Module: Introduction

Page: Introduction

0.1
Introduction
Please give a general description and introduction to your organization

Garanti Bank, with an established history of 65 years, is Turkey's second largest private bank with total consolidated assets in 2011 of TRY 163.5 billion. Garanti provides a wide range of financial services to its customers through an extensive distribution network of more than 900 domestic branches; 7 foreign branches in Cyprus, Luxembourg and Malta; 4 international representative offices in Moscow, London, Düsseldorf and Shanghai; over 3,200 ATMs; an award-winning Call Center; and state-of-the-art internet and mobile banking platforms built on cutting-edge technological infrastructure.
Garanti operates in every segment of the banking sector including corporate, commercial, SME, retail, private and investment banking. Along with its nine expert subsidiaries providing services in payment systems, pension, leasing, factoring, securities, and portfolio management, Garanti is an integrated financial services group. Moscow-based GarantiBank Moscow (GBM), Amsterdam-based GarantiBank International (GBI), and Romania-based Garanti Bank SA with its 65 branches are also included among these subsidiaries.
In addition to providing comprehensive services to its customers, Garanti is dedicated to creating added value for society. Within this context, Garanti's long-term support in the areas of culture, arts, environment, education and sports reflects its commitment to this mission, as well as its keen sensitivity to sustainability.
This is Garanti's third submission to the Carbon Disclosure Project. Over the past year, the company has transisitioned from a period of organization and planning related to climate change to one of implementation. To drive this transition, in mid-2011, Garanti adopted its first greenhouse gas emissions reduction goal. Our goal is to reduce total emissions by 7% per total assets under management by 2012 against our 2010 baseline. Garanti sees this goal as the first of many that will drive an on-going commitment to reducing direct emissions and influencing emissions reductions in the broader community in which the company operates. These efforts form a key part of the bank's overall commitment to sustainability. To support this commitment, Garanti recently joined the United Nations Environment Program Finance Initiative (UNEP FI), the United Nations Global Compact and the Turkey chapter of the World Business Council for Sustainable Development. Finally, Garanti is now in the process of becoming ISO 14001 certified for environmental management at key facilities.

0.2
Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Sat 01 Jan 2011 - Sat 31 Dec 2011

0.3
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

0.4
Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

TRY

0.5
Please select if you wish to complete a shorter information request

0.6
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 (according to the Global Industry Classification Standard (GICS)), the corresponding sector modules will be marked as default options to your information request. If you want to query your classification, please email respond@cdproject.net.

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 https://www.cdproject.net/en-US/Programmes/Pages/More-questionnaires.aspx.

Further Information

Module: Management [Investor]

Page: 1. Governance

1.1
Where is the highest level of direct responsibility for climate change within your company?

Individual/Sub-set of the Board or other committee appointed by the Board

1.1a
Please identify the position of the individual or name of the committee with this responsibility

Garanti's climate change efforts are coordinated by its Sustainability Committee. Formed in 2010, the Committee is chaired by a non-executive Board Member. Committee Members include the Executive Vice presidents of Support Services, Loans and Project Finance; the Corporate and Commercial Loans Coordinator; the Senior Vice Presidents of Project Finance, Investor Relations, the Internal Control Unit, Corporate Brand Management and Marketing Communications, and Financial Institutions; and the Compliance Officer. The Sustainability Committee meets a minimum of four times a year in order to monitor the progress on and to provide input to all sustainability efforts, including climate change. The Committee is deliberately structured to integrate climate change and other environmental concerns and opportunities into all operations, products and services. In addition, this structure ensures that all efforts are consistent with internal policies and related regulations.

In 2011, under the Sustainability Committee, Garanti created a full-time "Sustainability Team" to implement the envisaged activities and to be responsible for the management of the direct and indirect environmental impacts. The team will consist of three full-time members when complete. Currently, we have a Sustainability Supervisor and Sustainability Associate and expect to soon add an Environmental Impact Assessment Supervisor. The Sustainability Team is led by the Executive Vice President of Project Finance and is supported by a Sustainability Working Group made up of participants from Construction, Corporate Communications and Brand Management, Purchasing, Training, Human Resources, Internal Control and Compliance, and Investor Relations. The Sustainability Team conducts monthly or bi-monthly meetings to monitor performance in regards to previously determined goals and collects input from all related departments of the bank to be utilized in sustainability efforts. Additionally, Garanti is in the process of selecting sustainability representatives from each department and each individual bank branch to provide a general level of support when needed to all sustainability efforts.

