exchange contract, through Itaú 30 Horas, the amount of paper saved and the amount of carbon gas (CO<sub>2</sub>) that was not released into the atmosphere. Since its launch, more than 5.4 million sheets of paper were saved and 21,400 kg of GHG were prevented from being emitted (2011 August).

Other engagement actions of the institution linked to the issue of climate change are reflected in the share of Itaú Unibanco in various events and forums on the subject. In 2010, the bank participated in the discussion panel about the financial sector and climate change during COP 16 in the 2010 World Climate Summit, and events sponsored by IDB regarding the carbon market. In 2011, the bank will sponsor workshops of social and environmental risk and climate change for financial analysts

in the Sustainability Week. One of the workshops will be offered to clients of the bank’s Company area.

**PRODUCTS AND SERVICES AND OTHER BUSINESS AREAS**

Itaú Unibanco was one of the first institutions to transfer a BNDES financing line to back projects that encourage a low-carbon economy, such as the ABC program (Low Carbon Agriculture). The program provides BRL 3.150 billion for the 2011/2012 season and is aimed at farmers and cooperatives, which have a funding limit of BRL 1 million and an interest rates of 5.5% per year. The deadline for payment is 5 to 15 years.

For the financing of projects, goods and services with an emphasis on sustainability, Itaú Unibanco offers the Giro Ambiental product. The bank also encourages financing for the purchase of solar heating through the Solar Heater product (credit to reform). In 2010, 285,057 contracts were signed, a significant increase in comparison with the 47,760 contracts signed in 2009.

There is also the IIC Social-Environmental Line, aimed at financing small and medium companies in automatic leasing and that adopt good business practices according to the criteria defined by IIC (Inter-American

Investment Corporation). This line has USD 330 million contracted in September 2011, not much representative if compared with the total amount of credit of the organization.

MaxiConta Ambiental PJ offers a differentiated rate package aimed at companies that are concerned with environmental issues.

In the investment area, one of the products offered by the bank to encourage a reduction in the emission of greenhouse gases is the Unibanco Itaú Carbon Index Fund. By investing in this fund, the investor contributes to the development of the carbon credit market, which has a key role in fighting climate change.

Some investment funds aimed at this area, however focused on philanthropy, are those in the Itaú Ecomudan a family, which donate 30% of their management fees to projects that reduce GHG emissions with technical monitoring for 2 consecutive years. There are two modes: Ita  DI Ecomudan a and Ita  Renda Fixa (Fixed Income) Ecomudan a . These products were created in 2007 and represent a pioneering initiative of the bank.

The FIES Fund (Fundo Ita  Excel ncia Social), created in 2004, which tackles the subject more broadly and is a fund that follows the performance of the Corporate

BNDES FINANCING	OBJECTIVE	TARGET MARKET
ABC Program	Encourage technological processes that neutralize or minimize the effects of greenhouse gases in the field.	Farmers and Cooperatives

SOURCE: BNDES

TYPE OF ACTION	DESCRIPTION
RESOURCE MANAGEMENT	
FIES	Choice of long-term investments in the stock market aimed at companies with good performance in sustainability terms using as a benchmark the ISE and internal criteria
Itaú Unibanco Carbon Index Fund	A protected strategy fund linked to the BCGI Barclays Capital Global Carbon Index that measures the performance of Carbon Credits traded in the ETS and the CDM.
Itaú Ecomudança Funds	Possibility of investing to obtain additional revenue: a sustainable environment. Invests 30% of the management fee in projects that reduce emission of greenhouse gases.
INSURANCE COMPANY	
Itaú Unibanco Environmental Liability Insurance	Insurance for businesses that provides support for sudden as well as gradual pollution, with a broad scope of solutions for the insured party.
CREDIT LINES	
Solar Heater	Pre-approved credit line that offers special terms for the client who is purchasing solar heaters.
Environmental Turnover ( <i>Giro Ambiental</i> )	Finances projects, goods and services aimed at sustainability.
Social-environmental IIC Financing	Finances small and medium-sized companies that adopt good business practices.
MaxiConta Ambiental PJ Corporate Environmental Account	Package of services that encourage the conscientious use of natural resources and prioritizes e-services. Available for business customers. Includes the use of cards in lieu of checks. The system generates message alerts when prompted to print papers at ATMs.

SOURCE: Itaú Unibanco

NET EQUITY FUNDS OF ITAÚ UNIBANCO  
ASSET MANAGEMENT

FUNDS	NET EQUITY (BRL MILLION)	% OF TOTAL
TOTAL	232.134,00	-
ITAÚ UNIBANCO CARBON INDEX FUND	170	0,07%
ITAÚ ECOMUDANÇA FUND	245,5	0,11%
FIES	320	0,14%

SOURCE: Anbima, Itaú Unibanco (2011 June)

Sustainability Index of the São Paulo Stock Exchange (ISE) and adopts internal criteria for inclusion and exclusion of companies in the Part portfolio of its management fee is invested in education projects and has a partnership with UNICEF.

NET EQUITY FUNDS OF ITAÚ UNIBANCO  
ASSET MANAGEMENT

In addition to the products available, the asset management area is developing an internal methodology for the analysis of social, environmental and corporate governance matters to be incorporated in its traditional fundamental investment analysis for all funds operated by the area. The first step was to map the key social and environmental risks in the sectors of greatest importance. To better understand the risks, studies were made of each sector with forecasts extending up to 2050, covering the risks of climate change. Seven sectors have

already been mapped and the next step will be to make a further analysis at a company level, in addition to defining the methodology that will integrate this result in the traditional analysis of the teams.

In the insurance sector, sustainable insurance principles are being developed and a work team is being structured for this matter. The organization offers the Itaú Unibanco Environmental Liability Insurance which, along with guarantees for sudden and accidental pollution, protects clients in case of gradual pollution. The insurance allows the development of a tailored solution with respect to coverage. It is the only institution that offers this type of product, but likewise to the investment area, it does not adopt a central strategy in relation to the matter, but separate products that carry little weight. In 2010, the contracted amount was just over BRL 18 million, up BRL 17 million over the amount registered in the previous year.



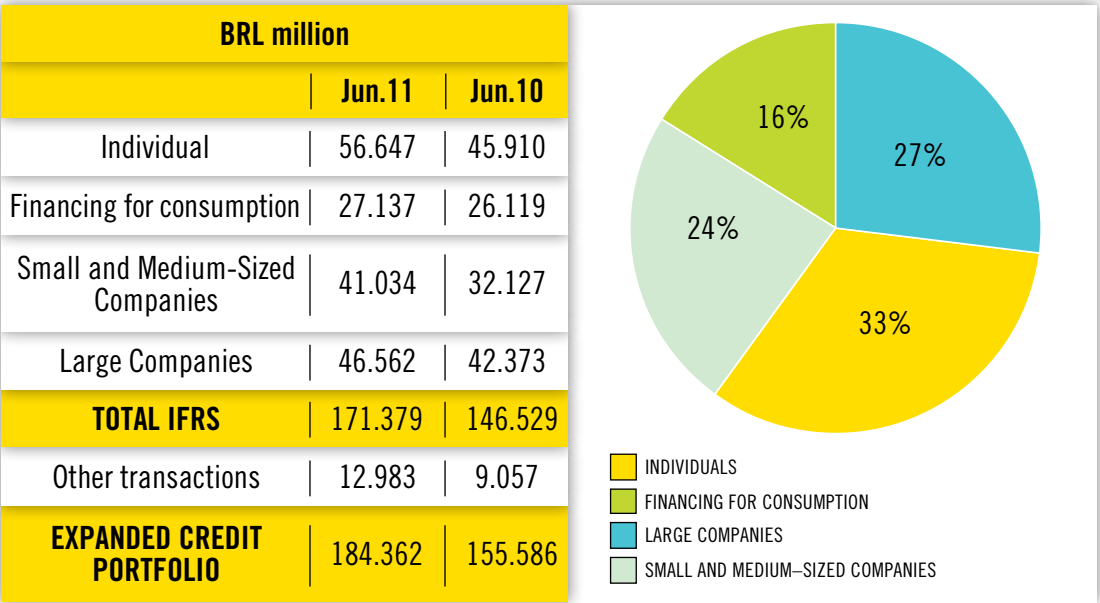


SANTANDER

HIGHLIGHTS

- Net income in the second quarter of 2011 was BRL 4.2 billion
  - Brazil's fifth largest bank in assets
  - Fourth largest bank in the world valued at USD 26,150 million in January 2011 (Brand Finance)
- 53,361 employees
  - 24.7 million clients in Brazil
  - Operations strategically concentrated in the Southern and Southeastern regions of Brazil
  - The loan portfolio reached BRL 184.4 billion in June 2011

GRÁFICO 4: CARTEIRA DE CRÉDITO HSBC



Santander Brasil is a multiple bank based in Spain. It entered in Brazilian market in 1957 through an operating agreement with a local bank and in the 1990s it set off an acquisition strategy that led to strong organic growth. Sustainability actions have gained importance since the acquisition of Banco Real ABN Amro in 2008, when its initiatives on the matter were also incorporated.

SOCIAL/ENVIRONMENTAL STRATEGY

In 2010, the bank chose three strategic themes: Education, Entrepreneurship and Climate Change, for which we selected three fronts:

1. Business: develop financial solutions that promote mitigation and adaptation to climate change;
2. Operations: adopt best management practices to reduce emissions, involving the whole supply chain;
3. Communication: inform, educate and raise the awareness of all audiences of the bank about the main concepts of Climate Change, the vision of the bank on Low Carbon Economy and its practices, assisting each individual to acknowledge and take part in this new scenario.

Due to this strategy, there are several programs and projects related to the topic and some of them are under the supervision of people who may reach the hierarchical level of the vice president of the institution.

COMMITMENTS
Carbon Disclosure Project (CDP)
Business for the Climate (EPC)
Global Reporting Initiative (GRI)
Global Compact
Equator Principles
Brazilian GHG Protocol Program
Green Protocol
Unep Finance Initiative (Unep-Fi)
International Declaration on Cleaner Production - UN

There are individual targets that address sustainability issues, including climatic aspects, at all such levels of responsibility. Among the areas involved in these projects are: sustainable development, retail, wholesale, facilities, corporate matters, risks, branding, marketing, communication and interactivity, and human resources.

Santander has signed several national and internationally agreed commitments. Among them: Green Protocol, the International Declaration on Cleaner Production (UN) Global Compact, Equator Principles and UNEP Finance Initiative. More directly related to the topic of climate change, the bank is part of the Brazil GHG Protocol, developing an inventory for

TABLE 6: FOREST FOOTPRINT DISCLOSURE (FFD)

Forest FootPrint Disclosure, is a project of the Global Canopy Foundation, initiated in 2008. The proposal of FFD is to engage private sector companies by asking them to disclose their “forest footprint” based on five key commodities – soy, palm oil, timber, cattle products and biofuel, in its operations or supply chain. The FFD goes beyond the disclosure and acts as a catalyst for investors to actively engage with companies in their investment portfolio.

The FFD supports best practices including the use of global certifications to avoid deforestation, encourage innovation through engagement and exchange with all participants, as well as research and case studies of good practices on issues of deforestation.

In June 2011, disclosure requests of the 360 largest companies in the world were sent questioning them about their exposure to such deforestation. This request was sent to 64 financial institutions who manage assets of over USD 6 trillion. Upon completion of this process, each company receives a report detailing their strengths and weaknesses in comparison with their peers, as well as a follow-up on-site meeting.

The Annual FFD Review describes the main findings of disclosure process, provides analysis of the companies responses and mention the current issues of the commodities that pose a risk to forests worldwide.

operational emissions and for the Business for the Climate (EPC). Moreover, the bank reports its operations in accordance with the guidelines of the Carbon Disclosure Project (CDP)

ECOEFFICIENCY MANAGEMENT

The bank has programs aimed at reducing GHG emissions, among which the ‘Friendly Ride’ (Carona Amiga) and ‘Efficiency of Paper’ (Eficiência de Papel) programs. In the Friendly Ride program, the bank encourages its employees to adopt a more efficient transport means, reducing emissions per capita. The Paper Efficiency Program maps the issuance of credit card statements and bills and encourages its customers to opt for electronic receipt to save paper. In addition, the organization

applies the best sustainability practices in its constructions and buildings.

Since 2009, the institution sets goals for reducing GHG, especially with regard to travel. In 2010, a study was initiated to establish reduction targets for suppliers. In 2011, a project will begin setting goals for reducing emissions per capita in the institution.

ENGAGEMENT WITH STAKEHOLDERS

In order to share the responsibility of indirect GHG emissions with suppliers, the bank held in October 2010 the Industry Forum for GHG Emissions Management - Supplier Engagement with the aim of raising the awareness of this public to adopt a systematic process for the preparation of an inventory, defining criteria for the mitigation of its emissions and adaptation.

