

**Module: Introduction****Page: Introduction****0.1****Introduction**

Please give a general description and introduction to your organization.

Garanti Bank is the second largest private bank in Turkey with US\$78.1 billion in assets as of 31 December, 2009. Garanti provides high quality retail, small and medium enterprise, commercial, corporate and private banking services to over 9 million customers. As of March 2010, it operates 786 branches in Turkey, five foreign branches (Luxembourg, Malta and Turkish Republic of Northern Cyprus), four international representative offices (Moscow, London, Düsseldorf and Shanghai), around 3,000 ATMs, a call center and an internet bank utilizing state-of-the-art technology and focusing on customer satisfaction.

In 2009, Garanti sustained its leading position in profitability among private banks despite setting aside TL330 million in line with the Bank's prudent stance towards tough credit conditions. The company also preserved its top position in cash lending and continued to deliver the lowest NPL ratio of 4.3% among its Turkish peers. Garanti's customer-centric business strategy is based on the following:

- High product and service quality with continuous innovation in banking services
- Unmatched convenience and expertise with the best execution
- Process excellence throughout the organization
- Dedication to customer satisfaction

Garanti is committed to addressing the challenge of climate change both in its own operations and in its larger sphere of influence. Becoming part of the solution to this critical challenge is an obligation as well as an opportunity to continually evolve the way we serve our customers.

**0.2****Reporting Year**

Please state the start and end date of the year for which you are reporting data.

Enter Periods that will be disclosed

Thu 01 Jan 2009 - Thu 31 Dec 2009

**0.3****Are you participating in the Walmart Sustainability Assessment?**

No

**0.4****Modules**

As part of the Investor CDP information request, electric utilities, companies with electric utility activities or assets, companies in the automobile or auto component manufacture sectors and companies in the oil and gas industry should complete supplementary questions in addition to the main questionnaire.

If you are in these sectors, the corresponding sector modules will be marked as default options to your information request. If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below. If you wish to view the questions first, please see [www.cdproject.net/cdp-questionnaire](http://www.cdproject.net/cdp-questionnaire).

**0.5****Country list configuration**

Please select the countries for which you will be supplying data. This selection will be carried forward to assist you in completing your response.

Select country

Turkey

**0.6 Please select if you wish to complete a shorter information request.**

**Further Information****Module: Governance****Page: Governance****1.1 Where is the highest level of responsibility for climate change within your company?**

Board committee or other executive body

## 1.1a Please specify who is responsible.

Other: CEO

## 1.2 What is the mechanism by which the board committee or other executive body reviews the company's progress and status regarding climate change?

Garanti's senior management (which includes all senior officers and the President and CEO, who is a member of the board of directors) has ultimate responsibility for the bank's approach to climate change. Senior management will meet to hear progress on and provide input to climate change efforts four times a year. Each meeting will include an update of performance against to-be-determined emissions reduction goals and likely reduction in total footprint.

Senior management plans to establish a Sustainability Team, composed of senior vice presidents from relevant business units, by the end of 2010. Creation of this team is part of a larger effort to integrate environmental concerns and opportunities into all operations and products and to ensure that they are consistent with internal policies and applicable regulations.

We plan for this to-be-created Sustainability Team to lead on-going efforts related to climate change. We expect this team to include investor relations, strategy, communications, financial planning, project finance, construction, internal control/risk, key lines of business (such as retail and commercial banking), purchasing, human resources, and technology. Specifically, we expect this sustainability team to have responsibility for developing the company's overall strategy on climate change, recommending emissions reductions targets to the management team, and identifying and launching specific projects. We plan for the team to also be responsible for following developments related to climate change issues at the internal and national levels, paying particular attention to any emerging commitments by Turkey under the new Kyoto regime. Furthermore, we expect that individual climate-change related projects are likely to be owned or co-owned by lines of business that will report progress back to the Sustainability Team. Key project areas (and likely business unit owners) are expected to include the following:

- Operational efficiency/Direct Impacts (Financial Planning, Construction, Retail Banking)
- Indirect impacts (Investor Relations, Financial Planning, Project Finance)
- Disclosure reporting and other communications (Investor Relations, Communications)
- Energy-efficiency and renewable energy-related banking products and services (Strategy, Retail Banking, Commercial Banking, Project Finance)

The Investor Relations team currently handles day-to-day program coordination.

## 1.4 Do you provide incentives for the management of climate change issues, including the attainment of greenhouse gas (GHG) targets?

No

### Further Information

Garanti believes that use of incentives will be essential to successful execution of our sustainability strategy (currently under development). So, while we currently do not have specific incentives in place for key employees, we fully expect to in the near future.

## Module: Risks and Opportunities

### Page: Risks & Opportunities Identification Process

## 2.1 Describe your company's process for identifying significant risks and/or opportunities from climate change and assessing the degree to which they could affect your business, including the financial implications.

Assessment of climate change-related risks and opportunities relies on the integration of new information and processes into a diverse array of existing and emerging efforts. Risk assessment at Garanti covers capital markets, trading, finances (such as interest rate risk and liquidity risk), credit portfolios, operations, business continuity (which includes natural disasters) and regulations. Several units that report directly to the board of directors have been created to manage these risks. Of particular relevance to Climate Change, Garanti recently established a Business Continuity and Disaster Recovery Unit that addresses all of the following in case of natural disaster or significant hazard: ensuring continuity in customer service, fulfilling legal obligations, minimizing financial losses, providing employee security and safeguarding of information assets. This unit defines specific business risks, assesses their likelihood and potential impacts and develops strategies for minimizing the likelihood of impact and for restoration of optimal operational performance. Assessment of new opportunities belongs to the relevant individual departments and Garanti's Strategic Planning department, which reports directly to the CEO.

The to-be-created Sustainability Team will have primary responsibility for ensuring that relevant efforts to identify and respond to new risks and opportunities are appropriately informed on climate change-related topics. We plan for this to occur in four primary ways:

- The Sustainability Team's quarterly meeting with senior executives will include a review of key risks and opportunities related to climate change.
- Direct, regular interaction with the Business Continuity and Disaster Recovery Unit, which will be represented on the Sustainability Team.
- Representation of a wide variety of relevant business units on the sustainability team.
- Targeting of select departments or individuals by the Sustainability Team to raise awareness of the highest priority risks or opportunities. This approach, in particular, can ensure that any perceived gaps in Garanti's climate change response are filled.

Ownership for estimating the financial implications of any climate change-related risk or opportunity will vary depending upon the nature of the risk or opportunity and the extent to which it has already been accepted as a priority by relevant departments. For those risks and opportunities newly emerging for the organization, the Sustainability Team will play the lead role in initial estimation of financial implications, which will serve as a key tactic for enrolling relevant divisions. For those risks and opportunities already determined to be a priority for the organization, and for which program or effort development may have already begun, we expect one or more relevant departments, supported by the Sustainability Team, will take ownership for estimating financial implications. Such detail will be essential for project planning, especially for making any investment decisions.

Until the Sustainability Team is established later this year, we expect the Investor Relations team, supported by a number of relevant departments, to have primary responsibility for all major efforts related to climate change, including the identification of risks and opportunities.

## Further Information

### Page: Regulatory Risks

#### 3.1 Do current and/or anticipated regulatory requirements related to climate change present significant risks to your company?

Yes

#### Do you want to answer using:

The table below

#### 3.2A

#### What are the current and/or anticipated significant regulatory risks related to climate change and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
International agreements	Turkey	0 -- 5	In 2009, Turkey signed the Kyoto Protocol, which should lead to new, specific regulations that could directly raise costs for operations and indirectly create risk by raising costs and threatening profitability for customers in energy-intensive industries. See the full explanation in the following question.
Other: EU negotiations	Turkey	0 -- 5	Turkey is negotiating for accession to the European Union. Similar to the signing of Kyoto, this process, if it continues, will require Turkey to adopt more stringent regulations in line with the EU. As with Kyoto, it could lead to new regulations that raise costs and indirectly pose risks via customers in energy-intensive sectors.
Cap and trade schemes	Turkey	0 -- 5	New legislation in Turkey resulting from Kyoto or the EU accession process are likely to include specific emissions targets for the most energy intensive sectors and may include mechanisms for trading emissions reductions.
Fuel/energy taxes and regulations	Turkey	Current	In 2007, Turkey passed the "Energy Efficiency Law" targeting a number of sectors. This led to passage of the "Building Energy Performance Regulation" in 2009, stipulating a number of specific activities likely to require new investments. It is expected, however, these investments will pay for themselves within a few years.
Indirect exposure through suppliers and clients	Turkey	0 -- 5	As a provider of financial services to numerous industrial sectors, all of the above regulatory risks could pose indirect risk to Garanti by threatening the viability of loan recipients.