1.2
Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

1.2a
Please complete the table

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator
Other: Board Member: M. Cüneyt Sezgin (Sustainability Committee)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Executive Vice President: Adnan Memiş (Sustainability Committee)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Executive Vice President: Ali Temel (Sustainability Committee)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Executive Vice President: Ebru Edin (Sustainability Committee)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Financial Institutions Director: Batuhan Tufan (Sustainability Committee)	Recognition (non -monetary)	Providing access to international funds for financing of renewable energy and energy efficiency projects
Other: Corporate Brand Management and Marketing Communications Director: Elif Güvenen (Sustainability Committee)	Recognition (non -monetary)	Communication of climate change mitigation and sustainability efforts
Other: Internal Control Director: Emre Özbek (Sustainability Committee)	Recognition (non -monetary)	Implementation of national laws and regulations related to climate change
Other: Investor Relations Director: Handan Saygın (Sustainability Committee)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Vice President: Mustafa Tiftikçioğlu (Sustainability Committee)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Manager: Barış Gülcan (Sustainability Working Group)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Manager: Corporate Brand Management and Marketing Communications Derya Acar (Sustainability Working Group)	Recognition (non -monetary)	Communication of climate change mitigation and sustainability efforts

Who is entitled to benefit from these incentives?	The type of incentives	Incentivised performance indicator
Other: Project Finance Manager: Emre Hatem (Sustainability Team)	Recognition (non -monetary)	Increase in the overall sustainability performance of the Bank and preserving the market leadership in renewable energy finance
Other: Corporate Brand Management and Marketing Communications Manager: Selda Sarıkaya (Sustainability Working Group)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Investor Relations Supervisor: Ayça Paksoy (Sustainability Working Group)	Recognition (non -monetary)	Communication of climate change mitigation and sustainability efforts with stakeholders
Other: Organizational Development & Process Improvement Supervisor: Barış Ertan (Sustainability Working Group)	Recognition (non -monetary)	Determination of the processes and task definitions related to the implementation of climate change mitigation efforts
Other: Project Finance Supervisor: Cahit Büyükbaş (Sustainability Working Group)	Recognition (non -monetary)	Preserving the market leadership in renewable energy finance
Other: Sustainability Supervisor: Feride Nagehan Öztürk (Sustainability Team)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators
Other: Corporate Brand Management and Marketing Communications Supervisor: Gözde Pınar (Sustainability Working Group)	Recognition (non -monetary)	Communication of climate change mitigation and sustainability efforts
Other: Corporate Brand Management and Marketing Communications Supervisor: Nazlı Çakıroğlu (Sustainability Working Group)	Recognition (non -monetary)	Communication of climate change mitigation and sustainability efforts
Other: Construction Department Environmental Engineer: Omer Ozkan (Sustainability Working Group)	Recognition (non -monetary)	Research and implementation of climate change mitigation measures in bank facilities
Other: Sustainability Associate: Derya Özet Yalgı (Sustainability Team)	Recognition (non -monetary)	Increase in the overall sustainability performance of the bank as driven by multiple indicators

Further Information

Page: 2. Strategy

2.1
Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

Integrated into multi-disciplinary company wide risk management processes

2.1a
Please provide further details (see guidance)