In addition, the bank has a few programs aimed at raising the awareness of clients to adopt actions for the reduction of GHG emissions.

Ecological Corridor of Paraíba Valley

The bank developed in partnership with Fibria, the ‘Ecological Corridor of the Paraíba Valley’ program. It is a 10-year project aimed at the conservation of the Atlantic Forest in the Paraíba Valley region through the planting of seedlings. Through this initiative, the bank hopes to encourage companies in the region to join the program and invest in the reforestation of the corridor’s entire area.

Santander Sustainable Project

A program that encourages clients working in the construction area to adopt practices that enhance economic efficiency, reduce environmental impact and enhance the quality of life in buildings. Santander offers a guide to good practice in construction, applies a social-environmental risk questionnaire and conducts a project feasibility study and environmental technical inspections.

Forest Footprint Disclosure

In 2010, the Asset Management area of Santander Brasil adhered to the FFD - Forest Footprint Disclosure initiative. Launched in Britain in 2009, this global program focuses on reducing the demand for products that cause deforestation. (Table 6)

SOCIAL/ENVIRONMENTAL RISK AREA

The social/environmental risk area has a cross functional team that incorporates the climate change aspect in its risk analysis, although this is not explicit in its policy of social and environmental risk. The bank has its own mechanisms of analysis and examines 14 economic sectors that have a potential impact on the environment. The dissemination of these practices in social and environmental risk assessment was done through the training and qualification of over 600 employees.

PRODUCTS AND SERVICES

Santander also offers services and products related to fighting climate change

BNDES FINANCING	OBJECTIVE	TARGET MARKET
Propflora	Commercial planting and recover of native forests	Forest-based companies
Moderagro	Implementation and improvement of agricultural crops	Farmers (individuals and companies) and Farmers’ Cooperatives

SOURCE: BNDES





TYPE OF ACTION	DESCRIPTION
CREDIT LINES	
Financing for Sustainability	Include the financing of vehicles, machinery, equipment, projects, constructions and services (ex. laboratory tests of soil and air quality) within the following areas: <b>Accessibility;</b> - Cleaner Production and Processes; - Renewable Energies/Energy Efficiency; - Entrepreneurship and Good Governance; - Certified Products/Responsible Consumption; - Health and Education.
Gas Kit	Financing for the acquisition of Gas Kit - gas installation in cars
IFC Transfer	Transfer of resources for the funding of social/ environmental and corporate governance projects
RESOURCE MANAGEMENT	
FIP Caixa Ambiental	An investment targeted at sanitation, solid waste management, clean energy and biodiesel. The portfolio includes holdings in renewable energy and sanitation and environmental services.
Ethical Fund	An investment fund specialized in emerging merchant
Floresta Real Fund	Fixed income fund that entitles shareholders to receive the actual financial value related to carbon credits equivalent to the carbon acquired by the Floresta Santander Project. Currently, the fund is closed to new investments.
InfraBrasil Private Equity Fund	For investments in energy, particularly renewable energy, sanitation, logistics and environmental services
GLOBAL INITIATIVES	
Carbon Fund	Investment fund aimed at acquiring emission rights
Renewable Energy Fund	Investment fund dedicated to renewable energy
Solar Photovoltaic Leasing	Leasing for photovoltaic solar panels

SOURCE: Santander

and transferring funds from the Propflora and the BNDES Moderagro financing lines.

Among the lines of credit offered by the bank, the main ones are the ‘Gas Kit’ and ‘Funding for Sustainability’. These lines are aimed at gas installation in cars and involve the financing of vehicles, machinery, equipment, projects, construction and services (ex. soil and air quality laboratory tests), with regard to cleaner production processes, renewable energy and energy savings, certified products and responsible consumption.

Santander also has two financing lines with IFC (International Finance Corporation) for the funding of social-environmental projects that include energy savings and renewable energy. The amount disbursed in 2010 was BRL 144.5 million.

Since 2001, Santander offers the Ethical Fund, a variable income fund comprised of shares of companies that have good conduct in relation to social, environmental and corporate governance issues, in addition to good prospects of financial returns, therefore it manages the climate change issue in a broader sense. At the end of July 2011, according to Anbima, the fund had assets of BRL 274 million while the total assets managed by Santander Asset Management stood at BRL 113.8 billion.

The bank launched in 2008 the Floresta Real Fund, a fixed income fund, which besides profitability, entitles the members to

a financial value related to the carbon credits derived from the reforestation project in the Ribeira Valley region to offset emissions of CO<sub>2</sub> equivalent. This benefit is valid for every BRL 25 thousand applied and maintained in the fund for three consecutive years. Currently the fund is closed for investments because it has hit the ceiling of BRL 250 million. In addition, it is the manager of FIP InfraBrasil, which aims to finance renewable energy, logistics and environmental services projects. At the end of 2010, this fund had a capital of BRL 1 billion.

The Renewable Energy Fund, an investment fund dedicated to renewable energy created in 2008 and the Carbon Fund for the acquisition of emission rights are a few of the initiatives in the area of international investments. Solar Photovoltaic Leasing also helps to fight climate change.

CARBON MARKET AREA

The bank has an area aimed at the Carbon Market, which provides comprehensive advice on all stages of development for Clean Development Mechanism (CDM) projects, analysis of clients’ projects, assistance in feasibility studies, project financing and negotiation of carbon credits generated. In 2010, were BRL 250 million were provided for investment in projects and EUR 50 million for the purchase and monetization of carbon credits.

## GAP ANALYSIS

The two questionnaires mentioned in the methodology allowed us to assess the strategy as well as the products and services offered by the institutions with respect to climate change as described in the previous chapters, which have detailed the initiatives of each bank. For a comparative analysis, institutions were scored with the criteria that consider whether the topic:

- **Has a very limited approach or is not considered;**
- **Is addressed, however the actions are in development;**
- **Is forwarded internally and established actions are in place.**

Initially the collective results will be presented. The individual scores can be found in [Appendix 1](#).

In general, the banks scored higher in the first questionnaire, which addresses the corporate view on the subject and operational emissions, than in the second questionnaire, which relates to the financed emissions and the direction of the portfolio.

The topic of “strategic awareness” is one of the most advanced in the private owned institutions due to its action strategies and the flow of decision-making processes, which are clearer than in state owned institutions. Additionally, the topic is already considered strategic on several business lines within the institutions, with differentiated strategies being developed for each line of action.

Engagement actions are also being taken in all institutions, mainly regarding the inside public, particularly related to staff training. However there are still many improvements to be made, for example, increase the transparency, the disclosure of information and the accountability, especially in financed emissions scope, where the significant amount is.

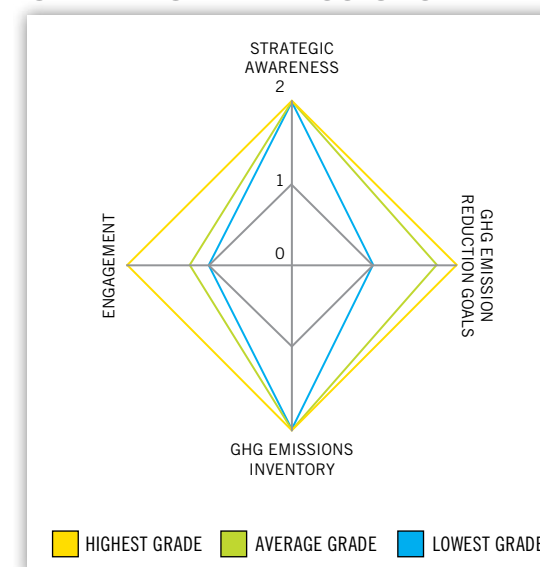
All the institutions analyzed prepare an operational GHG emissions inventory, being, therefore, ahead of state owned banks. All institutions have already established some sort of goal of operational GHG emissions reduction, nevertheless most goals are relative (percentage) and not absolute and not all institutions consider all of their operations. Yet, none of them has an inventory of financed emissions. The absence of financed emission inventory can be explained by its degree of complexity or by the lack of priority that this topic has for the institutions.

Although the score of global institutions, such as HSBC and Santander, has been made based on their global commitments and activities, it is recommendable that the global initiatives permeate the entire institution at the national level as well.

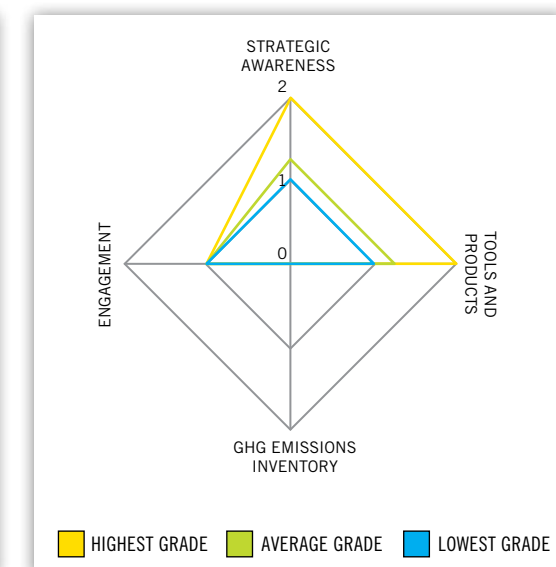
When it comes to ‘tools and products’, most institutions (except for HSBC global) offer few products, and which have low weight in the portfolio of the institutions.

The following charts illustrate the scores achieved by the institutions:

**GRAPHIC 5: QUESTIONNAIRE 1: CORPORATE VISION AND OPERATIONAL EMISSIONS**



**GRAPHIC 6: QUESTIONNAIRE 2: FINANCED EMISSIONS AND DIRECTION OF PORTFOLIO**



For privately-owned financial institutions to achieve effective management that considers climate change, advances, challenges and recommendations will be presented in four categories of analysis, namely:

1. **Corporate strategy**
2. **Mapping of the risks of climate change in the credit area**
3. **Products and services**
4. **Other business areas**

For each category, international benchmarks of best practices were chosen to illustrate and better explain the topic. It is

worth noting that the references chosen were based again on the initiative of institutions that provide guidelines for the evaluation of commitment and practices under the climate issue, as seen in the methodology as well as contributions received from experts in the area. Moreover, international references were identified during the validation workshop. These examples are not intended to create an extensive table of good practices but to illustrate a few solutions found. The following is a description and analysis of the four categories.

1 CORPORATE STRATEGY

An effective corporate commitment to the topic of climate change requires the formal commitment of senior management and the inclusion of the subject in the strategy and policies of the institution. While there is a clear commitment, it is possible to create a real change. We recommend a clear decision-making process, starting at senior management and covering all processes, reaching the level of products offered to the customer. In other words, formal procedures are needed to establish solid objectives, actions, targets and indicators based on the strategy and, moreover, its performance

must be effectively monitored. Still, it is necessary to perform internal work in the financial institutions to understand the actual impact more deeply, whether direct or indirect, so that the procedures adopted have a connection and are in line with reality. Lastly, it is essential to ensure the involvement of the employees, so they stay motivated and feel like they are part of this purpose, that permeates the organization, and for the whole process to be guided by the principles of transparency and frankness, engaging the stakeholders and thus ensuring trust and legitimacy. While the issue of

climate change is not guided by a flow of such decisions, no action will have the necessary and urgent effectiveness.

Within this context, the four topics to be addressed in the corporate strategy for climate change are:

- (i) Corporate commitment and decision-making flow;
- (ii) Deep understanding of the corporate impact as a whole;
- (iii) Development and training of internal multipliers; and
- (iv) Engagement with stakeholders and transparency.

an integration of the topic with other points that are equally important and urgent. Despite this study being aimed primarily at climate change, it is important to note that we do not in any way recommend dealing with the issue separately leaving other aspects unheeded. On the contrary, we encourage the topic of climate change to be incorporated into a broad sustainability strategy.

In addition, private institutions have already made progress in their commitment to establish processes that put this commitment into practice. Bradesco started this process by creating internal work groups aimed at the area of sustainability to discuss and define their position on the issue. Santander, in turn, also structured a work group focused on climate change, which is assisted by a vice president and which already has some specific set goals. HSBC has specific goals set by area, with people from the senior management of the respective areas assigned to implement actions that aim at achieving the goals. That is, the bank managed to make progress in its commitment and define an action plan monitored by senior management.