#### 3.3

#### Describe the ways in which the identified risks affect or could affect your business and your value chain.

##### INTERNATIONAL AGREEMENTS

In 2009, Turkey signed the Kyoto Protocol signaling its intention to adopt emission targets after 2012. A post-Kyoto deal will require Turkey to adopt a strategy to lower greenhouse gas emissions. This should lead to new legislation aimed at energy-intensive sectors. In addition, Turkey is negotiating with the EU for accession. If this process progresses, Turkey will have to negotiate its own emissions targets with the EU.

Such new regulation creates risk for Garanti's total profitability, both directly and indirectly (through Garanti's customers and project finance activities). These risks are described in more detail below by the type of legislation anticipated.

##### CAP AND TRADE LAW

New legislation in Turkey resulting from Kyoto or the EU accession process are likely to include specific emissions targets for the most energy intensive sectors and may include mechanisms for trading emissions reduction.

Regulation targeting electricity production in particular could directly impact Garanti's operations by raising costs. Depending on the exact level of commitment, electricity costs may rise by 2-3%. Garanti owns and operates a large number of properties,

predominantly bank branches, requiring energy and fuel sources. These requirements make up a large part of Garanti's total operational expenses.

Emissions targets for energy-intensive sectors also present indirect exposure through Garanti's customers and its project finance activities (see "Indirect exposure through suppliers and clients" below).

As part of an overall plan to reduce emissions from key sectors, new legislation could also allow Turkish companies to participate in the European Emission Trading System. Garanti sees such a development as an opportunity (see question 6.2a).

#### FUEL/ENERGY TAXES AND REGULATIONS

In 2007, Turkey passed the "Energy Efficiency Law," requiring new measures for the generation, transmission, distribution and consumption of energy. Of particular relevance to Garanti, the law led to passage of the 2009 Building Energy Performance regulation. This regulation targets existing and new buildings and requires a number of applicable measures, including:

- For buildings with a surface area of at least 20,000 square meters or annual energy consumption in excess of 500 TPE (tons of petroleum equivalent), identification of an energy efficiency manager who will submit annual performance reports to the Directorate General of Electricity Works.
- For industrial facilities with an annual energy consumption in excess of 50,000 TPE, the identification of an energy efficiency unit responsible for the submission of annual energy efficiency performance reports. This can be viewed as a risk (as it imposes costs for personnel and necessary systems and equipment) and an opportunity (due to the potential for discovery of cost savings through reduced energy consumption).
- For new and existing buildings of at least 1,000 square meters: use of central heating systems; achievement of minimum insulation standards; and use of construction material compliant with energy efficiency standards issued by the Ministry of Public Works and Construction.

These measures will apply to some of Garanti's existing properties as well as any new facilities, such as the currently planned data center. While these measures are expected to raise costs initially, they will likely also lead to long-term cost savings.

#### INDIRECT EXPOSURE THROUGH SUPPLIERS AND CLIENTS

Potential cap and trade law also presents Garanti with indirect risk through lending recipients. Likely emissions targets for energy-intensive sectors could impose significant costs on some of Garanti's largest customers, negatively impacting profitability. Potential target industries where Garanti is active include steel manufacture, energy production (including coal), paper industries, chemicals, cement, transportation and other infrastructure sectors. Garanti will continue to assess the extent to which any new regulation could threaten the payback potential of these sectors. Garanti also recognizes that such regulations could spur new innovation, driving greater operational efficiency and the creation of new products and services within target industries.

### 3.4 Are there financial implications associated with the identified risks?

Yes

### 3.5 Please describe them.

The above risks could result in any of the following specific financial implications:

- Increased energy costs: Depending on the specific actions Turkey takes under its commitment to Kyoto or to otherwise reduce greenhouse gas emissions, electricity costs may rise by 2-3%, above and beyond any increase associated with supply and demand.
- Increased construction and building operations costs: New mandates for building characteristics and operational procedures should require initial investment up to a few percentage points of total building construction or operational costs. Due to the ability of these interventions to lead to long-term cost savings with rapid payback, however, Garanti also views these requirements as an opportunity.
- Reduced loan performance: New regulations could meaningfully raise costs for Garanti client's in energy-intensive sectors. While it is probably unlikely that these threats would lead to failure to meet debt obligations, such a scenario could impose meaningful financial implications. Estimating likelihood and size of risk is both difficult and strategic in nature.

### 3.6 Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.

Garanti has already developed and is in the process of further developing strategies and programs to manage risks associated with climate change related regulations. These include the following:

- Legal and Regulatory tracking: The to-be-created Sustainability Team will lead cross-functional efforts to stay informed of new legislation and regulations related to climate change and energy. This will likely include the regular review of relevant trade press, engagement of our legal department, stakeholder outreach and engagement of external experts.
- Identifying opportunities to reduce energy consumption across all facilities: This will soon include formal approval of a company-wide greenhouse gas emissions goal and, likely, individual goals for different facility types. Opportunities we are currently investigating include rethinking branch opening hours to reduce idle time energy consumption; and optimizing location, size and hardware at new and existing branches to improve energy and resource utilization.
- Efficient new buildings: To further reduce the impact of increasing energy costs, Garanti intends to use best practices and technologies at our new facilities. For example, we will soon begin construction on a new data center in Istanbul that will be certified under the Leadership in Energy and Environmental Design (LEED) Building Program. Data centers are the most energy-

intensive of our facilities. In the future, we plan to continue to look for opportunities to build to LEED or similar standards. The cost of building to green standards in Turkey, while highly variable, can be significantly higher than traditional building. However, green buildings typically return any associated premium within a few years. We expect this data center to use roughly half of the energy required by our current data centers.

- Formal inclusion of climate change and other sustainability topics into lending practices: We plan to expand our current risk screens to include the following: ability of regulations and the physical impacts of climate change to decrease project viability; likelihood that association with the project could cause reputational harm; and consideration of climate change mitigation strategies in project planning. To guide this, Garanti is in the process of reviewing a number of established protocols that guide responsible banking activities. We expect to commit to one of these programs in the coming months.

## Further Information

### Page: Physical Risks

#### 4.1 Do current and/or anticipated physical impacts of climate change present significant risks to your company?

Yes

#### Do you want to answer using:

The table below

#### 4.2A

#### What are the current and/or anticipated significant physical risks, and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
Changes in precipitation patterns	Turkey	Uncertain	Reduced rainfall could lead to further instances of drought, already common in many areas of Turkey, leading to water shortages that could affect communities and the agricultural sector. Risk to the financial viability of these customer groups poses risk to Garanti. There is meaningful uncertainty as to the timing of weather changes related to global warming, but they are believed to have already begun and are expected to intensify over time.
Changes in frequency of extreme weather events	Turkey	Uncertain	Flooding and severe heat could directly affect operations and Garanti's customers. There is meaningful uncertainty as to the timing of weather changes related to global warming, but they are believed to have already begun and are expected to intensify over time.
Induced changes in supply chain and/or customers	Turkey	Uncertain	Alterations in weather patterns and extreme weather events, especially flooding, could eventually threaten the economic viability of communities where Garanti operates. There is meaningful uncertainty as to the timing of weather changes related to global warming, but they are believed to have already begun and are expected to intensify over time.