i. Risk assessment at Garanti covers market risk, credit risk, interest rate risk, liquidity risk, operational risk and reputational risk. The Departments of Internal Systems (namely Internal Audit, Risk Management, Internal Control, Compliance and Fraud) directly report to the board of directors. Of particular relevance to climate change, Garanti's Business Continuity and Disaster Recovery efforts are coordinated by the Internal Control Department. To the extent that climate issues are not captured in these existing efforts, further assessment of climate change-related risks and opportunities is led by the Sustainability Committee and Team. In this structure, the Sustainability Committee keeps all relevant departments and efforts informed of emerging climate change related risks and opportunities.
ii. As described above (i) assessment of Company-level risks is primarily coordinated by the Departments of Internal Systems. However, specific to climate-change, this assessment is now supported by the Sustainability Committee and, as it pertains to reputation, Investor Relations and Communications. Together, these departments/committees are responsible for identifying emerging risks and opportunities, making a determination on their materiality (see v. below), enrolling key personnel and recommending potential courses of action. Where necessary and feasible, this can involve quantification of required investments and potential cost savings or return.
iii. Asset level risks and opportunities are managed as follows: the Internal control department is responsible for weather/physical impacts of climate change and oversees the company's Business Continuity and Disaster Recovery Plan; the Construction Department is responsible for site specific energy/carbon reduction opportunities; the various banking units (Project Finance, Commercial and Corporate Banking, and Retail Banking) are responsible for climate-related new market opportunities, such as for energy-efficiency and renewable energy; and Project Finance is responsible for environmental risks associated with large projects and maintains an on-going effort to strengthen its assessment of environmental impacts. As described above, these departments identify emerging issues, make initial determinations on materiality, enroll key personnel and recommend courses of action. This is frequently supported by performing analysis on required investments and payback/return. Garanti also has specific measures for critical, unique properties upon which all operations depend. 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 or sabotage.
iv. As risk and opportunity management are spread across a variety of departments and committees, the frequency of monitoring can vary depending on the specific aspect of climate change concerned. However, it can be said that monitoring for nearly all topics will typically range from weekly to monthly. Also, as mentioned, the newly created Sustainability Committee now provides a general level of risk and opportunity assessment to supplement all existing efforts. This committee typically meets at least once every two months.
v. The process of estimating materiality will vary depending upon the nature of the risk or opportunity. In general, the following are frequently used criteria for assessing materiality at Garanti: potential financial gain/loss, contribution to the bank's carbon footprint, furtherance of customer satisfaction and level of stakeholder interest. The company pays particular attention to a number of stakeholders (including investors, customers, government entities, and and non-profit organizations) when identifying risks and determining their magnitude.
vi. Reporting on management of climate change risks and opportunities will vary depending upon which of the above mentioned departments has primary responsibility. Nevertheless, management of all climate related issues involves direct reporting, at a

minimum, to department heads and, in many cases, directly to the CEO and/or board of directors. This reporting regime has been further strengthened by the creation of our Sustainability Committee, which receives detailed reports and, as appropriate, reports on risks and opportunities to the board of directors as part of its quarterly update meeting.

2.2
Is climate change integrated into your business strategy?

Yes

2.2a
Please describe the process and outcomes (see guidance)

Garanti views climate change as a strategic issue deserving of full integration into the core business. This includes owned operations and the indirect impacts created by our customers and suppliers.
i. Garanti has numerous mechanisms in place to ensure that climate change influences the business strategy at the company-level and for individual units: (a) communication to senior leadership and relevant departments by the Sustainability Committee, which has primary responsibility for identifying and assessing climate change risks and opportunities, (b) company-wide communication for specific efforts (e.g., branch and office energy efficiency opportunities), (c) a company-wide emissions reduction target, and (d) the regular tracking and reporting of performance to senior executives and relevant department heads.
ii. Below, is a listing of specific company-wide strategic priorities with a description of sample initiatives that support these priorities. This description includes mention of the specific forces that have influenced integration of climate change into the business strategy.

a. High product and service quality with continuous innovation: As part of our commitment to product and service innovation, Garanti is positioning as a leader in meeting the needs of the growing low-carbon economy. These efforts have been influenced by a belief in future market potential as well as the high likelihood of future regulation regarding greenhouse gases. In 2011, through the TURSEFF and Mid-SEFF programs (described in more detail for question 3.2a), Garanti approved loans of US$ 23 million and US$ 85 million, respectively, for energy-efficiency and renewable energy projects. The company also provided long-term financing of US$ 316 million for 6 wind farms with total generation capacity of 250 megawatts and US$ 648 million for 11 hydroelectric plants with total generation capacity of 1,015 megawatts. Lastly, since 2009, the bank offers customers a Green Auto Loan, a low-interest package specifically for hybrid vehicles.
b. Unmatched convenience and customer satisfaction: Garanti seeks to provide customers with convenient, uninterrupted service, which aligns with the company's desire to reduce emissions from the value chain and minimize the impact from climate-driven weather events. First, Garanti is the market leader in utilization of Alternative Delivery Channels, which includes advanced ATMs and internet/mobile banking. These channels reduce the use of energy, paper and other resources associated with operations and customer travel. Second, Garanti has a comprehensive program for ensuring business continuity. This includes plans for minimizing disruption at branches and maintenance of data functions.
c. Process excellence throughout the organization: Actions to address climate change naturally align with Garanti's commitment to operational efficiency and effective cost management, essential for a large, facility-intensive company. In particular, the bank is committed to increased energy efficiency across all operations. This priority is influenced by a clear business case for cost optimization, industry best practices, emerging technology and a desire to get ahead of future regulations that could increase energy prices. To further drive progress against this opportunity, Garanti has set a company -wide CO_2 reduction goal. Specific related efforts include retrofit of branches (including lighting and AC units), virtualization of data centers, and promotion of e-learning and virtual meetings in lieu of in-person events which require travel.
d. A reputation built on leadership by example: As expectations rise for leadership on climate-change, Garanti intends to walk the walk. In addition to the efforts described above, the company plans to rigorously monitor, assess and report performance. In support of this, Garanti is in the process of establishing a comprehensive environmental management system with the ultimate goal of becoming ISO 14001 certified at key facilities. Also, over the last year, we have joined the UN Environment Program Finance Initiative, the UN Global Compact and the World Business Council For Sustainable Development.