Banks are required to clearly communicate their formal commitments set out in policies that are disclosed to the public at large, and indicate how their corporate commitments are broken down into objectives, targets and actions in all

CORPORATE COMMITMENT AND DECISION-MAKING FLOW;

In this survey, we concluded that the four institutions have considered the climate change topic as strategic for senior management, in other words, a corporate commitment is clearly needed in all institutions. HSBC has among its members an expert on the subject, Sir Nicholas Stern, which demonstrates the seriousness with which the institution deals with the subject. Itaú Unibanco, Bradesco and Santander also claim to place climate change at the top of its priority list in their strategies, and the foremost bank has already included the issue in its corporate sustainability policy. This institution chose to deal with the topic within the realm of sustainability, which is interesting because it guarantees

ADVANCES	CHALLENGES	RECOMMENDATIONS
<ul style="list-style-type: none"><li>➤ Formal corporate commitment</li><li>➤ Involvement in strategic areas</li><li>➤ Cross disciplinary and cross functional work teams</li><li>➤ Engagement actions, especially related to training and orientation</li><li>➤ Adopt of common methodology for calculating operating emissions (GHG Protocol)</li><li>➤ Adopting methodologies for reporting and engagement with stakeholders (GRI, CDP, etc.).</li></ul>	<ul style="list-style-type: none"><li>➤ Low involvement of senior management in implementation</li><li>➤ Clear decision-making process, starting at senior management and spreading through every process, reaching the level of products offered to the customer</li><li>➤ Unawareness of the corporate aggregate impact, including inventory of financed emissions</li><li>➤ Absolute targets, often not established</li><li>➤ Greater transparency in relation to financed emissions (the demands of civil society)</li></ul>	<ul style="list-style-type: none"><li>➤ Attribute responsibility to senior management in the monitoring of a transversal strategy for the theme in the corporation</li><li>➤ Development of common methodology for the preparation of an inventory for financed emissions</li><li>➤ Establishment of absolute targets for the reduction of operational emissions and, mainly, of financed emissions</li><li>➤ Training and capacity building for the creation of internal multipliers within the financial institutions (from senior management to sales force)</li><li>➤ Clear and effective communication of strategy and practices of the financial institution, especially in relation to financed emissions</li></ul>



TABLE 7: INTERNATIONAL REFERENCES - COMMITMENT AND DECISION - MAKING FLOW	
<p><b>Nedbank - Climate Change Position Statement</b></p> <p>Nedbank stands out among the international banks. The bank has a climate change position statement, , which serves as a public declaration and pledge to reduce our impact on the environment in terms of energy, water and paper usage as well as carbon emissions.. The bank has set reduction targets based on these commitments and on the National Energy Efficiency Accord – of which the institution is a signatory.</p>	<p>and conflicting needs of stakeholders , are rapidly changing the global business environment. In this context, the bank believes that its performance can not only be measured based on its economic-financial performance, but it is also assessed for its social and environmental contributions. In addition, the bank acknowledges that its client may have an impact on society and environment when conducting its daily business. Therefore, the bank has a commitment to explicitly include social and environmental criteria, including that related to climate change, in all its business. It will select customers that meet its sustainability standards and it will review its commitment to any customer or transaction in which these standards are no longer met.</p>
<p><b>NIBC (Nationale Investeringsbank Capital) - Sustainability Policy</b></p> <p>NIBC is aware that it operates in a complex world where natural resource constraints, climate change</p>	

business areas. In addition, there must be more systematic internal procedures to enable the actions and results to be monitored and the achievement of goals to be defined in advance and to be disclosed. Institutions that have these initiatives set up on a systematic and regular basis can head this process, sharing experiences of best practices in the proper forums, since the problem is not localized and the solutions can suit many different institutions, who together can create a successful method for the development of a low-carbon economy.

Table 7 shows how some international institutions have positioned themselves, assuming commitments regarding this matter and how they intend to implement these commitments.

UNDERSTANDING THE CORPORATE IMPACT AS A WHOLE

In addition to the corporate commitment and procedures to be

adopted for the institutional strategy to the coherent, it is important to consider the interrelationship between all the activities of the bank. For this to happen, it is essential for the institution to have extensive knowledge of its aggregate impact, that is, not only the impact of its operations (administrative), but mainly the impact of the financed operations.

In regard with the calculation of GHG emissions from bank operations, we point out that all institutions under study are engaged and have already made inventories. Bradesco, Itau, Unibanco and Banco Santander are members of the Brazil GHG Protocol Program. Most have targets to reduce and offset operational emissions, although there is still much room for improvement given that the goals are related to bank invoicing and are not absolute.

For this sector the key issue is related to indirect impacts, in other words, financed emissions. Therefore, there is room for a

great deal of progress, given that none of the banks analyzed calculate the emissions arising from the bank’s business. Of course, the fact that this information is not known, prevents reduction targets for this type of emission to be established.

Considering that specific methodologies to account for financed GHG emissions are being developed at an international level, we recommend Brazilian financial institutions to start working in this direction. Some international financial institutions already include their financed emissions in their inventories and have already set voluntary targets, as illustrated in Table 8. The difficulty involved in initiating a job like this is understandable, therefore, some institutions have begun to measure their financed emissions by project, such as the IFC for example. The GHG measurement by financed project is provided in the Equator Principles, therefore, the signatories are pointing in this direction. HSBC, for example, still does not have its own methodology, but its clients are committed to providing the measurements and reduction targets while they do the verification and monitoring of this requirement.

One possibility would be for the banks to work in partnership, for example, through the Brazilian Federation of Banks (FEBRABAN) which could take on the leadership role, ensuring the standardization of the methodology, so that comparisons



TABLE 8: INTERNATIONAL REFERENCES - METHODOLOGIES OF FINANCED EMISSIONS INVENTORY

<p><b>IFC Carbon Emissions Estimator Tool (CEET) Methodology</b></p> <p>In addition to measuring its operational footprint, IFC has begun measuring the GHG emissions associated with its direct investment activities (activities through financial brokers will be analyzed in a second stage) to identify potential mitigation opportunities and assess the business risk linked to a future of restricted carbon. For this work, the IFC has developed The Carbon Emissions Estimator Tool (CEET), based on the tool developed by the Agence Française de Développement (AFD) and consistent with the widely used GHG Protocol methodology. CEET provides a simple way to estimate the emissions of a project.</p> <p>Since 2009, IFC began requiring estimates of GHG emissions for all new direct investments. In addition, it began a parallel process to review all investments in its portfolio, to better understand the advantages and disadvantages of development vis-à-vis GHG emissions in its portfolio. As a next step, the IFC will develop GHG intensity metrics and methodologies to assess the positive impact on emissions associated to its consulting services. Appropriate methodologies to assess the impact of its investments in financial intermediaries will be developed in the next phase of its GHG accounting work.</p> <p><b>WRI Methodology for Financed Emissions</b></p> <p>In 2009, the World Resources Institute (WRI), under the GHG Protocol, published a study (Accounting for Risk: Conceptualizing the Robust Greenhouse Gas Inventory for Financial Institutions - SHALLY VENUGOPAL, CLAY RIGDON, FLORENCE DAVIET) that includes considerations for the development of a methodology for calculating financed emissions. The study raises issues about the objectives, options and challenges for financial institutions and stakeholders that should be</p>	<p>considered when developing and evaluating GHG emissions inventories.</p> <p>Financial institutions are important players in the transition to a low-carbon economy, because they act as market makers, providing capital and advisory services, directly affecting growth or the decline of both dirty and clean industries. For this reason, financial institutions can generate benefits of reputational and financial order in the pursuit of environmental goals and to consider risks related to climate change in its activities.</p> <p>Since emissions related to the investments and services of financial institutions can provide a significant portion of their inventory and, therefore, of its risks, the study suggests two accounting options:</p> <ul style="list-style-type: none"><li>■ <b>Using an equity share approach to capture emissions from relevant proprietary investments.</b></li><li>■ <b>Reporting relevant indirect emissions related to debt and equity investments and other products, services, and financial contracts.</b></li></ul> <p>Given the practical and conceptual complexity in creating an inventory that includes emissions from investments and services it is important for financial institutions to demonstrate environmental stewardship to stakeholders (for ex.: managing reputational risk) and to inform their risk management practices for proprietary investments and managed investments.</p> <p>The inventory ultimately should facilitate positive environmental outcomes, namely, the reduction of GHG emissions and serve as a business imperative. Establish GHG reduction targets as well as monitoring and reporting on progress made is crucial to achieve environmental objectives and also to manage risk.</p> <p><b>Other methodologies of financed emissions</b></p> <p>Other existing methods are:</p> <ul style="list-style-type: none"><li>■ <b>French association ATEPF's methodology:</b> for retail banks, it is climate label initiative of the Association for the Transparency and Labelling</li></ul>	<p>of Financial Products mentioning the carbon intensity of activities financed by retail banking products (June 2008).</p> <ul style="list-style-type: none"><li>■ <b>Utilities Portfolio Emissions Reduction Methodology:</b> methodology used by Bank of America for its portfolio of public utilities. A calculation of GHG emissions is made based on data from several sources including the U.S. Environmental Protection Agency and Emissions and Resources Generation Integrated Database (eGRID).</li><li>■ <b>AFD Carbon Footprint:</b> specific methodology for Project Finance, which represents a simplified analysis tool developed by the French Development Agency to calculate emissions of development projects, also focusing on their vulnerability to climate change. The aim is to allow project managers financed by AFD to analyze their carbon content by integrating climate change (2007 January).</li><li>■ <b>envIMPACT:</b> methodology for the asset management area. Includes 1, 2 and 3 scopes of the GHG Protocol which guides GHG emissions of companies along the value chain of its products and services. Investors can calculate the carbon footprint of their investments, create low-carbon portfolios or reduce the carbon intensity of existing portfolios. According to the evaluation of the Bank Track, this methodology is the best among those available because it allows financed emissions to be calculated in the value chain as a whole.</li><li>■ <b>Portfolio Carbon Footprint:</b> methodology for the asset management area: Trucost's Portfolio Carbon Footprint enables investors to assess the carbon footprint of their investment portfolios in relation to global benchmarks. It is an important tool for investors looking to manage the financial risks caused by the transition to a low-carbon economy and to report the result to clients and stakeholders (methodology more limited to scopes 1 and 2).</li></ul>	<p><b>Milieudefensie Study</b></p> <p>Also in 2009, the Dutch NGO Friends of the Earth Netherlands (Milieudefensie) in partnership with the BECO Group (a human resources company specialized in temporary professionals in the areas of engineering, manufacturing and architecture) published a study on the seven existing methodologies for calculating financed emissions: Trucost, Profundo, Platform, Utopies, CenSA, PACE and Ecofys. The study pointed out that these methodologies are still very recent and although some mention important issues such as 'double counting', assessment of uncertainties and verification of methodology used, none of the seven methods enters the details required for the accurate calculation of financed emissions.</p> <p><b>International References: Reduction targets for financed emissions</b></p> <p>BankTrack highlights in its website the institutions that already have financed emissions reduction targets in place as follows:</p> <p><i>Bank of America:</i> evaluates and reports the GHG financed emissions of its energy and utilities portfolio. This is a useful start, but it needs to be extended to other sectors with heavy GHG emissions, such as manufacturing, transportation and agriculture. In 2007, Bank of America committed to reduce by 7% (by 2009) the GHG emissions to its energy and utilities portfolio.</p> <p><i>OPIC:</i> Overseas Private Investment Corporation in 2010 promised to adopt an annual emissions limit to reduce GHG emissions in its project portfolio by 30% over the next 10 years.</p> <p><i>DEXIA:</i> In 2008, the bank pledged to reduce the amount of CO<sub>2</sub> by 0.6 tons of CO<sub>2</sub>/MWh representing 3.5% a year as of 2005. As such, Dexia regularly evaluates the intensity of CO<sub>2</sub> of its portfolio to ensure the achievement of this target.</p> <p>All banks should set similar annual reduction targets to ensure that long-term progress is made.</p>
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TABLE 9: INTERNATIONAL REFERENCES - INTERNAL MULTIPLIERS

HSBC Climate Partnership - HSBC's Global Initiative, held in partnership with four international institutions aimed at environmental conservation and scientific research: The Climate Group, Earthwatch Institute, Smithsonian Tropical Research Institute and World Wildlife Fund (WWF). It is expected to invest USD 100 million over five years (2007-2011). This fund backs the development of projects, research and engagement actions. With the participation of HSBC, regional climate centers were created in China, India, England and the United States. The centers are bases for the research of climate change and training of employees in environmental issues. Brazil is hosting the Regional Climate Center in Latin America, where employees from all Latin American countries are trained with the bank in attendance. HSBC Climate Partnership's main objective is to inspire individuals, corporations and governments to fight the effects of climate change, through both internal actions as well as community-oriented initiatives.

This main objective is divided into four specific

objectives:

1. **Support the development of cleaner and greener cities and help to disseminate them to the world as models of management and innovation;**
2. **Coordinate the largest field study on the effects of climate change in the long term and its impact on forests in different parts of the world;**
3. **Protect some of the largest rivers in the world and the people living around them;**
4. **Train HSBC employees through online courses on climate change, providing volunteer environmental, scientific and support opportunities for the management of direct and indirect impact of operations, with the effective participation of 22 thousand people in 2009.**

In addition to engaging its employees, HSBC Climate Partnership also requires that its employees become multipliers in their respective areas. It is part of the program, that at the end, the employee develops an activity, or a product/service that connects the topic of climate change with the activities of the bank.

can be made and can be useful both for the internal management of these emissions and for the decision-making process. Working together also makes it possible to establish reduction targets and to work collectively to achieve the goals, given that part of the emissions may come from the same clients and projects. A strategy that could be adopted at first could be to use an estimate of emissions per project. Even if still far from ideal, it begins to develop ways of measuring financed emissions and understanding the true aggregate impact of the institution.