#### 4.3

#### Describe the ways in which the identified risks affect or could affect your business and your value chain.

##### CHANGES IN PRECIPITATION PATTERNS

Many regions in Turkey are already prone to drought. Any increase in these events could further exacerbate challenges related to water scarcity, for communities and key sectors, such as agriculture. This could affect Garanti indirectly by threatening the livelihoods of current and prospective customers, potentially reducing total transaction volume and interest. It could also affect Garanti in the event of civil unrest related to water scarcity. With its broad reach of retail banks, in particular, Garanti is a part of communities throughout Turkey. Unrest could threaten the operation of individual branches and pose a safety hazard for employees and customers.

##### CHANGES IN FREQUENCY OF EXTREME WEATHER EVENTS

Extreme weather events resulting from climate change likely to have the biggest impact on Garanti's operations include flooding (both from localized storms and rising sea-levels) and severe heat. Both could indirectly impact Garanti through the economic viability of its customers. Flooding, in particular, can pose a threat to operation of individual branches. Severe storm events could also threaten the ability of employees to get to and from key facilities, such as headquarters and Garanti's data management center.

##### INDUCED CHANGES IN SUPPLY CHAIN AND/OR CUSTOMERS

As suggested above, extreme weather events associated with climate change could create significant damage for a number of key industries, including agriculture, tourism and real estate. Flooding also threatens businesses and communities located in low-lying areas in Turkey. As a diversified banking company with a wide-spread geographic footprint, Garanti shares those risks that threaten Turkish livelihoods.

#### 4.4 Are there financial implications associated with the identified risks?

Yes

#### 4.5 Please describe them.

- Loss of revenue due to reductions in commerce and customer livelihoods: Damage to local and regional economies associated with the physical impacts of climate change could significantly impact the financial performance of bank operations in those areas. While we have not yet attempted to quantify the size of such risks, we consider this an important issue to manage and plan for, led by the to-be-created Sustainability Team.
- Loss of revenue due to stalled operations or critical damage: Inability to provide timely service, such as completion of banking transactions, could result in both immediate loss of revenue and damage to company reputation, which could lead to longer-term loss of revenues. Due to the significant uncertainty involved, Garanti has not attempted to quantify this risk but considers it significant and is taking numerous steps to decrease the likelihood and severity of occurrence.
- Increased costs associated with temperature extremes: While there is meaningful uncertainty in estimating likely changes in heating and cooling costs, some scenarios predict dramatic changes in certain locales, which could raise total energy prices as much as 5%.
- Increased costs associated with damages to properties: The physical impacts of climate change, especially flooding, has the potential to significantly damage individual properties. Due to difficulty of estimating this highly variable and site-dependent risk, we have not yet attempted to quantify potential harm.

#### 4.6 Describe any actions the company has taken or plans to take to manage or adapt to the risks that have been identified, including the cost of those actions.

- Ensuring continuity of operations: To minimize potential disruption, Garanti offers a variety of customer service options, including on-line banking and banking with mobile devices. In addition, Garanti has established back-up plans for critical operations, such as data security. For example, Garanti's data processing center has been designed with full backup systems to avoid technical and mechanical hardware problems. In addition, Garanti has established a secondary back-up center for vital operations in the case of physical disaster and sabotage.
- Reducing heating and cooling loads: As part of a wider campaign to reduce operational energy expenses, Garanti is currently investigating opportunities to reduce heating and cooling needs at new and existing properties. For example, for a new data center expected to be completed in 2012, Garanti has designed a facility to LEED specifications. Data centers are Garanti's largest user of energy per square meter of property.
- Minimizing the financial implications of physical damage: All bank offices and branches carry standard insurance policies that typically cover weather-related incidents/disaster, including flooding.

#### Further Information

[Page: Other risks](#)

#### 5.1 Does climate change present other significant risks - current and/or anticipated - for your company?

Yes

#### Do you want to answer using:

The table below

#### 5.2A What are the current and/or anticipated other significant risks, and their associated countries/regions and timescales?

Risk	Region/Country	Timescale in Years	Comment
Financial risks	Turkey	Current	Failure to meet growing investor expectations for taking action on climate change could potentially lead to financial and reputational harm.
Reputational risks	Turkey	Current	Failure to meet expectations for action on climate change across a wide collection of stakeholders (or association with a negative publicity event related to climate change) could threaten company reputation and customer perceptions.
Market risks	Turkey	0 -- 5	Failure to position as a pro-active leader on climate change and energy topics could reduce the opportunity to capitalize on future market opportunities (discussed in detail in following sections of this response).

#### 5.3 Describe the ways in which the identified risks affect or could affect your business and your value chain.

FINANCIAL RISKS

Investors, in particular, have increasingly demanded leadership from corporations regarding climate change. Failure to meet these rising expectations could threaten share value and result in a number of financial implications (see below).

## REPUTATIONAL RISKS

Stakeholders increasingly expect companies, especially the banking sector, to proactively address climate change issues. Garanti believe these expectations demand that a company have a comprehensive climate change program. While such programs necessarily focus on emissions from owned and operated sources, they should also include key value chain issues. Banks, in particular, face risks associated with loan recipients, who may be large emitters of greenhouse gases or potentially associated with flashpoint issues that could generate significant negative publicity, such as an oil spill. Failure to meet these expectations could damage reputation, threaten customer loyalty and harm the company's ability to win new customers. In addition, it could also reduce demand by investors, of particular importance for a publicly-traded, financial services company. Over the last several years, investors in particular have organized to pressure companies to demonstrate leadership on climate change issues.

## MARKET RISKS

The physical impacts of climate change and the regulatory, business-led or customer efforts to prevent or minimize these impacts are likely to bring significant changes to the economy and, by extension, the marketplace for banking and financial services. Failure to adequately prepare for these changes could reduce a company's ability to maintain existing market share and capitalize on new product and service opportunities. First, climate change and its preventive measures could meaningfully impact the viability of the existing customer base. For example, individual regions (e.g., those prone to flooding or that experience climate change-led severe weather) and entire sectors of the economy (those unable to transition to a low-carbon business model or dependent on stable weather patterns, such as agriculture) could suffer significant loss of income, translating to losses for the banks that support them. Second, transition to a low-carbon economy will demand new products and services from the financial and banking sectors. Those companies that fail to meet these challenges will lose new business opportunities.

### 5.4 Are there financial implications associated with the identified risks?

Yes

### 5.5 Please describe them.

The above described risks pose significant financial implications for Garanti. While the nature of these risks makes it extremely difficult to quantify them, we believe it is critical that they be properly managed.

- Loss of company value due to failure to meet growing investor expectations: Loss of share price value/market capitalization can harm reputation, limit M&A opportunities and threaten credit rating. To eliminate any such risk associated with climate change, Garanti endeavors to always exceed investor expectations. We see this as vital for attracting "green" investors who already have screens regarding the environment and to preserve interest of investors who are likely to adopt such screens in the near future. We see large, institutional investors as those most-likely to adopt such screens. Such investors represent a significant portion of Garanti's existing investor base.
- Loss of sales from reputational risk: Failure to adequately address concerns related to climate change, a sensitive topic for many stakeholders, can create a significant, lasting impact on a company's public perception. This can easily translate to loss of existing customers and difficulty obtaining new customers. As mentioned, we have not attempted to quantify this risk but consider it critical to manage. Along with the other risks and opportunities presented by climate change, reputational risk is a key motivator behind Garanti's emerging climate change and sustainability strategy.
- Loss of sales from value chain impacts: New regulations, growing stakeholder concern and the physical impacts of climate change all have the potential to threaten the viability of key economic sectors and even entire communities. Such economic distress can directly impact our business by lowering banking transactions and the volume of available assets.

### 5.6 Describe any actions the company has taken or plans to take to manage or adapt to the other risks that have been identified, including the costs of those actions.