iii. For the short-term, Garanti is focused on the efforts mentioned above: positioning to meet the growing market for banking products and services aimed at energy efficiency and renewable energy, provision of low-impact alternative banking options, energy and operational efficiency and communicating these efforts to key stakeholders.
iv. For the long-term, Garanti intends to increasingly focus on integration of climate-change and other environmental concerns into all project finance activities to further ensure selection of loan projects with the highest likelihood of success. This includes further understanding how climate associated regulation, physical impacts and other factors affect project performance.
v. Ultimately, integration of climate change risks and opportunities into business strategy improves the bank's competitive position by reducing costs, tapping new markets and protecting and enhancing reputation. To date, Garanti has emerged as the market leader for use of low-impact alternative delivery channels (such as internet and mobile banking) and financing of renewable energy projects (Garanti holds a 40% share of all wind projects). Garanti expects to achieve further top-line growth by meeting the growing market for "green" banking services, starting with energy-efficiency. Total profitability is enhanced by numerous efforts that lower cost while reducing carbon emissions. Additionally, Garanti believes the cumulative weight of these efforts will further the company's reputation and preserve its license to operate.
vi. Garanti has made a number of substantial business decisions during the past reporting year that have been influenced by climate change related risks and opportunities. These include but are not limited to:

- Formalizing our environmental systems in-line with ISO14001, which can support the addressing of nearly all of our climate related risks and opportunities
- A continuation of our on-going refurbishment of bank branches and, at data centers, virtualization of servers to increase energy efficiency, helping to insulate us from climate-change related price risk
- Finance of alternative energy projects, tapping the growing market for low-carbon
- Expanding use of ATMs that provide a full-range of banking services
- Building a new LEED-certified technology campus

2.3
Do you engage with policy makers to encourage further action on mitigation and/or adaptation?

Yes

2.3a

Please explain (i) the engagement process and (ii) actions you are advocating

i. Garanti engages with policy makers through its participation with several leading global environmental organizations. These include the United Nations Environment Program Finance Initiative (UNEP FI), the UN Global Compact and the World Business Council for Sustainable Development (WBCSD). These organizations allow for widespread, high-leverage engagement of the business community with numerous national and international organizations, including governments and policy-making bodies. Topics typically include best practice-sharing, integration of sustainability and governance into operations and high-level advocacy for policy, including specific measures focused on climate change. Garanti is now becoming actively involve in the working groups of these organizations from which it aims to play a role in raising overall stakeholder awareness, actively contributing to policy efforts and helping to disseminate and assimilate best practices, particularly as it relates to finance of a low-carbon economy.
ii. The organizations we have joined frequently advocate for climate change policy on behalf of members. For example, UNEP FI released a position paper for the Rio+20 Conference aimed at world governments. It calls for greater engagement to enable and incentivize financial sector participation in realizing a more sustainable, low-carbon future. Specifically, it seeks stronger incentives for financial institutions to incorporate sustainability issues into their risk management policies, a commitment to work closely with the financial sector in building the markets for long-term, sustainable lending, investment and insurance products and services, and promotion of the availability and accessibility of relevant and comparable sustainability information, as key elements in enabling financial sector decision-making.

Further Information

Page: 3. Targets and Initiatives

3.1
Did you have an emissions reduction target that was active (ongoing or reached completion) in the reporting year?

Intensity target

3.1b
Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions	Target year	Comment
Tar -1	Scope 1+2+3	100%	7%	metric tonnes CO2e per billion (currency) funds under management	2010	84394.5	2012	Scope 3 here is limited to employee air travel.