INTERNAL MULTIPLIERS

In addition to the commitment and the existence of established procedures, it is

important for the employees to be aligned so they can act as agents of change. To do so, there must be internal training programs that allow agents to receive information and become multipliers within and outside their organizations.

HSBC, for example, has the global Climate Partnership program, in partnership with WWF, The Climate Group, the Earthwatch Institute and the Smithsonian Tropical Research Institute. The program aims to train employees and develop multipliers within the institution so they can understand how they can help to fight the threats of climate change. More information about the program is described in Table 9 of international references for the training of internal multipliers. In order to ensure

the effectiveness of the multiplication of knowledge, it is important to monitor these actions with targets and indicators monitored by senior management.

The institutions surveyed in this study, except HSBC, are part of the Business for the Climate (EPC), participating in training activities for business leaders in the area of climate change. Through these activities, participants, employees in general of the sustainability area, should reflect on the corporate policies of their institution, as well as on strategies for the reduction of GHG emissions. This initiative enables the employee to bring back to the organization the issues discussed during the meetings, disseminating new concepts within the institution. However, for this process to reach its maximum effectiveness, the employees must multiply their knowledge in a systematic way, including the senior management of the institution, which must be engaged and must take part in the process.

In general, institutions must go beyond offering internal training programs, and developing committed multipliers, they must also enable the concept to be disseminated throughout the entire organization and not only in the sustainability area of the institution. To render it truly effective, the training must range from senior management to the sales team, which acts at one end with the client and should be ready to guide the client. Furthermore, the

monitoring of the effectiveness of these programs must be systematized, as well as an after-training action plan.

ENGAGEMENT WITH STAKEHOLDERS AND TRANSPARENCY

The corporate climate change strategy should be transparent and should include dialogue with stakeholders.

According to this survey, the four institutions show concern with engaging the stakeholders and with transparency. They all publish annual a sustainability report, develop work with Bank Track and respond to the Carbon Disclosure Project (CDP), and Santander is the sponsor of CDP in Brazil. In addition, the participation in the Business for the Climate (EPC) (with the exception of HSBC) is a form of participation and engagement, of which one of the goals is to make recommendations for the development of public policies for a low-carbon economy in Brazil.

There are specific initiatives to raise the awareness of clients, such as the Climate Confidence Monitor detailed in Table 10, and the Eco Schools Climate Initiative, which introduces the awareness theme in local communities, both are HSBC initiatives. Itaú Unibanco held a series of talks with the participation of experts on the subject. Bradesco and Santander worked the issue with their suppliers, Santander has developed a structured program to raise the awareness and prepare the suppliers.

TABLE 10: INTERNATIONAL REFERENCES –  
ENGAGEMENT OF STAKEHOLDERS AND TRANSPARENCY

<b>Cooperative Bank</b> In its annual report, the Co-operative Bank clearly reports its sustainability actions focusing primarily on climate change, including the strategic planning and the action plans for the respective areas, which include a description of the actions, the materiality tests, the objectives achieved and the next challenges. It also details the funding that it rejected due to it not being aligned to its strategies, both qualitatively and quantitatively. In addition, it details all the engagement actions adopted by the resource management area in the year, such as shareholder resolutions, letters of engagement, among others. Also in 2009, it supported the The Wave campaign of the international Oxfam organization, which attracted around 20 thousand people in the UK 15 days before COP 15 to warn world leaders of the need to establish and secure a fair deal to mitigate future risks of climate change. Also in 2009, it joined the WWF in a campaign to	make the disclosure of GHG emissions mandatory. <b>Caisse d'Epargne</b> Stands out for the transparency adopted in its products and services. The French bank uses the French association ATEPF's methodology to calculate the GHG emissions of each financial product. Thus, when purchasing a product the customer receives information about its carbon footprint. The final elements of the methodology have been published on the Internet and made freely available for use by other banks. <b>HSBC Climate Confidence Monitor</b> An initiative taken with clients to help the institution define its strategies. It consists of an online survey of worldwide consumers about issues that they consider most relevant at the national and international level in relation to climate change. In 2010, the survey was taken by 15 thousand collaborators in 15 countries. Based on the responses of consumers, a window of opportunities opens to those of the institution.
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However it is necessary to improve the openness of information, especially about the products and emissions on which there is no detailed information. Banks should incorporate the practice to disclose complete, sufficient, systematic and periodic information to its clients, in particular in relation to climate change. The reports of accountability need to be more descriptive

with respect to climate change, the impact of the institution and its risks.  
With regard to engagement with stakeholders, systematic and regular procedures for discussions with society must be established and must integrate the decision-making process of the institution in the adoption of commitments, the development of products and the methodology

for measuring the impact of business, among others. This discussion should also make allowances for internal reflection, followed by actions to improve the processes.  
Apart from individual initiatives, there are sector initiatives for self-regulation, especially under an international and a Brazilian scope.  
In November 2010, the United Nations Environment Program Finance Initiative (UNEP - FI) in partnership with Institutional Investors Group on Climate Change (IIGCC), Investor Network on Climate Risk (INCR) and Investor Group on Climate Change Australia / New Zealand (IGCC) and with the support of the Principles for Responsible Investment (PRI) published a declaration in which investors request measures from government and international institutions regarding the policies and financial investments needed to drive private investments in a low-carbon economy.  
However, this initiative must be ongoing or else the progress made based on the recommendations in the declaration may run the risk of losing strength. UNEP FI has a specific work group on climate change, which regularly publishes the sector engagement initiatives and, in addition, content reports on various topics within the context of climate change and the financial sector such as REDD, adaptation, energy savings, renewable energy, among others.  
In Brazil, there are some initiatives that

seek to encourage banks to adopt practices related to climate change. One is the Green Protocol, through the newly created Index Matrix, and another is the questionnaire of the Corporate Sustainability Index of BM&FBOVESPA (ISE). Both address this issue and evaluate banks in relation to the strategies, policies and practices that can contribute to fighting climate change and its impacts. Although the ISE methodology included the subject in 2010, a new dimension was added to the questionnaire that deals exclusively with this theme, giving it greater prominence and relevance. Launched in 2010, the Green Protocol Index Matrix in turn has specific questions about the topic, including the evaluation of financed emissions.  
It is important for these initiatives to be continued, gaining strength and importance in the agenda of the financial sector, so that solutions are built collectively within the sector, to leverage the positive impacts and promote low-carbon economy. However, in order to ensure efficiency and prevent the sector initiatives from falling into the trap of 'many promises and little action,' it is essential to establish a clear governance, especially within the context of self-regulation initiatives of the sector, that establish the effective monitoring of actions made and accountability, ensuring credibility and effectiveness to the initiatives and the possibility of obtaining results.

**TABLE 11: INTERNATIONAL REFERENCES – SOCIAL AND ENVIRONMENTAL RISK IN CREDIT/RISK AND SECTOR POLICY ANALYSIS****IFC Performance Standards and climate change**

IFC's investment projects and financing are guided by their social and environmental policy, in addition to the eight performance standards, for healthcare and safety guidelines, for transparency and disclosure and for use of guides. In the past two years, IFC has undergone a process of reviewing its policy and the performance standards and was approved by the Council on 12 May 2011. This new version that will come into effect on January 1, 2012 contemplates more explicitly the climate change matter.

In the general sustainability policy, the commitment to fight climate change is clear. The third performance standard, formerly called 'Pollution Prevention and Reduction' was renamed to 'Resource Efficiency and Pollution Prevention' and changes were made that gave prominence to the climate change issue, such as strengthening of the focus on energy efficiency and GHG emission measurements. In addition, the revised standard includes more information on CO<sub>2</sub> emission from clients, reducing the minimum threshold of GHG from 100 thousand to 25 thousand tons a year to be mandatorily reported to the IFC. In performance standard 4, 'Community safety and health' was incorporated into the analysis

of climate change risk to surrounding communities caused by the financed projects.

The adjustment issue is intended as a basic aspect of climate change in the guidance notes of the performance standards, and it may offer potential risks to clients (such as heavy rain followed by flood risk and/or landslides), and, therefore, must be introduced from the creation of the project up to its operation.

**HSBC sector policy**

In January 2011, HSBC launched its credit sector policy for the energy sector. In this policy, the bank sets a priority for operations that contribute to reducing GHG and that are aligned to the low-carbon economy, in addition to determining a ceiling for the intensity of emissions of thermoelectric projects to be funded. The bank also has a specific policy for land use activities and forest products, in which it agrees to only finance customers who meet the sustainability criteria of the sector, such as independent certification, which guarantees legality and sustainable management. In addition, HSBC also records in the sustainability risk assessment for corporate credit, the existence of GHG reduction policies and targets for 5 sectors: chemical, forestry, mining and metals, freshwater infrastructure and energy.

**Dexia energy sector policy**

Dexia is a major funder of the energy sector. Due to the size of the sector and the negative impacts that some technologies can cause to society and the environment, Dexia defined a sector policy that assures the following:

- **Support the development of the value chain of sub-sectors such as energy production, transport, refining, liquefaction, storage, distribution, sale and demand management.**
- **Promote energy transition, which consists of changes in production, transport and energy use required to (i) maintain the maximum level of 450 ppm of CO<sub>2</sub> equivalent in the atmosphere by 2030, (ii) establish a relationship between price and demand of energy, which allows it to reach a level of offer consistent with the necessary evolution of Human Development of the United Nations (HDI) and (iii) reduce the population currently with no access to energy.**
- **Minimize the environmental impact of the energy infrastructure currently funded by Dexia, based on existing technologies**
- **Not violate human rights as defined in the UN Charter.**
- **Be consistent with the set of commitments undertaken in terms of corporate social responsibility such as: The Equator Principles, the Global Compact, the Declaration on Climate Change by the Financial Services Sector (UNEP IF).**

Dexia does not exclude funding, consulting or other financial services to any part of the energy sector a priori, provided that the above guidelines and others specific to the sub-sector are complied with.

**Sustainable Asset Management (SAM) Study: Banking and Climate Change**

The SAM study conducted in 2009 "Banking & Climate Change: Opportunities and Risks – An Analysis of Climate Strategies" evaluated 114 publicly-traded banks around the world into four categories: climate strategy, emissions reduction in its operations, incorporation of the matter in its business and climate governance.

Here are some examples of good practices on how to incorporate the risk of climate change in business:

Examples of good practices set out by SAM:

*ANZ, HBOS, UBS and Westpac:* use risk management tools in financing and investments that address climate change;

*HBOS and ANZ:* Includes climate change risk in customer rating, equity research and valuation of companies under evaluation for investment.

*HBOS:* applies higher risk premium for customers with high exposure to the effects of climate change

*UBS:* has specialists who assess and integrate climate change risks in company valuation

## 2 MAPPING OF RISKS OF CLIMATE CHANGE IN THE CREDIT AREA

<sup>[7]</sup> Project Finance – Financial structure that aims at making a certain investment project feasible. In some cases, a specific-purpose company is created to separate the project from the shareholders. This structure is usual for infrastructure projects due to the existence of a predictable flow of revenue.

Climate change can involve physical, economic, regulatory, and other risks to a financial institution. The first step towards dealing with the issue is to be aware of the existence of these risks, assess them properly and establish processes to mitigate them.

The four institutions have areas of social and environmental risk management that include the climate change issue, consisting of cross functional teams, trained to perform complex analyses of social-environmental risk before granting financing

All of them have social and environmental risk credit policies that can be developed into specific formal procedures. In some cases these procedures are restricted to Project Finance<sup>7</sup> projects, in other cases they extend to virtually every analysis of corporate credit. Some institutions also have more specific policies such as sector policies that consider the issue of climate change. However, it is not recommendable to isolate the concept of climate change without taking into consideration other social and environmental risks. It is necessary

for the prior analysis and the supervision to be coherent after the funds have been cleared in order to prevent improper project incentives that are less damaging in that which refers to climate change but that have a negative social environmental impact. Is also worth stressing the importance of these procedures in large Amazon-based infrastructure projects, given that these are becoming more routine and have a huge climate-related and social and environmental change impact.

Table 11 shows some examples of social-environmental and sector risk policies that consider the risk of climate change in the risk/credit analysis. Policies that require emissions ceilings from clients in funding

is a clear example of an objective and clear policy of simpler implementation. In addition to these policies, specific procedures must be put into place for this policy to be made effective, in addition to specific safeguards with respect to climate change.