- Meeting investor and other stakeholder expectations through program development: Garanti is in the process of developing a comprehensive program to address climate change risks and create business value from its opportunities. We intend to always exceed the expectations of investors and other key stakeholder groups, minimizing or eliminating the likelihood of reputational harm to our business.
- Communication to key stakeholders about program activities: Communication of our climate change activities has and will continue to focus on several audiences, including investors, customers and the general public. Investors, in particular, have made clear their desire to see Garanti take a leadership role on climate change. Garanti has already described its environmental efforts in its 2009 Annual Report and through a special publication, "101 Steps," created to provide employees with a list of things they can do to address the climate change. In the future, we expect to use all of the following forums for communication of our climate-change related activities:
  - o Annual reports
  - o Quarterly "Stockwatch" publications
  - o A sustainability report, expected to be launched with the 2011 Annual Report
  - o Our company website
  - o Internal education memoranda to employees
  - o Investor and roadshow presentations
  - o Regular emails to investors
- Incorporation of climate change concerns into lending practices: Garanti is in the process of reviewing a number of established protocols that guide responsible banking activities. We expect to commit to one of these programs in the coming months. However, much of the risk associated with climate change (i.e., physical impacts) from lending has little to do with the level of ethical

responsibility exhibited by loan recipients. Therefore, it is also our intention to increasingly consider such risks at every level of banking practice. Many of our customers most at risk from the physical impacts of climate change are small agriculture operations that we interact with through our retail branches.

## Further Information

### Page: Regulatory Opportunities

#### 6.1 Do current and/or anticipated regulatory requirements related to climate change present significant opportunities for your company?

Yes

#### Do you want to answer using:

The table below

#### 6.2A What are the current and/or anticipated significant regulatory opportunities and their associated countries/regions and timescales?

Opportunities	Region/Country	Timescale in Years	Comment
International agreements	Turkey	0 -- 5	By signing the Kyoto Protocol (and, potentially, its efforts related to the EU accession process), Turkey is expected to launch a number of regulatory efforts (described below) that could create new market opportunities.
Cap and trade schemes	Turkey	0 -- 5	Any new legislation leading to participation in or creation of a cap and trade scheme would grow the market for carbon credits and investment into renewable energy and energy-efficiency opportunities.
Fuel/energy taxes and regulations	Turkey	Current	Turkey's renewable energy law (passed in 2005 and set to be updated with more attractive incentives in 2010) has grown the market for investment into renewable energy.
General environmental regulations, including planning	Turkey	Current	Current and future regulations are expected to spur growth in the use of renewable energy and energy-efficient technologies in Turkey, creating new opportunities for the financing of these technologies.

#### 6.3 Describe the ways in which the identified opportunities affect or could affect your business and your value chain.

##### INTERNATIONAL AGREEMENTS

In 2009, Turkey signed the Kyoto Protocol signaling its intention to adopt emission targets after 2012. A post-Kyoto deal will require Turkey to adopt a strategy to lower greenhouse gas emissions. This should lead to new legislation aimed at energy-intensive sectors. In addition, Turkey is negotiating with the EU for accession. If this process progresses, Turkey will have to negotiate its own emissions ceilings and reduction targets with the EU.

These international agreements should lead to increased regulations, particularly for energy intensive sectors. Specific types of likely regulation, and the potential market opportunities they could spur, are described below.

##### CAP AND TRADE

As part of an overall plan to reduce emissions from key sectors, new legislation could also allow Turkish companies to participate in the European Emission Trading System. This could help rapidly grow the market for renewable energy and energy-efficient investments. Garanti intends to position as a leader in this emerging market across its broad base of customers. For specific detail on new products and services, see question 8.6.

##### FUEL/ENERGY TAXES AND REGULATIONS

In 2005, Turkey passed a "renewable energy law" that offers a guaranteed minimum price for electricity generated from renewable sources. This incentive has helped to launch a rapidly growing market for wind energy presenting significant opportunity for banks offering project finance. In 2009, Garanti invested US\$420 million in 6 installations with a combined generation capacity of 285 megawatts. This brings Garanti's total historical investment in wind energy to \$US800 million by the end of 2009.

Turkish authorities are now considering higher and differentiated feed-in-tariffs for different forms of renewable energy, including wind, geothermal, biomass and, potentially, solar. If passed, these incentives would further grow the market for project finance to support renewable energy projects.

##### GENERAL ENVIRONMENTAL REGULATIONS AND STANDARDS

As Turkey passes new legislation related to climate change, energy efficiency and renewable energy production, it could present significant new opportunities for the banking sector. For example, current and pending regulations are expected to greatly increase energy efficiency investments for new and existing buildings, requiring higher standards for insulation, a shift towards centralized heating and sophisticated energy management systems. This includes the 2009 Building Energy Performance Regulation described for question 3.3. These trends could present significant lending opportunities for banks, particularly for commercial or

**6.4 Are there financial implications associated with the identified opportunities?**

Yes

**6.5 Please describe them.**

- Cost reductions at owned and operated facilities from increased efficiency: Garanti expects new regulation focused on energy-efficiency to spur cost savings at our facilities. We are currently in the process of measuring likely savings and prioritizing key interventions. It is expected that cost savings from such interventions at existing properties could range from 5 to 20% of total energy expenses per property. We anticipate these interventions would achieve payback in roughly 2 years.
- Cost reductions and publicity from green buildings: Whenever appropriate, we plan to build green for new facilities. This is relevant more for our office buildings as opposed to our branches, which are typically leased. In Turkey, the cost of building green comes with a meaningful premium over traditional buildings (more than the 2-5% premium typically found in Western Europe or the US). However, we expect any additional investment for building green to achieve payback within several years and serve as a long-term source of cost savings.
- New product and service opportunities: Regulations will help drive much of the climate change and energy related product and service opportunities presented to Garanti. However, there are other factors at play that will drive such new markets, including growing stakeholder interest and technological advancement. For this reason, a more detailed account of product and service opportunities can be found in the responses to questions 8.1 to 8.6.

**6.6 Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

- Cost reductions at owned and operated facilities from increased efficiency: We are currently in the process of identifying and prioritizing key interventions, as well as analyzing any associated investment. Potential opportunities include rethinking branch opening hours to reduce idle time energy consumption; optimizing location, size and hardware at new and existing branches to improve energy and resource utilization; and use of the latest energy-efficient fixtures and appliances.
- Building to green standards: Garanti will soon begin construction of a new data center in Istanbul that will be certified under the Leadership in Energy and Environmental Design (LEED) Building Program. This represents an important opportunity, as data centers are the most energy-intensive of our facilities. In the future, we plan to continue to look for opportunities to build to LEED or similar standards and to pioneer new energy-efficient building technologies in Turkey. Building green in Turkey typically imposes a price premium greater than 5% of traditional building costs but such investments can achieve payback within a few years.
- New product and service opportunities: As stated in the previous answer, a more detailed account of product and service opportunities can be found in the questions 8.1 to 8.6.

**Further Information**

**Page: Physical Opportunities**

**7.1 Do current and/or anticipated physical impacts of climate change present significant opportunities for your company?**

Yes

**Do you want to answer using:**

The table below

**7.2A What are the current and/or anticipated significant physical opportunities and their associated countries/regions and timescales?**

Opportunities	Region/Country	Timescale in Years	Comment
Induced changes in human and cultural resources	Turkey	21 -- 50	Physical impacts on existing settlements could necessitate new infrastructure projects, creating finance opportunities. However, there is meaningful uncertainty on timing of this development.

**7.3 Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

- Induced changes in human and cultural resources: Many experts believe that climate change is likely to severely impact existing human settlement and commercial establishments over the next half-century and beyond, especially in low-lying coastal regions. While this is a significant threat (as described for question 4.3), the flip-side to this threat will be a growing need for new infrastructure projects to support the resettlement of existing populations and new commerce.

**7.4 Are there financial implications associated with the identified opportunities?**

Yes

**7.5 Please describe them.**

While there are likely to be significant financial implications associated with these opportunities, the potentially long time horizon for this development makes its significance difficult to determine. Such a development is further confounded by the economic havoc that widespread impacts on human settlements is likely to create, which could significantly hamper the ability to pay for new infrastructure, even if the need is dire.

**7.6 Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.**

Garanti has long been a key lender to infrastructure projects in Turkey and would expect to capitalize on any new market opportunities associated with the physical impacts of climate change. To do so, we would expect to leverage our existing experience with such projects and relevant relationships with financial and governmental institutions.