3.1c
Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comments
Tar -1	Increase	20	Increase	20	As we are a rapidly growing company, we were expecting absolute growth in emissions. However, total assets has increased more rapidly than expected, increasing the allowable growth in absolute emissions from exactly meeting our target. However, we are currently well ahead of this target: achieving a decrease in emissions per total assets of 10.8% after one year.

3.1d
Please provide details on your progress against this target made in the reporting year

ID	% complete (time)	% complete (emissions)	Comment
Tar -1	50	100	In 2011, Garanti reduced total emissions per billion TRY of total assets by 10.8% compared to our baseline of 2010 emissions. As stated above, our goal was to achieve a 7% reduction using this measure by 2012. Thus, we are currently ahead of our target. As this is an intensity target (and not absolute target) we still believe it is useful for the coming year, especially since year-on-year growth in total assets may change. However, as part of our climate change and sustainability efforts, we plan to continually upgrade our targets to ensure continuous and significant performance improvement.

3.2

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

Yes

3.2a
Please provide details (see guidance)

In 2011, Garanti invested US$316 million in 6 wind farms with a total installed capacity of 250 MW and $648 million in 11 hydro power plants with a total installed capacity of 1,015 MW. While numerous players are required for realization of such large-scale projects, provision of capital is critical and, therefore, Garanti believes, worth including as a service that helps a third-party (in this case, the plant operator) to reduce total emissions. Garanti has conservatively estimated that these wind farms and dams will, collectively, reduce carbon emissions by 2.47 million metric tons CO2e per year, based on the current average grid factor for Turkey. Wind turbines and dams have a typical life span of about 25 and 50 years, respectively. As use of renewable energy becomes more widespread in Turkey, it is expected that the average grid factor will decrease, reducing year-on-year carbon emissions savings from these projects. (scroll to the end of this answer to see how the annual estimated reduction in emissions was calculated) As we are not the project operator, we are not positioned to generate CERs from these projects.
In addition to its support for renewable energy, Garanti remains a leader in finance of low-carbon natural gas plants. For its US$700 million financing of the Unit Gebze CCGT project, Garanti won Euromoney's "European Power Deal of the Year" and Project Finance International's "Turkish Deal of the Year." Garanti also won Euromoney's "European Hydro Deal of the Year" for its TL120 million ($70.6 million) financing of the 76 MW Alarko Karakuz HEPP project in Southern Anatolia.
Also, through the Turkey Sustainable Energy Financing Facility (TURSEFF) and Mid-Sized Sustainable Energy Financing Facility (Mid-SEFF), both of which are supported by the European Bank for Reconstruction and Development and the European Investment Bank, Garanti provides favored lending to small and medium-sized energy efficiency and renewable energy projects. TURSEFF, for example, covers projects in residences, small and medium enterprises, factories, and commercial buildings. Typical projects include on-site renewable energy, efficient heating and cooling systems, insulation, and use of environmentally-friendly materials. In 2011, Garanti approved 20 new TURSEFF projects totaling over US$ 23 million in loans. Mid-SEFF covers mid-size investments in renewable energy, waste-to-energy and industrial energy efficiency. In 2011, Garanti approved 3 new projects for a total of EUR 83.5 million in loans.
Due to the wide variety of projects covered by these funds, Garanti has not attempted to calculate total potential emissions reductions. Nevertheless, the company believes these efforts will be significant by directly reducing emissions and by helping to launch a variety of new markets and technologies.
Calculation for estimated reductions from wind farms and hydro plants
Annual Energy Generated [MWh/year] = Capacity [MW] x Capacity Factor [Dimensionless] x Total hours in a year[Hrs/year]
Annual CO2e Emissions Avoided [metric tons/year] = Annual Energy Generated [MWh/year] x CO2e Grid Emission Factor [metric tons/MWh]
MWh Capacity Factor for Wind: 25% (conservative estimate)
MWh Capacity Factor for Hydro: 40% (conservative estimate)
Time: 365*24 = 8,760 hrs
Turkish Emission Factor: 0.6013 metric tons/MWh (Emission Factor Source: WWF-Turkey, 2012).