In addition to the procedures to be implemented, there is still a lack of understanding, in both breadth and depth, of the risk of climate change for funding prior to its approval. It is important to first understand the risks of climate change for a financial institution, for example, how such can affect the payment capacity of its clients who have been affected by new regulations, by market demands related to emissions, or even physically due to natural



ADVANCES	CHALLENGES	RECOMMENDATIONS
<ul style="list-style-type: none"><li>➤ Areas of <b>social and environmental risk management</b>, consisting of cross functional teams, trained to perform complex analyses of social-environmental risk before approving credit financing</li><li>➤ <b>Social and environmental risk credit policies that can be developed into specific formal procedures</b></li></ul>	<ul style="list-style-type: none"><li>➤ <b>Understand and quantify the risk of climate change</b> for a financial institution<ul style="list-style-type: none"><li>➤ <b>Little understanding and knowledge regarding adaptations involved with climate change</b></li></ul></li><li>➤ <b>Availability of information</b> to better analyze climate change risks</li></ul>	<ul style="list-style-type: none"><li>➤ <b>Improve information systems</b>, including climate change risks in <b>contractual terms and in rating calculations</b> among others</li><li>➤ <b>Create or enhance centers of excellence in applied research</b> focusing on climate change risks for the financial sector</li><li>➤ <b>Develop procedures and monitoring systems</b> for approved financing that enables risk evolution to be monitored</li></ul>

disasters arising from climate change. The possibility of clients being held responsible for liabilities as yet unmapped, but that may be in the future must be taken into consideration; as well as a number of other reasons that need to be mapped and understood. This would enable the information systems to be enhanced, including climate change risk in contractual terms and in rating calculations, among others. However, the inherent difficulty to assess and quantify climate change risk is well known mainly because it is primarily a long-term risk. Despite being a matter of great complexity, such risks must be analyzed and decoded.

One way to understand these risks, already adopted by some institutions (as shown in Table 12), is to create or develop in conjunction with centers of excellence, applied research aimed at climate change risks in the financial sector. HSBC stands out among the institutions surveyed due to its center of excellence for research on the subject and has published 30 reports over the

past 30 years in several areas, from industry-specific risks to those related to market trends, business opportunities and others.

Another important point worth mentioning is the lack of information on the subject, which can be easily accessed by financial institutions and used in their social and environmental risk analysis. As can be seen, in addition to working together with government, there is also an opportunity to interact and collaborate with NGOs, which often already have some of this information of interest for the financial sector, however, it may not be systematized or available in the format required by the institutions. A coordination plan and a joint effort would help to solve the issue of access to information in a shorter period of time. The Brazilian Panel on Climate Change, for example, may become a great channel for this exchange of information, as shown in Table 13.

It is necessary to understand and expand the knowledge on adaptation to climate change, through studies and projects. According to the results of the

TABLE 12: INTERNATIONAL REFERENCES - CENTERS OF EXCELLENCE TO MEASURE RISKS AND OPPORTUNITIES

<p><b>HSBC Center of Excellence on Climate Change</b></p> <p>Created in 2007, this center studies the economic risks and potential opportunities arising from climate change for the financial market. Its goal is to assess the implications of climate change for the HSBC Group, its Global Research division and other business units. With a team of experts initially based in Bangalore, the center serves as a catalyst to increase scientific, regulatory and economic understanding of climate change. The center works closely with the leaders of HSBC Global Research and analysts.</p>	<p><b>Deutsche Bank Climate Change Investment Research (DB Climate Change Advisors)</b></p> <p>To enhance its leadership position, DB Climate Change Advisors (DBCCA) recently created a research center in New York and London with a team specialized in specific climate change issues.</p>
<p><b>Allianz Center of competence for climate change</b></p> <p>The Allianz Group has a center dedicated to climate change, Allianz Climate Solutions (ACS) that serves both units of Allianz as well as its customers, providing risk analysis, investments and insurance. It</p>	

<p>is responsible for formulating and implementing the climate change strategy and it represents the Allianz Group in national and international discussions and partnerships on climate change, including the UNEP - FI and other international entities. ACS provides expertise and consulting services for several Allianz companies on renewable energy, clean technology and carbon markets at the country, company and project level. In addition, the center encourages and coordinates the integration of environmental issues and climate change criteria related to the operational business of the Allianz Group, supporting the development of new products and green solutions for growth markets.</p>
<p><b>Rabobank Clean Tech Research Desk (CTR)</b></p> <p>The main focus of CTR is to provide clean technology research in the following sectors: biofuel, wind and solar energy, carbon, geothermal energy, biomass and water. Currently, the team consists of about five dedicated people and operates in conjunction with other Rabobank analysts, which is composed of around 80 professionals of the agribusiness area.</p>

TABLE 13: PBMC - BRAZILIAN PANEL ON CLIMATE CHANGE

<p>PBMC was established based on the Intergovernmental Panel on Climate Change (IPCC) and aims to gather, synthesize and evaluate scientific information on the relevant aspects of climate change in Brazil. The information provided is based on an integrated assessment of technical and scientific knowledge produced in Brazil or abroad, on the causes, effects and projections related to the impacts of climate change. This information is disseminated through the development and regular publication of National Assessment Reports, Technical Reports, Summaries for Climate Change Decision Makers and Special Reports on specific topics.</p> <p>The Panel is structured into Plenary, Board of Directors, Scientific Committee, Executive Secretariat, Work Groups 1, 2 and 3, Task Force on Methodologies for Greenhouse Gas Emissions Inventories and Technical Support Units.</p> <ul style="list-style-type: none"><li>■ Work Group 1 - Scientific Basis of Climate Change</li><li>■ Work Group 2 - Impacts, Vulnerabilities and Adaptation</li><li>■ Work Group 3 - Mitigation of Climate change</li><li>■ Task Force - Methodologies for greenhouse gas inventories</li></ul>
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TABLE 14: UNEP-FI STUDY ADVANCING ADAPTATION THROUGH CLIMATE INFORMATION SERVICES

The study of UNEP-FI launched in June 2011 “Advancing adaptation through climate information services: Results of a global survey on the information requirements of the financial sector” refers to the need of the financial sector getting risk information directly from the impact of climate change. Mitigation today is a priority, therefore, this study aims to focus on how to subsidize the strategies to adapt to climate change for the financial sector. For such, a survey was made with sixty financial service providers through a survey conducted by the UNEP Finance Initiative and the Sustainable Business Institute (SBI) in Germany.

The survey showed that to manage climate risks that may affect their business portfolios, more information is necessary. This includes forecasts, analysis and interpretations. Here are some of the main results:

- **The majority of the survey’s participants expect risks related to climate change to be more relevant**

- in the future for the financial sector**
- **Less than half of the respondents feel sufficiently well informed and one third feels “sufficiently informed” on the subject**
  - **The available information is not reliable enough for many purposes in the financial sector and those that are available are not easy to understand**
  - **The survey results show a big difference in quality and quantity of information for different continents**
  - **Most of the respondents are willing to cooperate with the data providers, research institutes and other partners on the development of different types of information**
  - **The interest of insurers and reinsurers is higher than average because they are more directly affected and urgently need to identify and quantify the risks of climate change**

The results of the study showed that climate knowledge is an emerging factor in competition and success within the financial sector.

study ‘Brazilian State-owned Banks and Climate Change’ (Table 4), financial institutions have until now clearly focused on mitigation actions and have not given much attention to the adaptation ones. If we are still discovering the ways to mitigate climate change and related risks, it is necessary to further understand the risks of adaptation to the country. Therefore, it is worth highlighting how important it is for these centers of excellence to focus on this issue, including in conjunction with public or private financial institutions, and also with government agencies that have started to develop work in this area, as is the case of one of the aims of the Climate Fund

(Table 3) or the Brazilian Climate Change Panel (Table 13). A possible way to start this work would be to initially understand the risk of extreme events and vulnerabilities of climate change and then later focus on the understanding of long-term risks that have a dynamic that is more difficult to change. It is a complex path, but that can be traveled. The climate change work group of UNEP-FI has given special attention to adaptation, as shown in a study published in January 2011 detailed in Table 14. Lastly, and equally necessary, is the need to invest in a monitoring system for approved financing which allows the evolution of risks to be tracked. Some of the institutions

surveyed, in their cross functional social-environmental risk teams, already have areas dedicated to this monitoring, however, from

the standpoint of the sector there is still much room for improvement. This issue will be discussed in more detail in the next session.

3 PRODUCTS AND SERVICES

To effectively move ahead on this issue, it is important to change the understanding of the consequences of climate change to generate only risks for financial institutions. There is, besides the risks, a number of business opportunities that can be enjoyed by financial institutions, while helping to promote the low carbon economy. Many of their customers will have to adapt to the new realities. For example, a customer who currently seeks funding for the planting of sugarcane on his farm, in some years may have to adapt to a new reality where he

has to reinvent and invest in another crop, because the weather may have changed the conditions that are favorable for that type of plantation. This is a clear example of adaptation, and the financial institution may be present in this transition, provided that it can understand how this transition will occur. The first step to ensure a mutually beneficial relationship is to understand and learn how to identify where these opportunities may appear, which can be done through the centers of excellence in knowledge, as mentioned in Table 12, in

ADVANCES	CHALLENGES	RECOMMENDATIONS
<ul style="list-style-type: none"><li>➤ Transference of specific creditlines of the National Social and Economic Development Bank (BNDES) to promote low-carbon economy</li><li>➤ Offering of own products with social, environmental additionalities and those related to climate change in several business areas</li></ul>	<ul style="list-style-type: none"><li>➤ Low use of specific BNDES lines</li><li>➤ Low representativeness of products related to the issue as compared with the total amount of products and services offered</li><li>➤ Absence of products aimed at the adaptation of climate change (if they exist, they are not identified as such)</li><li>➤ Result monitoring</li></ul>	<ul style="list-style-type: none"><li>➤ Ensure greater effectiveness of products and services aimed at low carbon economy</li><li>➤ Re-evaluate the less desirable products, create incentives for customers and train the sales team</li><li>➤ Improve systems to simplify the credit granting process (together with other institutions)</li><li>➤ Develop and provide products for climate change adaptations</li><li>➤ Perform monitoring procedures to verify the effectiveness of products and services targeted at climate change</li></ul>



addition to offering products and services designed for this purpose and offered in an effective manner.

Initially one must consider that most of the institutions examined in this study transfers specific lines from BNDES aimed at encouraging a low-carbon economy. However it draws attention to the low usage of these lines, especially when compared with the use by state-owned banks.

All institutions offer products in several business areas, as described in their respective chapters. For comparison purposes only, HSBC provides a series of products in asset management and insurance, most under a global scope. Santander offers private equity funds aimed at renewable energy and environmental services, as well as a few funding lines and specific programs. Itaú Unibanco, in turn, provides philanthropic investment funds, which reverses part of the management fee for projects to fight climate change. Bradesco also offers some specific lines, in addition to some services related to philanthropy such as the SOS Mata Atlântica card.

However, these products and services, which have some relationship with climate change still carry very little weight in comparison with the full range of products and services in general, especially when compared with public financial institutions.

It is also worth pointing out that, under private financing, there are no labeled

products that contribute to climate change adaptation. Although, according to the financial institutions, there are already products that help clients exposed to vulnerabilities due to extreme events, such are not identified in this way for a number of reasons, including: (i) the products labeled with socio-environmental characteristics are not flexible and traditional products may or not include social and environmental additionalities, (ii) labeled products may lead to greater reputational risks than traditional products, (iii) tracking and monitoring the social and environmental additionalities of products add costs, therefore, only a few products are tracked. Understanding the constraints that may hinder the implementation of all recommendations made in the short term, we suggest starting this complex path in partnership with other financial institutions in order to ensure greater effectiveness to products and services tailored to the low-carbon economy.

Some recommendations hereby were also made to state-owned banks in the first volume of this study. One is the need to simplify procedures related to products, review the less attractive ones, carefully analyze their feasibility, and, above all, train the sales teams. One suggestion would be for banks to work in partnership with FEBRABAN and the government to improve the information systems that help simplify

the credit clearance process, as described in the session for the mapping of climate change risks in the credit area. With a single customer information system for the whole country, products can be cleared more easily.

It is essential for institutions to provide their employees with the right incentives so they can engage in selling products with social-environmental additionalities to customers and to offer real economic benefits in order to encourage the customers to purchase these products. The banks should also properly disclose their products and encourage their clients to acquire these 'green' products by emphasizing their advantages as compared with traditional products.

Another crucial aspect to be worked out by banks is the monitoring of the effectiveness of these specific products and services. Without this tracking, it is impossible to know whether the result expected was achieved because there is no way to check their social and environmental additionalities. We suggest the banks to invest in monitoring these products, considering their value chain. It is well known that these processes are not easy to implement and entail additional costs for the institutions, therefore, we recommend this to be a joint initiative involving professional entities, government and public financial institutions. In addition to internal processes, such as the documentary check, this monitoring requires making field visits

to check in practice what is proposed in theory. It is only in this way that it will be possible to develop a monitoring system that can actually measure the social and environmental additionalities and if such are reaching all those in the value chain.