**Further Information**

[Page: Other Opportunities](#)

**8.1 Does climate change present other significant opportunities - current and/or anticipated - for your company?**

Yes

**Do you want to answer using:**

The table below

**8.2A What are the current and/or anticipated other significant opportunities and their associated countries/regions and timescales?**

Opportunities	Region/Country	Timescale in Years	Comment
Reputational opportunities and increased ability to attract and retain talent	Turkey	Current	By meeting and exceeding growing stakeholder expectations, we enhance our ability to compete in new and changing markets and become a more attractive place to work.
Financial opportunities	Turkey	Current	By meeting or exceeding investor expectations, we enhance value and protect our stock price.
New services and/or product market opportunities	Turkey	Current	Trends related to climate change are expected to enhance the market for new banking or financial products and services, including those related to energy efficiency, renewable energy and carbon credits.

**8.3 Describe the ways in which the identified opportunities affect or could affect your business and your value chain.**

- Reputational opportunities and increased ability to attract and retain talent: Taking responsibility for climate change will increasingly have meaning for all of our major stakeholder groups. In addition to being a new dimension for competition in our various markets, such leadership can also enrich the way we are perceived by current and future employees. We firmly believe that by becoming a proactive company on sustainability topics (especially climate change), we become a more desirable place to work. This can meaningfully impact our ability to retain and attract talent.
- Financial opportunities: By meeting and exceeding growing investor expectations related to climate change, we avoid associated stock price risk and even increase value for some stakeholders. Maximizing share value has numerous benefits, including preservation of our credit rating, optimal positioning for M&A activities, and general enhancement/protection of company reputation. In addition, we see numerous opportunities related to our financing activities that will stem from growing action to address climate change. As a bank, we consider these products and services, described below.
- New services and/or product market opportunities: Numerous trends related to climate change (new regulations, growing customer and stakeholder concern, new technology development and even the physical impacts of warming) are expected to enhance the market for new banking or financial products and services. These should include but not be limited to all of the following: finance opportunities for renewable energy projects (such as wind and, eventually, solar); finance opportunities for site-specific energy-efficiency technologies/improvements and small-scale renewable energy investments (such as solar panels); other opportunities to finance green tech products (such as hybrid vehicles); and opportunities to develop or finance projects that generate emissions credits that could be sold.

#### 8.4 Are there financial implications associated with the identified opportunities?

Yes

#### 8.5

##### Please describe them.

- Reduced cost/increased value associated with employee retention and ability to attract the best talent: As our comprehensive efforts to address climate change have just begun, it is too early for us to have anecdotal evidence to estimate the likely value of these benefits. Nevertheless, we imagine they will be significant. Further, we are encouraged by the numerous companies with several years of experience working with sustainability topics who site employee enthusiasm as a primary benefit of their activities.
- Potential for increased stock price and associated benefits: Due to the inherent difficulty involved, we have not attempted to size the extent to which climate change leadership could impact stock price. Nevertheless, we believe this opportunity is real and see it as a prime consideration in formulation of our climate change and sustainability strategy.
- Increased revenues from new products and services: Below, we have categorized likely market opportunities and attempted to characterize their expected growth. We have not yet attempted to fully quantify these opportunities due to the fact that only a small amount of expected regulation has currently been issued and the inherent difficulty in measuring emergent markets. As shown below, however, we do provide numbers for individual efforts as evidence that such opportunities are likely to be significant and an important part of our business.
  - Large-scale renewable energy and other project finance opportunities: To meet government targets and market interest, the market for renewable energy projects could grow by as much as 2-3 times over the next 3 years and more than 10 times by 2023 (based on government targets for renewable energy).
  - Finance of small-scale renewable energy installations: Government incentives to encourage solar energy use should, within the next five years, allow for cost-competitive use of solar panels at small facilities. With Turkey's abundance of sunlight and available rooftops, this could lead to wide-scale lending opportunities to cover technology costs.
  - Finance of energy-efficiency projects: New and pending regulations should result in a large increase in new and retrofit energy-efficiency projects across market segments, including industrial, agricultural, commercial, and residential. In anticipation of such a movement, the Turkish construction sector is in the process of adopting a green building certification scheme based on BREEAM and aspects of LEED. Rapid growth in these projects is expected in the coming years. Such opportunities should also extend to industrial processes and transportation.
  - Other "green" services and products: We believe additional opportunities will develop to provide products and services that tap general or technology-specific customer interest in environmental performance. See below (8.6) for specific steps Garanti has already taken.

#### 8.6 Describe any actions the company has taken or plans to take to exploit the opportunities that have been identified, including the investment needed to take those actions.

- Finance for renewable energy projects: In 2009, Garanti provided US\$420 million in finance for six wind farms with a combined generation capacity of 285 megawatts. This brings Garanti's total historical financing value to \$US800 million in wind energy by the end of 2009. Garanti will continue to actively look for additional opportunities to finance wind projects and other renewable energy projects, such as solar, as government incentives and market dynamics allow them to become viable. Garanti's Project Finance Division is the primary vehicle for lending to large-scale energy projects. Senior leadership from Project Finance will stay actively involved in Garanti's Sustainability Team, ensuring a long-term commitment to renewable energy and other climate change-related infrastructure projects.
- Finance for energy-efficiency projects: We are in the process of rapidly expanding existing efforts to provide financing for energy and resource efficiency projects across a wide array of market segments. For example, with support from the European Bank for Reconstruction and Development and the Clean Technology Fund, Garanti will soon offer US\$ 60 million of favored lending for energy efficiency improvements in residences, small and medium enterprises, industry/manufacturing, commercial buildings and renewable energy projects. These packages follow our previously launched "Efficient Small and Medium Enterprise Package" focused on process efficiency, building efficiency and waste management. Typical investments include building insulation, double-glazing, rehabilitation of heating and power systems, and use of energy-efficient materials. Similarly, in 2009, Garanti launched a new, low-interest loan for hybrid cars.
- Development of a comprehensive climate change and sustainability strategy: To meet growing stakeholder interests (and tap the benefits described above related to both investors and employees), we are in the process of developing a company-wide plan and appropriate governance for proactively addressing climate change and other sustainability topics. We expect to provide more detail on this plan in next year's annual report and our next CDP response.

#### Further Information

[Module: Strategy](#)

[Page: Strategy](#)

Garanti's customer-centric business strategy is to provide:

- High product and service quality with continuous innovation in banking services
- Unmatched convenience and expertise with the best execution
- Process excellence throughout the organization
- Dedication to customer satisfaction

Our current and planned activities related to climate change will be fully-integrated into the business strategy as follows:

#### HIGH PRODUCT AND SERVICE QUALITY WITH CONTINUOUS INNOVATION IN BANKING SERVICES

We continuously seek new ways to provide value to our customers. Climate change topics present a great new lens for such innovation. Examples include:

- Lending for energy efficiency and renewable energy projects: Garanti will soon offer US\$60 million of favored lending for on-site renewable energy projects and for energy efficiency projects in residences, SMEs, industry, and commercial buildings. This follows our previously launched "Efficient Small and Medium Enterprise Package." Typical investments under this package include insulation, rehabilitation of heating/power systems, and use of efficient materials. ([www.cevrecikobi.com](http://www.cevrecikobi.com))
- Preferred project finance: To meet growing customer and stakeholder expectations, we plan to expand our current risk screens to include climate change topics. Garanti also intends to remain a leader in the finance of renewable energy projects, an area expected to grow rapidly. In 2009, Garanti invested US\$420 million in 6 installations with total generation capacity of 285 megawatts.
- Technology-specific lending: In 2009, Garanti launched a new, low-interest loan for hybrid cars.
- Carbon finance: Garanti aspires to be the most active company for bringing carbon finance to Turkey. In the near future, an international agreement could offer new sources of finance for developing countries to fight climate change. Once concluded, Garanti intends to create channels for domestic players to access these funds.