3.3
Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

3.3a
Please identify the total number of projects at each stage of development, and for those in the implementation stages, estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings (only for rows marked *)
Under investigation	2	
To be implemented*	1	290
Implementation commenced*	5	3320
Implemented*	3	130
Not to be implemented	0	

3.3b
For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Behavioral change	Increased use of technology to reduce travel: Garanti has significantly increased the level of training and information sharing carried out remotely using Webinars, interactive remote learning and teleconferencing. In 2011, e-learning (which does not involve travel) increased from 11% to 22% as a percent of total education. In particular, e-learning for branch personnel (those most likely to require significant travel for education) was 26% of total learning. Garanti's 2012 e-learning goal is 30% of total learning. We believe these efforts explain the estimated absolute reduction of more than 2% in emissions from air travel even though the bank continued to grow in 2011. This is a voluntary reduction of scope 3 emissions.	58			<1 year

Activity type	Description of activity	Estimated annual CO2e savings	Annual monetary savings (unit currency)	Investment required (unit currency)	Payback period
Transportation: fleet	In order to choose the shortest routes for shuttles used for employee commuting to its major Istanbul locations, Garanti has performed route optimization using an on-line service. This optimization is expected to reduce total annual travel distance for shuttle usage by 603,000 km. This is a voluntary reduction of scope 3 emissions.	287	364000	0	<1 year
Energy efficiency: processes	In 2007, Garanti began to consolidate and "virtualize" 300 servers in its data centers. This effort elevates real time computing power per server, reducing total server needs (and associated electricity use) as well as the tremendous cooling demand that servers require. Per square meter of property, data centers emit the greatest total amount of carbon across all bank properties. The average annual electiricity savings compared to pyhsical servers were 5,320,417 kWh over the past 4 years, and the savings are expected to increase by 20% each year henceforth. This is a voluntary reduction of scope 2 emissions.	3199	1430000		<1 year
Energy efficiency: building services	Garanti has completed/launched several lighting initiatives in the home office. These include use of efficient bulbs and fixtures. This is a voluntary reduction of scope 2 emissions.	135	61000	96000	1-3 years
Energy efficiency: building services	Garanti is designing its new facility, the Pendik Technology Campus, to meet LEED Gold certification. Construction started in August 2011 with completion expected by mid-2014. This will result in a voluntary reduction of both scope 1 and scope 2 emissions. As this facility is not a perfect substitute for existing buildings it will replace and since operations have yet to begin, we are not able to accurately calculate expected annual emissions reduction. Further, as LEED-focused design elements cannot be entirely separated from other building design elements, we have not attempted to calculate associated cost savings/investment/payback. However, according to the US Green Building Council, LEED buildings typically cost 2% more than comparable buildings and save 18-39% of total energy use. For LEED Gold, typical payback is 2.7 years.				1-3 years
Energy efficiency: building services	Garanti has a refurbishment program for existing branches intended to give them a 'greener' profile: replacing air-conditioning units with systems that are up to 40% more efficient and reducing the overall electricity consumption of a typical branch by 10%. This is a key role for the Construction Department, working closely with Garanti Technology and with the Procurement staff. In 2011, an additional 1,521 air conditioning units were installed in 50 facilities. The energy savings in 2011 were calculated roughly based on expected savings of a typical branch. Altough it is conservative, 32,340 kWh/year may not reflect the actual savings as the number would vary due to several reasons, i.e. human behavior, change of climate among different regions, change in working hours, etc. This will result in a voluntary reduction of primarily scope 2 emissions. These savings do not include new branches, which typically demonstrate greater energy efficiency than existing branches.	20	8100		>3 years
Energy efficiency: building services	In our branches, we have launched 2 projects to replace lighting of advertising boards with LEDs. This is a voluntary reduction of scope 2 emissions.	38	16000	19000	1-3 years

3.3c
What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Financial optimization calculations	All energy-efficiency projects are screened for payback period and investment amount to ensure that we are finding ways to reduce carbon emissions while optimizing cost efficiency.
Employee engagement	Over the past year, employee engagement has included widespread involvement and outreach performed by our Sustainability Committee and Team and company-wide communication on CO2 emissions and reductions efforts. To support these growing efforts, Garanti now has two employees fully dedicated to sustainability. All employees are now required to receive training on sustainability; for new employees this is part of their

Method	Comment
	orientation. Further, Garanti is in the process of selecting “sustainability representatives” from all bank departments and each bank branch to support all sustainability efforts as needed. Lastly, Garanti is also in the process of creating an internal communications strategy for sustainability, which will include climate change.