It is strongly suggested that the banks develop or enhance products that also aim to adapt to climate change. Not just those for reconstruction after extreme events, but also those that identify vulnerabilities and opportunities for long-term customers that will necessarily go through transitions and changes due to climate change. Adaptation products can be developed and offered in partnership with state-owned banks, with transfers from BNDES and also the participation of government, to ensure greater representation and reduce the risk of default.

Table 15 illustrates the best international practices of different existing products and services with a focus on climate change as well as studies that talk about good practices of financial institutions in creating solutions for the funding of energy efficiency, renewable energy, among other topics related to climate change. Given the difficulty to secure the importance of the products, maybe a simpler way to starting the task would be to focus on reviewing the products of greater demand and ease of implementation, such as energy efficiency projects and adaptation for extreme events.

TABLE 15: INTERNATIONAL REFERENCES –PRODUCTS AND SERVICES

<p><b>Co-operative Bank</b></p> <p>Has a unit called Social Banking Unit, dedicated to helping organizations that target social, economic and environmental transformations. One of the strategies of this unit is to finance renewable energy and GHG reduction projects. The unit establishes annual targets to finance renewable energy.</p>	<p>for the financing of its projects to improve the energy efficiency of their homes. Both in Belgium and in Luxembourg, Dexia has offered loans at preferential rates to finance projects which, besides reducing their environmental impacts and energy costs, provide access to tax benefits or subsidies of the state.</p> <p>Eco-credit Housing/Green housing loan - Reduced rate loans for energy audits or the financing of energy efficiency projects carried out by an accredited company. Dexia offers two types of loans: a portion of the loan (Eco-credit housing) and a mortgage loan (Green housing loan).</p> <p>Immoplus Green - Loan at a variable preferred rate for the financing of housing that has energy efficiency.</p> <p>In Belgium, Dexia Bank has been offering products since 2007 that allow it to guide the business and public sector in the implementation of projects for the production of renewable energy, through the financing of work. As part of this offer, the clients can also benefit from photovoltaic cover insurance - Dexia Insurance Belgium - a product that earned Decavi the Innovation Trophy in 2010.</p>	<p>activities. This is specifically due to the government mandate and funds for such investments with different conditions;</p> <p>■ <b>The private financial sector is interested in energy efficiency, however, it is still having difficulty in obtaining a scale for this investment to be commercially appealing. The study shows one exception, in the U.S., where state and federal regulations have provided favorable conditions for this type of investment;</b></p> <p>■ <b>Innovative methods of funding are being developed in all areas.</b></p> <p>The study also pointed to some practices adopted by international financial institutions, such as:</p> <p>■ <b>BOFA: In 2007, the institution announced an investment of USD 20 billion, which includes investments in energy efficiency and renewable energy.</b></p> <p>■ <b>DEXIA: In 2006, 58% of its energy projects were related to renewable energy.</b></p> <p>■ <b>FORTIS: Renewable energy program with EUR 500 million. Projects in energy efficiency have yet to be developed.</b></p> <p>■ <b>MIZHUO: Aimed at renewable energies more than energy efficiency;</b></p> <p>■ <b>NEDBANK: Specific financing programs for energy efficiency;</b></p> <p>■ <b>YES BANK: Specific loan program for Energy Efficiency, and building and raising USD 300 million through a closed-end fund.</b></p> <p>In addition, the study points to some internal and external reasons for an increase in funding for energy efficiency such as: high prices and shortages of energy, concern with climate change that generate increased demand for energy efficiency, as well as the domestic concern of financial institutions to incorporate sustainability into their strategies. The study also points out challenges for the implementation of financial services for energy efficiency. Some recommendations are made for financial institutions and for the government.</p> <p>The main recommendations for financial institutions are:</p> <p>■ <b>Explicitly recognize the importance of energy efficiency at the board level</b></p> <p>■ <b>Create a mandate to establish internal energy efficiency resources from the operational areas up to</b></p>	<p>the creation of products</p> <p>■ <b>Create opportunities for financial institutions to work together in developing technology benchmarks in order to facilitate financing and technology transfer</b></p>
<p><b>Allianz products</b></p> <p>The group has developed over 70 products and services that help fight climate change or that take into account its impacts. Currently, Allianz's 'green products and services' meet individual or corporate customers worldwide and include insurance, asset management and other specific solutions. Some of the products offered are shown below:</p> <p>■ <b>Car insurance: products ranging from insurance discounts for hybrid cars, for individuals who use the car very little or use public transportation, including more sophisticated solutions, in which customers can choose to offset their emissions by purchasing insurance or exchanging them for hybrid cars after a claim has been made;</b></p> <p>■ <b>Property Insurance: provides special coverage for the use of renewable energy and green technologies in constructions;</b></p> <p>■ <b>Environmental liability insurance for pollution: special solutions for industrial clients, some products cover companies or farmers against weather-related events;</b></p> <p>■ <b>Asset management: offer funds that invest in renewable energy, water or sustainable technology companies; • Other solutions: financing of renewable energy equipment, issuance of securities by Allianz Re for natural disasters, carbon reduction insurance program.</b></p>	<p><b>UNEP FI study: Energy Efficiency and the Finance Sector</b></p> <p>Published in 2009, the research carried out by UNEP-FI "Energy Efficiency and the Finance Sector: The survey on lending Activities and policy issues - A report commissioned by UNEP's Finance Initiative Climate Change Working Group" aims to identify the current activities of the financial sector related to energy efficiency as well as a survey of what the financial sector thinks of this matter. The study aims to better understand the main achievements, challenges and recommendations for the financial sector to make progress in this area. The survey included:</p> <p>■ <b>How external motivators to reduce energy are impacting credit activities;</b></p> <p>■ <b>Specific issues of funding for energy efficiency;</b></p> <p>■ <b>Role of government in developing this market;</b></p> <p>■ <b>Other relevant issues for the evolution of financing and the investment of energy efficiency;</b></p> <p>The main findings were:</p> <p>■ <b>Public financial institutions are leading efforts to develop financial instruments and energy efficiency</b></p>	<p>the creation of products</p> <p>■ <b>Create opportunities for financial institutions to work together in developing technology benchmarks in order to facilitate financing and technology transfer</b></p>	<p><b>Sustainable Asset Management (SAM) Study: Investment in private equity and cleantech</b></p> <p>The SAM study conducted in 2010 "Cleantech Private Equity – Past Present and Future" aims to bring a vision of investment opportunities in clean technology to the private equity sector in coming years. The study begins by defining what clean technology is and the main motivations for investment in different types of clean technology. It then explains the different types of private financing as well as the investment outflow. The study also describes its vision of growth in capital markets in relation to investments such as wind and solar energy, electric vehicles, smart buildings and smart grid.</p> <p>The main conclusions reached in the study are: (i) there is a strong and growing global demand for clean technology solutions, (ii) private equity investments in cleantech have reached 9% of total investments and (iii) should continue to grow.</p> <p>Some numbers to highlight are:</p> <p>■ <b>Investments in Venture Capital since 2000 totaled USD 22 billion, mostly in North America</b></p> <p>■ <b>Investments in Development Capital and buyout investments since 2000 totaled USD 29 billion, mostly in North America and Western Europe.</b></p> <p>■ <b>Variable income investments since 2000 totaled USD 379 billion and were concentrated in Western Europe and the rest of the world</b></p> <p>■ <b>A total of 274 IPOs were carried out between 2000 and 2009, totaling USD 35 billion, 57% in the last quarter of 2009</b></p> <p>■ <b>613 mergers and acquisitions totaling USD 57.5 billion</b></p> <p>■ <b>244 clean technology investment funds amounting to approximately USD 34 billion</b></p>
<p><b>Dexia Products</b></p> <p>A pioneer in developing innovative financing solutions to improve the energy performance of buildings, Dexia aims to guide its clients in its projects and add value by providing a range of appropriate products and services and bridging the gap between the technical and financial issues.</p> <p>The bank offers to its clients effective solutions</p>			<p><b>SAM Study: Banking and Climate Change</b></p> <p>The SAM study conducted in 2009 "Banking &amp; Climate Change: Opportunities and Risks - An Analysis of Climate Strategies" 114 institutions were analyzed in four categories, one being products and services.</p>



➔

**Examples of good practices set out by SAM in products and services:**

**Dexia: public low-carbon services**  
Public transport and energy efficiency were the center of their actions in relation to local authorities, including the replacement of bus fleets and the structuring of financing for specials, as well as support for the energy efficiency of buildings and public service units;

**Fortis: carbon**  
Carbon and start green bank (venture capital in segments of lower impact) and incorporation of carbon in future cash flow models for project finances

**ANZ, Westpac and other banks: agricultural carbon**  
Projects in low-carbon farming

**Sumitomo Trust & Banking: property and climate change**  
Aiming at real estate investments, offers consulting related to energy, landscaping and the construction and expansion of life cycles, developing a recycling system

**Banco Espírito Santo: Luso Carbon Fund**  
Invests in energy efficiency, renewable energy, waste management and treatment, tree-planting and reforestation projects

**Co-operative Bank**  
Set climate change as a strategic issue and established offsets equivalent to one ton of carbon dioxide (CO<sub>2</sub>) for each car financed

ADVANCES	CHALLENGES	RECOMMENDATIONS
➔ <b>Start of adoption and implementation of cross functional methodologies</b> that address social and environmental issues (including climate change) in the areas of asset management, private equity and insurance.	➔ Lack of initiatives related to sustainability in business areas such as proprietary trade, private banking, mergers and acquisitions	➔ Organization of <b>working groups</b> , with short-term goals and monitoring indicators, to discuss global best practices, development of joint implementation <b>methodologies and full integration into business areas that are underway</b>  ➔ Start moving into other business areas that still do not address the issue.

4 OTHER BUSINESS AREAS

It is essential for the issue of climate change, which began in the credit area, to expand and permeate the institution as a whole, through the adoption of policies and procedures in other areas, such as asset management, private equity, investments, new businesses, such as the carbon market, among others, either to mitigate risks or capture opportunities. Although the focus is the incorporation of climate change in financing and other areas are worked in the background, it is essential to prioritize this issue also in other bank business areas, so that in fact the subject is aligned to the bank strategy as a whole.

Since all banks are already signatories to the PRI, it is a fact that there is already a public commitment to incorporate this issue in the analysis of companies in general, despite this movement still being in the implementation phase. In addition to the funds offered by all institutions that involve the analysis of companies with social and environmental criteria that include climate

change, some institutions have specific initiatives related to the matter. HSBC has already taken a step in that direction by creating a low carbon index and its respective funds, at a global level, and has launched at a national level, new funds with analysis methodologies that address climate change. Santander also has a few closed-end investment funds in green, renewable energy businesses, for example. Itaú Unibanco innovated by developing an internal methodology to assess sectors and companies in all its asset management area that considers climate change, incorporating the principles of the PRI in the heart of its strategy. HSBC aims at adopting its new methodology to analyze all companies within one year (2012). In turn, the introduction of the ICO<sub>2</sub> Index of BM&FBOVESPA also adds to this movement.

We suggest the continuity of the work in combination with the PRI with targets, indicators and planned actions in a certain period so that the incorporation of social and

environmental issues and in particular of the risks of climate change in the investment decision process of the asset managers is consolidated in the short term but that, nevertheless, continues to be long-lasting and effective. Note that some barriers to be overcome are: the lack of information on the subject, or lack of access to information relating to companies, the disparity in analysis methods, the lack of technical training of the internal staff to facilitate incorporation of the theme, among others that are being addressed in the work groups of PRI in Brasil and can be complemented with the work of the class entities. It is a complex implementation, however, large steps have already been taken in the asset management area. The inclusion of this topic in other business areas is difficult but possible. It is worthwhile mentioning an initiative of a work group of PRI, called Enhanced Analytics Initiative (see Table 16), which aims at boosting the insertion of the analysis with social and environmental criteria also in investment brokers, in addition to

asset management companies. This globally-known initiative is being implemented in the country. In global terms, social-environmental analysis in brokers of large financial institutions is already a reality. Entire cross functional teams are included in the brokers of Citi, Goldman Sachs and Merrill Lynch, among others. Initiatives such as that headed by PRI in Brazil<sup>[8]</sup>, when established with short-term goals, promises to create an environment and generate content for the movement to gain force in the country.

Another area that is starting to strategically work on the inclusion of social and environmental issues is the insurance area. The institutions surveyed who have insurance arms in Brazil, such as Itaú and Unibanco and HSBC, despite offering products with this theme, are still only starting to work on strategies aimed at climate change, as occurs with other world insurers. Itaú Unibanco is the only institution that offers, since 2005, liability insurance for environmental damage. However, since then no other product of

[8] The work groups of PRI in Brazil are managed by the local PRI representative and were divided into three large subjects: engagement with companies, creation of homogenous methodologies for the sector and recruitment of more signatories. A focal point of a signatory institution that is in charge of the virtual meetings and the development of the projects that the group coordinates was assigned for each topic.