#### UNMATCHED CONVENIENCE/BEST EXECUTION and DEDICATION TO CUSTOMER SATISFACTION

Supported by our commitment to continuous technological innovation, we seek to provide customers with convenient, uninterrupted service. This neatly aligns with our climate change activities, as follows:

- Use of alternative delivery channels (ADC): We are the market leader in ADC utilization, which includes on-line banking and use of mobile devices. These channels eliminate energy, paper and other resource use associated with operations and customer travel.
- Business continuity: To minimize risks associated with extreme weather, Garanti has a comprehensive program for ensuring business continuity. This includes plans for minimizing disruption at branches and maintenance of data functions.

#### PROCESS EXCELLENCE THROUGHOUT THE ORGANIZATION

Actions to address climate change naturally align with our commitment to operational efficiency and effective cost management, essential for a large, facility-intensive company. Examples include:

- Facility energy use: Energy use at facilities is the largest part of our footprint and an opportunity to optimize operations and cut costs. Efforts we are currently considering include rethinking branch opening hours to reduce idle time energy use; and optimizing location, size and hardware at all branches to improve energy and resource utilization.
- Efficient new buildings: To enable low-carbon, low-cost growth, Garanti intends to use best practices and technologies at our new facilities. For example, we are building a new data center in Istanbul that will be certified under the Leadership in Energy and Environmental Design Building Program.
- Employee travel: We seek to maximize use of e-learning and video conferencing in an effort to minimize travel miles and associated consumption of resources.

#### OTHER KEY EFFORTS

Additional activities that support our strategic goal of demonstrating leadership for corporate governance and social responsibility include:

- Employee engagement: Success with climate change efforts will require simple solutions that can be easily deployed by hundreds of people. One such example is our campaign to recycle paper. Paper use is likely one of our largest contributions to scope 3 emissions. In 2009, we collected ~180,000 kg of paper for recycling.
- Renewable energy use: Garanti is committed to using energy from renewable sources when it is cost-competitive and doesn't conflict with existing contracts. In 2009, we bought 29,000 MWh of wind energy for TL 7.5 million. This resulted in a reduction of 20.1% of our 2009 emissions compared to using the same amount of energy without green power.
- External communications: Communication of climate change efforts will focus on several audiences and will rely on use of the following: Annual reports, Quarterly "Stockwatch" publications, a pending sustainability report, our website and investor presentations.

## 9.2 Do you have a current emissions reduction target?

No, but we are developing one

## 9.4 Please give details of the target(s) you are developing and when you expect to announce it/them. (If you are in the process of developing a target)

Garanti expects to announce a company-wide greenhouse gas emissions target as part of next year's CDP response. It will be an intensity target based on square meters of facility space, which we believe is the most appropriate way to drive reductions for a company with a rapidly expanding facility footprint. Further, it will use a more accurate 2010 inventory as its baseline, covering scope 1 and 2 emissions from all owned and operated facilities, emissions from all company-owned vehicles and select scope 3 emissions, such as employee air travel. In addition to setting a company-wide goal, Garanti expects to set emissions reduction and energy use reduction targets for key operational sectors and/or facility types.

Setting a credible target and effectively measuring performance against this target requires a sufficiently accurate baseline of greenhouse gas emissions. While we have undertaken significant effort to construct as accurate an inventory as possible, we do not have full data for all relevant scope 1 and scope 2 emissions sources across our wide collection of locations, particularly for on-site fuel. While we can use estimation techniques to compensate for missing data, this introduces a margin of error that is not insignificant and that could confound any attempt to track progress using year on year data. As a result, we are launching new data collection norms to minimize, and hopefully eliminate, future use of estimation techniques and to allow for a company-wide baseline appropriate for setting a target.

Nevertheless, we have a meaningful understanding of how emissions are likely to change over the next year and beyond. Here are key trends we can expect:

- An increase in absolute emissions due to our rapidly expanding geographic footprint: In 2009, we added nearly 70 new branches, bringing our total to 792. This represents a greater than 9% increase in total number of branches. We can expect similar growth in coming years. Branches and other properties contribute the following emissions sources:

Scope 1:

- o On-site fuel consumption for heating (typically natural gas) and back-up power generation (typically diesel)
- o Fuel usage from our fleet of vehicles
- o Refrigerant leakage, primarily from our offices (this represents a fairly insignificant contribution to total emissions)

Scope 2:

- o Electricity usage for lighting, air conditioning, and to power computers and other equipment.

- A decrease in per facility emissions due to use of technologies and behaviors to increase efficiency: As we more fully deploy our climate change strategy, we expect to launch new initiatives to minimize energy use at all facilities. We expect our initiatives will include lighting, HVAC systems and use of computers and other equipment, resulting in a decrease in the per property scope 1 and scope 2 emissions listed above.

- A one-time increase in emissions from electricity use at large facilities due to the pricing of renewable energy: Garanti is committed to purchasing renewable energy when it is cost competitive with traditional electricity sources and does not conflict with existing contracts. In 2009, Garanti purchased over 29,000 MWh of wind energy for TL 7.5 million. This resulted in a total reduction of 20.1% of our 2009 greenhouse gas footprint. However, due to the high relative price difference between traditional and renewable energy in 2010 (greater than 25%), we have not purchased renewable energy this year. We hope to resume use of renewable energy in the near future.

- Inclusion of on-site fuel usage for 2010: Due to incomplete data and an inability to accurately estimate on-site fuel use by extrapolating from other properties, we chose to exclude on-site fuel emissions for this submission. We are in the process of upgrading data collection to support our estimation of carbon emissions and expect to have full data for scope 1 and 2 emissions for 2010. Therefore, we expect this to create a one-time bump in total reported emissions. Based on industry average data, we expect on-site fuel use to be roughly 10% of our total actual footprint.

In combination, the above trends should result in an increase in reported scope 1 and scope 2 emissions of 30-40% for 2010, driven primarily by use of non-renewable electricity and inclusion of on-site fuel use. Beyond 2010, we expect an absolute emissions growth rate lower than our growth rate in square meters of property under management, driven by energy-efficiency gains and other carbon reduction efforts.

## Further Information

## Page: Strategy - Emission Reduction Activities

### ¿ Is question 9.7 relevant for your company?

Yes

## 9.7

Please use the table below to describe your company's actions to reduce its GHG emissions.

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings
Purchase of wind energy for use at office buildings	Not relevant			11682	Achieved		No cost			
Provision of shuttle buses for employees traveling to and from work	Anticipated				Anticipated	13000000	TRY			

1. Actions - please describe	2. Annual energy saving	3. Annual energy savings - number	4. Annual energy saving - units	5. Annual emission reduction in metric tonnes CO2-e	6. Reduction - achieved or anticipated	7. Investment - number	8. Investment - currency	9. Monetary savings - number	10. Monetary savings - currency	11. Monetary savings
Recycling of paper from office buildings and branches	Not relevant			231	Achieved		Insignificant costs - not quantified			

**9.9**  
Please provide any other information you consider necessary to describe your emission reduction activities.

**9.10**  
Do you engage with policy makers on possible responses to climate change including taxation, regulation and carbon trading?

No

#### Further Information

### Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

#### Page: Emissions Boundary - (1 Jan 2009 - 31 Dec 2009)

**10.1**  
Please indicate the category that describes the company, entities, or group for which Scope 1 and Scope 2 GHG emissions are reported.

Companies over which operational control is exercised

**10.2**  
Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions within this boundary which are not included in your disclosure?

Yes

**10.3**  
Please complete the following table.

Source	Scope	Explain why the source is excluded
Onsite fuel	Scope 1	Garanti was able to collect cost data for many facilities but the delivery system was not always clearly indicated. Usage data (amounts and types of fuel consumed) was not consistently available for onsite fuels, and have been excluded from this disclosure because of the inability to estimate these sources with any level of certainty. Garanti has already begun to address this data gap and will endeavor to record and collect actual consumption data for 2010. We expect that this missing data will constitute at least 10% of the current inventory (~5,000 tons).

## 11.1a

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions and/or describe the procedure you have used (in the text box in 11.1b below).

Please select the published methodologies that you use.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

## 11.1b

Please describe the procedure that you use.