TABLE 16: ENHANCED ANALYTICS INITIATIVE (EAI)

The goal of EAI was to encourage analysts to produce research that incorporates environmental, social and governance issues in order to allow fund managers to integrate them into their investment decisions. This very successful project helped to exponentially boost the research.

It occurs through the definition of extra-financial factors, such as those that are least likely to have a long-term effect on business results, but which are outside the usual portfolio of variables used by some analysts and that are rarely integrated into the investment decisions. Thus, analysts have models that show how to quantify or integrate extra-financial factors in investment decisions. With this information, analysts can think differently from the

market, which increases their prospects of high performance. At the same time, corporate managers gain a business case to improve their management, monitoring and reports on extra-financial factors.

In this way, a new generation of investors emerges that is focused on the long-term horizon and is better informed about the role that extra-financial factors play in determining stock prices. This new generation is also more able to integrate information from multiple sources into their decision making.

EAI has already signed a global partnership with the Principles for Responsible Investment (PRI) of the UN to provide access to such research on a greater scale.

given the uncertainties of this market in the global context and the consequent lack of demand for such services. This is an opportunity to be considered in financial institutions, noting that the carbon market alone will not solve problems related to climate change. Therefore, it would be wrong to focus on the core strategy of the financial institution only on this market.

In other business areas such as treasury, international trade, private banking, mergers and acquisitions, no initiative related to a broader sustainability or sustainability aimed at the development of a low-carbon economy was found. Therefore, we suggest a task force to begin to understand how other areas of business, its products and services, can address climate change, either to mitigate risks or to generate new business. We reiterate that sector work groups could be created to discuss the best global practices and the development of methods for joint implementation. One can also avail of the centers of excellence in climate change, as mentioned in the section on credit risk analysis. The gaps in other areas of the bank's business represent a great opportunity for private financial institutions to take the lead, innovate, create value and foster low-carbon economy. Table 17 provides some international benchmarks of business areas that have incorporated the theme into their strategies and practices.

[9] PSI – The Principles for Sustainable Development of Insurance are being developed in partnership with the UN and the insurance industry with the purpose of introducing into the insurance industry the best environmental, social and governance practices of the sector. Scheduled to be launched at the UN Conference on Sustainable Development (Conference Rio +20), in Brazil, it will represent a milestone for the contribution and long-term commitment of the global insurance industry in relation to the goals of sustainable development.

this nature has been developed. Currently, they are working internally on repositioning the area by creating an integrated strategy with social and environmental concepts, among which climate change, by making use of the development on a global level of the Principles for Sustainable Insurance<sup>9</sup> (PSI, the equivalent of PRI for insurance companies). HSBC offered two 'green insurance' products by the end of 2010, however, both had carried little weight in terms of relative volume. As such, they decided to do a new strategic repositioning job of the area and a new focus that includes a series of other initiatives, including preservation. We recommend broadening the focus

on this issue, considering that insurance companies worldwide have been pioneers in understanding the risks of climate change and preparing themselves for the expected change of scenery at a global level. Considering the early stage of this issue in the country, we suggest the creation of sector groups in partnership with the internal centers of excellence of the institutions, as mentioned in the risk management session. There is another business area within: carbon market area Bradesco and Santander developed these areas, with lines of credit for companies that wish to sell clean development mechanism (CDM) projects and advisory services for clients. These areas are still very small, especially

TABLE 17: INTERNATIONAL REFERENCES IN OTHER BUSINESS AREAS

<p><b>HSBC Global Asset Management</b></p> <p>Leading global asset management company with assets of approximately USD 453 billion (June 2011). As one of the world leaders in asset management in emerging markets, it operates through a network of offices in 30 countries. It has strong ties with companies, institutions and financial brokers of all sizes and types. It offers its customers worldwide an array of investment products including equities, fixed income, liquidity and alternative strategies. Its goal is to manage investment strategies focused on customer needs and long-term value delivery. HSBC Global Asset Management believes that good social and environmental risk management leads to opportunities that contribute to long-term business success. It believes that climate change poses the greatest environmental threat of this century and that, therefore, will impact the businesses in which it invests. To help it explore the implications of climate change, it has created a forum for collaboration between pension funds and other institutional investors on issues related to investment and climate change: the Institutional Investors Group on Climate Change (IIGCC). HSBC Global Asset Management manages funds such as: Climate Change Fund and the Environmental Infrastructure Fund to invest in socially responsible companies and in the fight against climate change.</p>	<p><b>Dexia Asset Management</b></p> <p>As a pioneer in the field of Socially Responsible Investments (SRI) since 1996, the analysts and fund managers of Dexia Asset Management are now dedicated to managing one of the largest SRI funds in Europe. It offers its customers performance evaluation in all terms of transparency, which means not only to inform and advise them on the criteria that respects the interests of all stakeholders, but also to be able to take into account the particularities and commitments of the clients. At Dexia AM, SRI is a long-term investment style that favors investments in shares and issuance of securities that are exposed to long-term trends such as:</p> <ul style="list-style-type: none"><li>■ Climate change</li><li>■ Resource Depletion</li><li>■ Demographic Evolution</li><li>■ Health and Wellness</li><li>■ Developing Economies</li></ul> <p><b>Deutsche Bank Asset Management</b></p> <p>Deutsche Asset Management pointed out climate change as one of the trends that drive the global business of asset management for the next generation. Deutsche Bank's role as asset manager is to guide investments in low carbon companies. As a merchant, the bank provides liquidity in the carbon market, and as an agent of the capital market may</p>	<p>increase the debt and equity to finance companies and clean technology projects. As advisors, the bank seeks to provide solutions to all customers who face the inevitable impact of climate change.</p> <p><b>SAM Private Equity</b></p> <p>Sam Private Equity is the market leader in the area of investment in clean technology. In 2009, it joined Robeco Private Equity and together they managed USD 2.5 billion in private equity assets, of which USD 1 billion was focused only on clean technology investments. Sam private equity has the research help of the Rabobank Clean Tech Research Desk and Sam Research, as well as the historical expertise of integration knowledge of social-environmental analysis in investment analysis. (ESG - Environmental, Social and Governance).</p> <p><b>Allianz Insurance</b></p> <p>Allianz has 40% of global insurance credits and natural disasters and climate change represent a threat to its business. The organization is turning the issue into an opportunity, through the development of new products and services and investing in new technologies. The insurance industry has always acted as an early warning system, helping businesses and society understand new risks. With the role of protecting customers against natural disasters,</p>	<p>Allianz recognizes the increasing regularity and severity of floods and hurricanes as a major risk, therefore, it is preparing for the effects of climate change. It believes that insurance companies have the need to adapt their products and services to take into account the risks of climate change. Insurance payments related to weather events, in turn, are increasing rapidly, with an increase of 15 times over the past 30 years. Since 2005, the Allianz Group adopted a strategy to deal with the issue of climate change. It set a goal to reduce carbon emissions by 20% to less than the 2006 levels by 2012. In addition, the group is working on the development of new green products and services through its center of excellence – Allianz Center of competence for climate change. Allianz Germany, along with Allianz Craftsmen Service, developed an energy service for its private clients. It is accessed online and includes an energy consumption calculator and a consulting service to help customers reduce their own CO<sub>2</sub> emissions. Another product is the Certified Green Buildings Insurance. This insurance offers a 5% reduction on premiums for commercial buildings certified under the evaluation of the United States Green Building Council. In addition, Allianz UK and Mondial France offer a diagnostic service for energy performance to clients who want to reduce their energy costs and carbon emissions.</p>
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## CONCLUSION AND KEY RECOMMENDATIONS

**A**fter analyzing the actions and strategies related to climate change adopted by the four major Brazilian financial institutions, it can be concluded that the matter is currently considered a priority and that a formal clear corporate commitment is in place, confirmed by the strategies under way in several business lines of the institutions and in their respective decision-making processes. The engagement actions are also being developed at all the institutions, particularly with regard to the staff. However, improvements still need to be made.

There is still a lack of understanding, both broad and deep, of the risk of climate change for funding prior to its approval. It is important to first understand what climate change risks a financial institution faces, including, for example, how climate change can affect the payment ability of customer who have been affected by new regulations, by market demands related to their emissions, or even physically due to natural disasters arising from climate change. The possibility that lenders will be held accountable for liabilities that have not yet been mapped but that will be in the future must also be taken into consideration. The understanding of this risk would enable the information systems to be enhanced, including climate change risks in contractual terms and in rating calculations, among others. However, the inherent difficulty to

assess and quantify climate change risk is worth taking into consideration mainly because it is primarily a long-term risk. Considering the complexity of the issue and the awareness involved, it is important to begin the process of modeling this risk within the context of the financial sector.

Taking into account the key points raised in this assessment, we recommend the sector to act on six fronts, namely:

- **FINANCED EMISSIONS:** Develop in partnership a methodology for measuring financed emissions, to better understand the aggregate impact of the institution and to help the sector as a whole to avoid the adoption of different methodologies, hindering understanding and comparison. One possibility would be for the Brazilian Federation of Banks (FEBRABAN) to lead this initiative. One possible way to start the work in the short term, would be to estimate emissions by project, according to the strategy adopted by the IFC.
- **TRAINING:** training in-house teams so they are technically qualified to put into practice the strategy of these financial institutions with respect to climate change.
- **TRANSPARENCY AND DIALOGUE:** Manage to clearly communicate the strategy and the practices of the financial institutions, especially with regard to financed emissions where the institution has more influence, discussing with stakeholders so that suppliers, customers and society



in general are aligned with the financial institution, united with the objective of developing a low-carbon economy.

- **RISKS AND OPPORTUNITIES:** create or enhance centers of excellence in applied research within financial institutions or in partnership (with governments or non-governmental institutions, among others) to broaden the understanding of

risks arising from climate change and the identification of business opportunities. These centers can help to understand the risks of climate change for the adaptation of financing and existing product lines, as well as to capture business opportunities in new markets. Due to the complexity of the issue, we suggest starting with matters that are currently visible, such as better





understanding the risks of extreme events due to climate change. Furthermore, improving availability of information, working with government and non-governmental organizations which often already have this information. Increasing dialogue, coordination, systematization and the dissemination of knowledge.

■ **PRODUCTS:** improve the processes of creation and revision of products, giving them more importance so they can effectively encourage low carbon

economy. The products and services must be aligned to the objectives of state-owned banks, government sector plans and the internal goals of the institution. As such, the decision-making flow must be clear with strategic well-defined objectives, goals, actions and indicators. Given the difficulty to secure the importance of the products, we suggest focusing the review on products of greater demand and ease of implementation, such as energy efficiency projects that can bring positive results

in the short term. As pointed out in the study of state-owned banks and Climate change, it is also essential to develop methodologies to assess the social and environmental additionality of a product. Although this tracking may be costly and the challenges complex, we suggest the creation of a partnership between state-owned and privately-owned banks and the government, to use synergies and avoid the duplication of efforts, thus increasing the chance of success.

■ **OTHER BUSINESS AREAS:** fully integrate the issue of climate change to other business areas, especially the areas of insurance and the management of asset management of those who have already started up activities, through existing work groups and opportunities identified in the very centers of excellence for climate change of each institution. Lastly, start a movement in other business areas that have not yet started to address the issue.



## APPENDIX 1

### INDIVIDUAL GAP ANALYSIS

Some considerations on operational emissions:

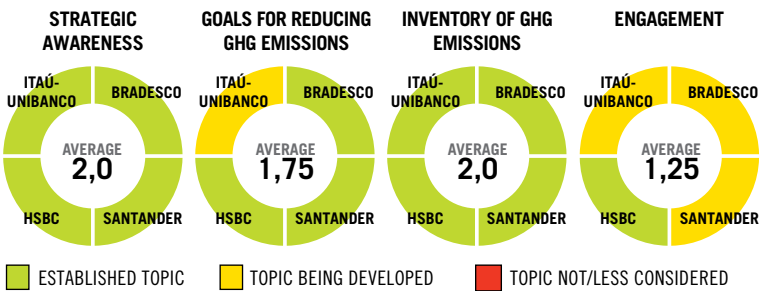
- In general, the issue of climate change has already been incorporated to the sustainability strategy of the four institutions.
- In general, all institutions make an inventory of operational GHG emissions and have a reduction target.
- In general, all institutions perform

engagement and internal training on the subject. Bradesco, HSBC, Itaú Unibanco and Santander participate in the EPC platform. HSBC has a global Climate Partnership and Climate Confidence program.