Garanti asked Karbon Ekonomi to calculate its 2009 GHG inventory. Through Karbon Ekonomi, Garanti used the ClearCarbon system to calculate its corporate inventory. By using this central application, Karbon Ekonomi ensures that the most current emissions factors are used; enforces referential integrity to make sure all of the data are calculated properly; and codifies business rules and procedures into a common framework that is repeatable and has undergone rigorous testing and validation processes.

Scope 1 and 2 emissions were calculated for the Garanti owned and operate facilities, ATM machines, and vehicles. Emissions were also calculated for business air travel.

Facilities data were calculated based on activity data collected from the facilities where possible; estimations based on cost were used for facilities where activity data was not available. Activity data were supplied in the form of monthly or annual invoices for electricity, diesel, and gasoline purchases. Garanti was able to track fuel consumption for a majority of its vehicles.

Refrigerant data was estimated using the Climate Savers Screening Methodology for Refrigerants.

Global warming potentials were used to convert N<sub>2</sub>O, CH<sub>4</sub>, and HFC emissions into CO<sub>2</sub>e. No PFCs or SF<sub>6</sub> were emitted by Garanti and therefore are not included in this inventory.

## 11.2

Please also provide the names of and links to any calculation tools used.

Please select the calculation tools used.

Other: ClearCarbon Internal Application

## 11.3

Please give the global warming potentials you have applied and their origin.

Gas	Reference	GWP
Carbon dioxide	IPCC Second Assessment Report (SAR - 100 year)	1
Methane	IPCC Second Assessment Report (SAR - 100 year)	21
Nitrous oxide	IPCC Second Assessment Report (SAR - 100 year)	310
HCFC-22	IPCC Second Assessment Report (SAR - 100 year)	0
HFC-134a	IPCC Second Assessment Report (SAR - 100 year)	1300
Other: R407a	IPCC Second Assessment Report (SAR - 100 year)	1770
Other: R407c	IPCC Second Assessment Report (SAR - 100 year)	1526

## 11.4

Please give the emission factors you have applied and their origin.

Fuel/Material	Emission Factor	Unit	Reference
Gas/Diesel oil	22.40	lb CO <sub>2</sub> -e per gallon	WRI Emission Factors Compilation from Cross-Sector Tools. Version 1.0. July 2009.
Motor gasoline	19.56	lb CO <sub>2</sub> -e per gallon	WRI Emission Factors Compilation from Cross-Sector Tools. Version 1.0. July 2009.
Other: Electricity (Turkey)	283.07	lb CO <sub>2</sub> -e per million BTU	World Resources Institute (2009). GHG Protocol tool for Purchased Electricity, Heat, or Steam.
Other: Business Air Travel: Long-haul	0.41	Other: lb CO <sub>2</sub> -e per passenger mile	EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport. May 2008.
Other: Business Air Travel: Medium-haul	0.51	Other: lb CO <sub>2</sub> -e per passenger mile	EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport. May 2008.
Other: Business Air Travel: Short-haul	0.62	Other: lb CO <sub>2</sub> -e per passenger mile	EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport. May 2008.
Other: Business Air Travel: Unkown distance	0.60	Other: lb CO <sub>2</sub> -e per passenger mile	EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport. May 2008.

## 12.1

Please give your total gross global Scope 1 GHG emissions in metric tonnes of CO<sub>2</sub>-e.

8458

¿

Is question 12.2 relevant to your company?

Yes

## 12.2

Please break down your total gross global Scope 1 emissions in metric tonnes CO<sub>2</sub>-e by country/region.

Country	Scope 1 Metric tonnes CO <sub>2</sub> -e
Turkey	8458

## 12.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by business division. (Only data for the current reporting year requested.)

Business Division	Scope 1 Metric tonnes CO <sub>2</sub> -e
Corporate (non-branch buildings and operations)	8458

## 12.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 1 emissions by facility. (Only data for the current reporting year requested.)

Facilities	Scope 1 Metric tonnes CO <sub>2</sub> -e
GARANTİ TEKNOLOJİ (Data center/office)	159
GENEL MÜDÜRLÜK BİNASI (Headquarters)	387
GUNESLI B BLOK (Data center/office)	58
GUNESLI C BLOK (Data center/office)	117
GUNESLI D BLOK (Data center/office)	0

¿

Is question 12.6 relevant to your company?

Yes

## 12.6

Please break down your total gross global Scope 1 emissions by GHG type. (Only data for the current reporting year requested.)

GHG Type	Scope 1 Emissions (Metric tonnes)	Scope 1 Emissions (Metric tonnes CO <sub>2</sub> -e)
CO <sub>2</sub>	7706.30	7706
CH <sub>4</sub>	0.16	3
N <sub>2</sub> O	0.09	28
HFCs	0.54	721
PFCs	0.00	0

¿

Is question 12.8 relevant to your company?

Yes

## 12.8

Please give the total amount of fuel in MWh that your organization has consumed during the reporting year.

31356

¿

Is question 12.10 relevant to your company?

Yes

## 12.10

Please complete the table by breaking down the total figure by fuel type.

Fuels	MWh
Gas/Diesel oil	15167.00
Motor gasoline	16189.00

12.12

Please estimate the level of uncertainty of the total gross global Scope 1 figure that you have supplied in answer to question 12.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty Range	Main sources of uncertainty	Please expand on the uncertainty in your data
Less than or equal to 2%	Data Gaps Assumptions Metering/ Measurement Constraints	Estimations were made for Refrigerant (9% of scope 1) and Transport fuel (91% of scope 1) usage. Estimations were not made for onsite fuels such as natural gas or propane. Because emissions were not calculated for onsite fuel, this uncertainty analysis does not include potential emissions resultant from onsite fuel. For refrigerants, actual recharge amounts were unavailable. Refrigerant leakage was estimated using the capacity of units and an estimated leakage rate based on the type of system. Less than two percent of the emissions from transport fuel were estimated based on cost where actual usages were not available. Using a sum of squares method, and estimating an activity margin of error of 20% and 10% for refrigerants and transport fuel, respectively, Garanti estimates a less than 2% level of uncertainty for Scope 1 emissions.

Further Information

[Page: Emissions Scope 2 - \(1 Jan 2009 - 31 Dec 2009\)](#)

13.1

Please give your total gross global Scope 2 GHG emissions in metric tonnes of CO2-e.

37845

¿

Is question 13.2 relevant to your company?

Yes

13.2

Please break down your total gross global Scope 2 emissions in metric tonnes of CO2-e by country/region.

Country	Metric tonnes CO2-e
Turkey	37845

13.4

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by business division. (Only data for the current reporting year requested.)

Business division name	Metric tonnes CO2-e
Banking (branches for retail, commercial, corporate and other banking activities)	30324
Corporate (non-branch buildings and operations)	7521

13.5

Where it will facilitate a better understanding of your business, please also break down your total gross global Scope 2 emissions by facility. (Only data for the current reporting year requested.)

Facility name	Metric tonnes CO2-e
Too Many to List	

¿

Is question 13.6 relevant to your company?

Yes

13.6

How much electricity, heat, steam, and cooling in MWh has your organization purchased for its own consumption during the reporting year?

Please supply data for these energy types.	MWh
Electricity	113018

13.8

Please estimate the level of uncertainty of the total global Scope 2 figure that you have supplied in answer to question 13.1 and specify the sources of uncertainty in your data gathering, handling, and calculations.

Uncertainty range	Main sources of uncertainty in your data	Please expand on the uncertainty in your data.
More than 5% but less than or equal to 10%	Data Gaps Assumptions Extrapolation Metering/ Measurement Constraints	Garanti estimated approximately 58% of the emissions resultant from electricity use, using three estimation methods: an extrapolation for facilities where there were gaps in actual data (~27% of scope 2 emissions), application of an area intensity for locations where no data was available (~26% of scope 2 emissions), and application of an average cost rate for 2009 (~5% of scope 2 emissions). Using a sum of squares method, and estimating an activity margin of error of 10%, 20% and 20% respectively for the extrapolation to same facilities, extrapolation to similar location type by intensity methods, and estimation based on cost, Garanti estimates level of uncertainty between 5 and 10% for Scope 2 emissions.

**Further Information**

[Page: Emissions Scope 2 Contractual](#)

**14.1**  
Do you consider that the grid average factors used to report Scope 2 emissions in question 13 reflect the contractual arrangements you have with electricity suppliers?

Yes

**14.4**  
Has your organization retired any certificates, e.g. Renewable Energy Certificates, associated with zero or low carbon electricity within the reporting year or has this been done on your behalf?

No

**Further Information**

[Page: Emissions Scope 3](#)

¿  
Is question 15.1 relevant to your company?

Yes

**15.1**  
Please provide data on sources of Scope 3 emissions that are relevant to your organization.

Sources of Scope 3 emissions	Metric tonnes of CO <sub>2</sub> e	Methodology	If you cannot provide a figure for a relevant source of Scope 3 emissions, please describe the emissions.
Business travel	1478	The calculation was made using EPA passenger mile emissions factors and flight data from Garanti's travel agent. Each flight leg was assigned the appropriate emission factor based on the distance of the flight. The flight distance was multiplied by the following provided emission factors to arrive at the Scope 3 business air travel emissions. Short-Haul (<300 miles)- 0.28 kg CO <sub>2</sub> e/ passenger-mile Medium-Haul (>=300 miles and <700 miles)- 0.232 kg CO <sub>2</sub> e/ passenger-mile Long-Haul (>700 miles)- 0.188 kg CO <sub>2</sub> e/ passenger-mile From EPA Climate Leaders Optional Emissions from Employee Commuting, Business Travel and Product Transport (June 2008).	

**Further Information**

[Page: Emissions 7](#)

**16.1**  
Does the use of your goods and/or services enable GHG emissions to be avoided by a third party?

Yes

**16.2**

Please provide details including the anticipated timescale over which the emissions are avoided, in which sector of the economy they might help to avoid emissions and their potential to avoid emissions.

In 2009, Garanti financed US\$420 million in 6 wind farms with a combined annual generation capacity of 285 megawatts. While numerous players are required for realization of such large-scale projects, provision of capital is critical and, therefore, we believe, worth including as a service that helps a third-party (in this case, the plant operator) reduce total emissions. We have conservatively estimated that these wind farms will, collectively, reduce carbon emissions by 218,813 metric tons CO2e per year, based on the current average grid factor for Turkey. Wind turbines have a typical lifespan of about 25 years. As use of renewable energy becomes more wide-spread in Turkey, we do expect the average grid factor to decrease, somewhat reducing year-on-year carbon emissions savings from these farms. Garanti will continue to actively look for additional opportunities to support wind projects and other renewable energy projects, such as solar, as government incentives and market dynamics allow them to become viable. (scroll to the end of this answer to see how we calculated the estimated reduction in emissions)

In addition, we are in the process of rapidly expanding existing efforts to provide financing for energy and resource efficiency projects across a wide array of market segments. For example, with support from the European Bank for Reconstruction and Development and the Clean Technology Fund, Garanti will soon offer US\$ 60 million of favored lending for energy efficiency improvements in residences, small and medium enterprises, industry/manufacturing, commercial buildings and renewable energy projects. As these funds could be used to cover a wide variety of investments (on-site renewable energy, efficient heating and cooling systems, insulation, environmentally-friendly materials and more) we have not attempted to estimate likely avoided emissions. Nevertheless, we believe these efforts will be significant by directly reducing emissions and by helping to launch a variety of new markets and technologies.

**OUR CALCULATION FOR ESTIMATED REDUCTIONS FROM WIND FARMS**

Annual Energy Generated [MWh/year] = Capacity [MW] x Capacity Factor [Dimensionless] x Hours per Year [Hrs/year]

Annual CO2e Emissions Avoided [metric tons/year] = Annual Energy Generated [MWh/year] x CO2e Emission Factor [metric tons/MWh]

Using:

Capacity: 285 MWh

Capacity Factor (Estimated): 20% (this is very conservative for Turkish wind projects)

Time: 365\*24 = 8,760 hrs

Turkish Emission Factor: 0.438222 metric tons/MWh (Emission Factor Source: "World Resources Institute (2009). GHG Protocol tool for Purchased Electricity, Heat, or Steam". GWP Source: "IPCC Second Assessment Report: Climate Change 1995")

Then:

Annual Energy Generated: 499,320 MWh

Annual CO2e Emissions Avoided: 218,813 metric tons/year

¿ Is question 17.1 relevant to your company?

No

17.2 Please explain why not.

To our knowledge, biological material is not combusted, whether for energy generation or waste disposal, in any of Garanti's operations.

**Further Information**

[Page: Emissions 8](#)

18.1a Please describe a financial intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

If you do not consider a financial intensity measurement to be relevant to your company, select "Not relevant" in column 5 and explain why in column 6.

Figure for Scope 1 and Scope 2 emissions	GHG units	Multiple of currency unit	Currency unit	Financial intensity metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
0.40	Kilograms CO2-e	1	TRY	Other: Total consolidated assets for 2009	

18.1b Please describe an activity-related intensity measurement for the reporting year for your gross combined Scope 1 and Scope 2 emissions.

Oil and gas sector companies are also asked to report activity-related intensity metrics in answer to table O&G1.3.

If you do not consider an activity-related intensity measurement to be relevant to your company, select "Not relevant" in column 3 and explain why in column 4.

Figure for Scope 1 and Scope 2 emissions	GHG units	Activity-related metrics	Please explain if not relevant. Alternatively provide any contextual details that you consider relevant to understand the units or figures you have provided.
2.75	Metric tonnes CO2-e	per full-time equivalent employee	

**19.1**  
Do the absolute emissions (Scope 1 and Scope 2 combined) for the reporting year vary significantly compared to the previous year?

This is our first year of estimation.

**20.1A**  
Please complete the following table indicating the percentage of reported emissions that have been verified/assured and attach the relevant statement.

Scope 1 (Q12.1)	Scope 2 (Q13.1)	Scope 3 (Q15.1)
Not verified	Not verified	Not verified

**20.1B**  
I have attached an external verification statement that covers the following scopes:

Further Information

[Page: Emissions 9 Trading](#)

**21.1**  
Do you participate in any emission trading schemes?

We don't currently, but anticipate participating in emissions trading within the next two years.

**21.3**  
What is your strategy for complying with the schemes in which you participate or anticipate participating?

As part of an overall plan to reduce emissions from key sectors, new legislation could also allow Turkish companies to participate in the European Emission Trading System. As a financial institution, we would not expect to be regulated under this scheme. However, we believe such an event could pose significant opportunity for us by rapidly growing the market for related services, including acting as a broker for emissions rights and lending to emission-reducing projects (such as for renewable energy and energy-efficiency). Garanti intends to position as a leader in this emerging market across its broad base of customers. Many of our largest corporate clients are in energy-intensive sectors and would likely be required to participate in any trading scheme adopted by Turkey.

**21.4**  
Has your company originated any project-based carbon credits or purchased any within the reporting period?

No

Further Information

[Module: Climate Change Communications](#)

[Page: Communications 1](#)

**22.1**  
Have you published information about your company's response to climate change/GHG emissions in other places than in your CDP response?

No

## Further Information

Communication of our climate change activities will focus on several audiences, including investors, customers and the general public. With assistance from WWF-Turkey, Garanti has already created an educational publication called “101 Tips to Stop Global Warming” aimed at employees and the general public (see: [http://www.garanti.com.tr/en/our\\_company/social\\_responsibility/projects\\_on\\_nature/101\\_ways\\_stop\\_global\\_warming.page?](http://www.garanti.com.tr/en/our_company/social_responsibility/projects_on_nature/101_ways_stop_global_warming.page?)). In the future, we expect to use all of the following forums for communication of our climate-change related activities: o Annual reports o Quarterly “Stockwatch” publications o A sustainability report, expected to be launched with the 2011 Annual Report o Our company website o Internal education communiques to employees o Investor and roadshow presentations o Regular emails to investors

## Carbon Disclosure Project