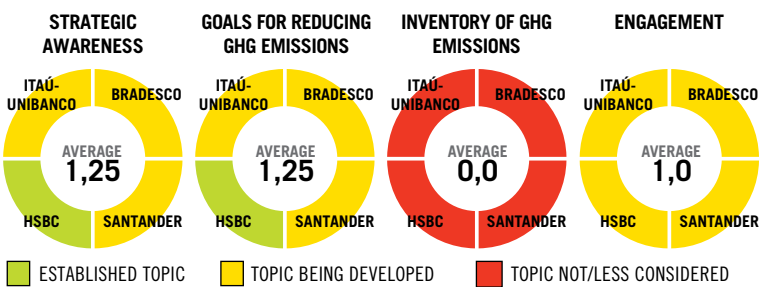
Some considerations on financed emissions:

- In general, all institutions have chosen the areas in charge of handling the climate change issue throughout the organizations. HSBC is already developing corporate business goals included in different areas such as risk sector, investment and insurance policies.
- Products with social and environmental additionalities still carry little weight in relation to the overall contracted portfolio.
- In general, no institution has a financed emissions inventory, however HSBC has already started to demand from customers emission reduction targets in Project Finance projects.
- All the institutions comply with Bank Track, and have an annual balance sheet and stakeholder engagement, however they should develop more openness of information and accountability.

#### QUESTIONNAIRE 1: INSTITUTIONAL VISION AND OPERATIONAL EMISSIONS



#### QUESTIONNAIRE 2: CLIENT EMISSIONS AND DIRECTION OF PORTFOLIO



## APPENDIX 2

### QUESTIONNAIRE 1: INSTITUTIONAL VISION AND OPERATIONAL EMISSIONS

#### 1.1 STRATEGICAL AWARENESS ON CLIMATE CHANGE (CC)

**OBJECTIVE:** To evaluate how the topic impacts not only the bank's strategic planning but also its daily performance.

- A)** Does the bank acknowledge its position as driver to a low carbon economy? Which are the main opportunities identified so it can b) Is there a policy that explicitly deals with climate change?
- C)** Is there a formal attribution extended to a professional in the company for the implementation of direct and/or indirect operational emissions reduction? In this case, where does the most senior level of responsibility lie?
- D)** Is there a possibility of change in the legal benchmark under which the bank operates – in terms of climate change – that could affect its performance? (i.e., changes in the way to build new agencies, energy consumption, etc.)
- E)** Has any of the bank's agencies been affected by climate change, like floods, droughts or abnormal wind? How?

- F)** Does the bank use any institutions as reference in the development of environmental practices? (Multilateral, state-owned and/or private international banks, state-owned and/ or private national banks, etc.)

#### 1.2 CARBON REDUCTION TARGETS

**OBJECTIVE:** to evaluate commitment with GHG emission reduction targets in its operations and commitment in initiatives for the mitigation of its climate impacts.

- A)** Are there objectives established on how the bank should deal with climate change?
- B)** Does it carry out any initiatives for mitigation or offsets of GHG emissions?
- C)** Does it develop or aim to develop activities related to carbon credits? Has the institution received carbon credits for any of its activities?

### 1.3 IMPLEMENTATION AND PUBLICATION OF INVENTORY

**OBJECTIVE:** To check whether it carries out operational emissions inventories and which stage this process is at.

- A) If not, which would be the main challenges to carry out a carbon inventory of the bank's operational emissions?**
- B) Does the bank follow or is familiar with any carbon inventory methodology? (i.e., GHG Protocol.)**
- C) In case the bank makes an inventory, which would be the evaluation areas and prioritized regions?**
- D) Were reduction goals established and options for funding operations associated with the accomplishment of these goals? Would it be possible to provide examples?**

### 1.4 IMPLEMENTATION OF PRACTICES

**OBJECTIVE:** to assess the origin of strategic/practical actions (internal or external demands), as well as knowing whether opportunities to contribute with initiatives for a low carbon economy in its operations were identified, and how actions/initiatives/development of products were implemented.

- A) Was an opportunity to commit the internal public and/or suppliers with the issue of climate change? What has already been done?**
- B) Did the bank receive any formal demands from government or society to address climate change in its procedures and physical units?**
- C) Which department/departments is/ are involved in these initiatives? Was a schedule established for the presentation of strategies/actions? Are there any concrete measurable results of these initiatives? Would it be possible to give examples?**

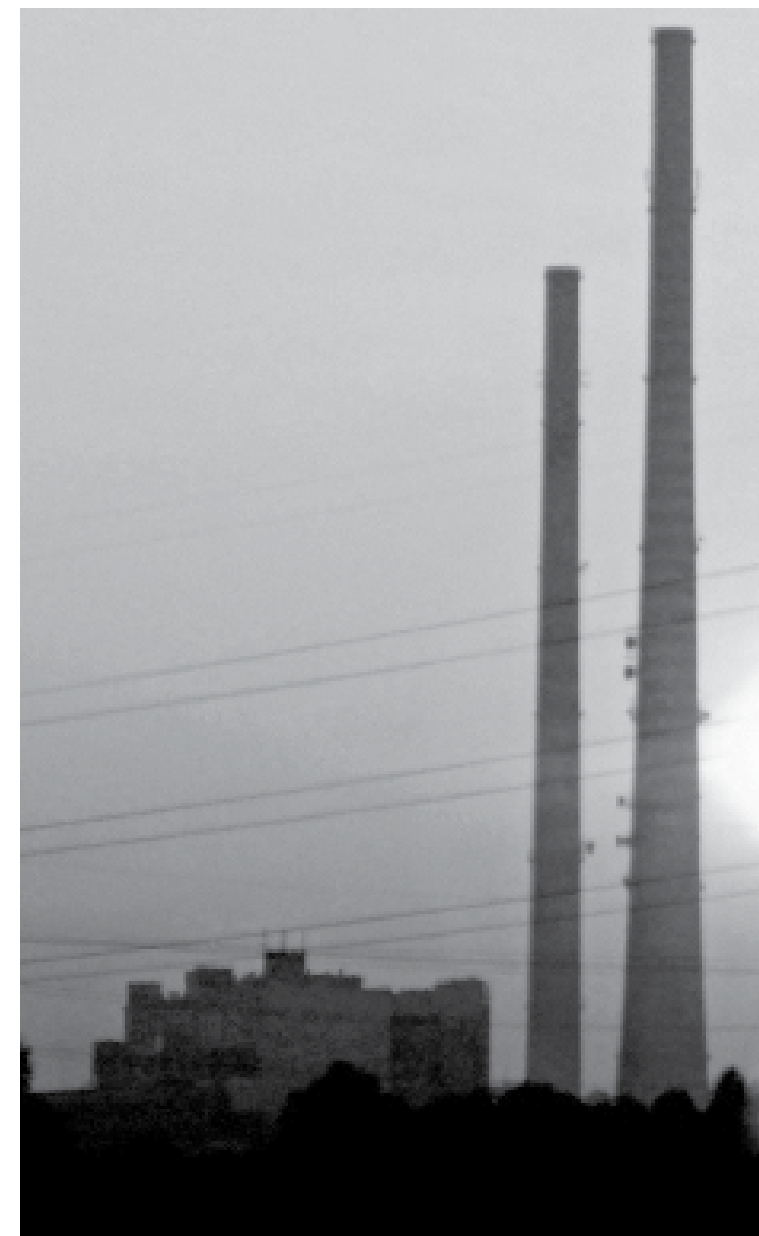
## APPENDIX 3

### QUESTIONNAIRE 2: CUSTOMERS EMISSIONS AND PORTFOLIO ORIENTATION

#### 2.1 STRATEGIC AWARENESS ON CLIMATE CHANGE

**OBJECTIVE:** details of the design of operational initiatives on climate change, as well as products and services offered by the bank with this thematic focus.

- A) Is there formal assignment of any professionals in the enterprise with regards to implementing low carbon economy in the bank's products and services? In which departments? Where does the most senior level of responsibility lie?**
- B) Have any possibilities of change in the legal benchmark that could affect the bank's products and services been identified?**
- C) Which are the main benchmarks/ references (national and international) used by the bank in the development of products and services? (Multilateral, stateowned and/or private international banks, state-owned and/or private banks, etc.)**



## 2.2 CARBON REDUCTION TARGETS

**OBJECTIVE:** to map existing products and services or some that are being developed that could contribute directly or indirectly with a low carbon economy.

- A) In which of the bank's businesses areas are strategies/actions/initiatives considered in terms of climate change?**
- How are they implemented?
  - Do any of the bank's products or services deal specifically with climate change in its environmental policy? Would it be possible to give examples?
- B) Are there products and services available to the public?**
- Would it be possible to supply a listing and the departments responsible for their management and delivery?
  - Which sectors and regions are these products focused on?
  - Which is the amount available for each product line? Are there any statistics on its use? Would it be possible to provide a listing?
  - Which are the differentials?
  - Which are the main challenges faced by your institution both in the development process as in the delivery of these products?

## 2.3 IMPLEMENTATION AND PUBLICATION OF INVENTORY

**OBJECTIVE:** to know the composition of the bank's investment portfolio and legal entity credit.

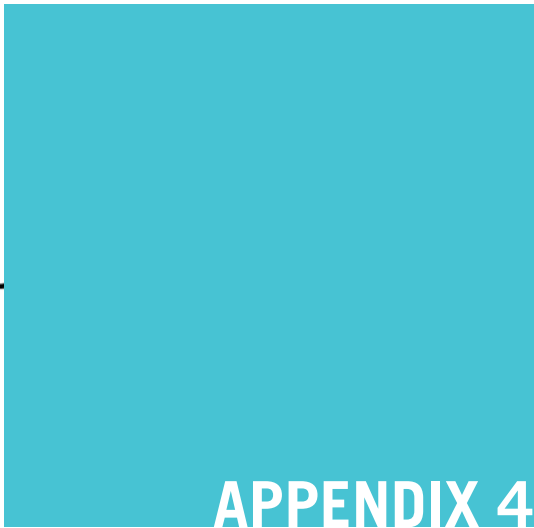
- A) What is the participation of farming, energy (with a breakdown for oil and gas ), industrial (with a breakdown for infrastructure), forestry and other sectors? Is there another relevant sector to be considered? Was any global information about the bank's assets requested? In case this information has already been supplied, please disregard this question.**
- B) Did sector participation vary significantly in relation to the previous period?**



## 2.4 PRACTICE IMPLEMENTATION

**OBJECTIVE:** to identify the way the bank is committed with customers and other society actors before relevant aspects for a low carbon economy.

- A) Did the bank receive any formal demand from the government or society to address climate change in its products and services?**
- B) To whom and how does the bank report the results of products and services that use public resources with environmental criteria?**
- C) How have those who are responsible for the management of the topic within the bank been performing in terms of increasing interest for low carbon initiatives in the internal environment (senior management) as well as in the target market (customers)?**
- Which are the internal actions?
  - Which are the performance priorities (sectors, regions, activities)?
- D) Does the bank have a specific performance policy for the Amazon region? How was it constructed? Are there financial limitations for the performance in the region or only criteria? What is the volume of resources allocated to this region (% total portfolio)? Is there a historical series of resources allocation for this region?**



REQUEST FOR INFORMATION ON PRODUCTS AND PORTFOLIO

1. PRODUCTS/CREDIT LINES WITH CRITERIA TO PROMOTE A LOW CARBON ECONOMY

1.1 DATA:

PRODUCT/ LINE OF CREDIT	DEPARTMENTS RESPONSIBLE FOR DELIVERY	AMOUNT AVAILABLE (2009)	CONTRACTED AMOUNT (2009)	SECTORS AND REGIONS IN FOCUS	WHY WOULD A CUSTOMER BE INTERESTED IN THIS PRODUCT? DIFFERENTIALS	KEY CHALLENGES OF THE PRODUCT/LINE OF CREDIT

1.2 TOOLS AND PRODUCT CHARACTERISTICS::

PRODUCT/ LINE OF CREDIT	IS IT PART OF A STRATEGIC INDUCTION PLAN OR INITIATIVE? EXPLAIN?	ARE DIFFERENTIATED CRITERIA APPLIED IN THE ASSESSMENT OF CREDIT? EXPLAIN?	ARE THERE DIFFERENT REQUIREMENTS FOR ACTIVITY ADAPTATION? EXPLAIN?	IS ANY MONITORING/ IMPACT EVALUATION CONDUCTED? HOW?

1.3 FURTHER INFORMATION ON EACH PRODUCT / LINE OF CREDIT (EX.THE PROPOSED PRODUCT, COMMUNICATION ACTIONS ETC.)

2. LOAN PORTFOLIO – COMPANY

SECTORS	AMOUNT CONTRACTED IN 2009 (BRL)
Agriculture and livestock	
Forestry	
Oil and gas	
Renewable energy	
Other	
Total	

REGIONS	AMOUNT IN 2009 (BRL)
North	
Northeast	
Midwest	
Southeast	
South	
Total	



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