Further Information

Page: 4. Communication

4.1
Have you published information about your company’s response to climate change and GHG emissions performance for this reporting year in other places than in your CDP response? If so, please attach the publication(s)

Publication	Page/Section Reference	Identify the attachment
In annual reports (underway) – previous year attached	13, 19, 35, 96, 97, 102, 122	Garanti 2011 Annual Report (English)
In voluntary communications (underway) – previous year attached	3, 27	Garanti 2010 Sustainability Review (Turkish)
In voluntary communications (underway) – previous year attached	3	Garanti 2011 Q3 Stockwatch (English)
In voluntary communications (underway) – previous year attached	1	Garanti 2011 Corporate Profile, Sustainability & Governance Section (English)
In voluntary communications (underway) – previous year attached	1, 2	Garanti 2011 Press Releases Compilation (Turkish)

Further Information

Attachments

https://www.cdproject.net/Sites/2012/29/21129/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Garanti 2011 Corporate Profile Sustainability and Governance Section (English).pdf
https://www.cdproject.net/Sites/2012/29/21129/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Garanti 2011 Annual Report English.pdf
https://www.cdproject.net/Sites/2012/29/21129/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Garanti 2010 Sustainability Review (Turkish).pdf
https://www.cdproject.net/Sites/2012/29/21129/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Garanti 2011 Press Releases Compilation (Turkish).pdf
https://www.cdproject.net/Sites/2012/29/21129/Investor CDP 2012/Shared Documents/Attachments/InvestorCDP2012/4.Communication/Garanti 2011 Q3 Stockwatch (English).pdf

Module: Risks and Opportunities [Investor]

Page: 2012-Investor-Risks&Opps-ClimateChangeRisks

5.1
Have you identified any climate change risks (current or future) that have potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

5.1a
Please describe your risks driven by changes in regulation

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
CAPTS	Cap and trade schemes	Turkey seeks to join the European emissions trading scheme (ETS) by 2019. In preparation for this, in April 2012, Turkey passed a new regulation that will require companies from energy-intensive sectors to monitor, report and verify their CO2 emissions. While ETS would not apply directly to Garanti, it could indirectly impact the company in at least two ways: (1) by imposing new demands on loan recipients, especially for project	Increased operational cost	6-10 years	Indirect (Client)	Virtually certain	Medium-high

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
		finance, which could impact project performance and ability to repay and (2) by leading to an increase in the cost of energy or energy-intensive materials.					
CARBO	Carbon taxes	Use of a carbon tax could be used to support any emissions reduction target resulting from Turkey's ratification of the Kyoto Protocol, especially if Turkey later decides to abandon the attempt to join the ETS. It is expected that such a development would also impact the company in the same two ways as a cap and trade scheme: (1) by imposing new demands on loan recipients, especially for project finance, which could impact project performance and ability to repay and (2) by leading to an increase in the cost of energy or energy-intensive materials.	Increased operational cost	6-10 years	Indirect (Client)	Unlikely	Medium-high
BUILD	Fuel/energy taxes and regulations	Turkey's Regulation on Energy Performance in Buildings came into force in December of 2009. As of January 2011, all qualifying new buildings must meet minimum design requirements for energy efficiency. This law is expected to apply to new Garanti office buildings, for example our Pendik Campus which will open in 2013.	Increased operational cost	Current	Direct	Virtually certain	Low-medium
EELAW	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. For buildings of a certain size or energy consumption level, this law will require designation of a building energy manager and submission of an annual report on energy consumption to the Directorate General of Electricity Works.	Increased operational cost	Current	Direct	Virtually certain	Low

5.1b

Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

CAPTS (CAP AND TRADE) AND CARBO (CARBON TAX)

i. Due to significant uncertainties and complexities involved, Garanti has not attempted to estimate the potential impact of a cap and trade scheme or carbon tax on loan performance. However, we do believe that such regulation could increase energy prices by as much as 5%, on top of any market-based price escalation, which would also increase our operational expenses.

ii. In anticipation of such climate related regulations, Garanti already includes potential future carbon taxes in financial modeling and projections of thermal power plant projects to ensure that they would still fulfill their financial obligations. Additionally, Garanti is in the process of developing a more comprehensive approach to analyze each project against specific environmental and social criteria. Further, to insulate from price increases, Garanti has numerous energy efficiency projects underway across its operations, including lighting projects, making its new technology campus LEED-certified, virtualization of data servers and travel reduction through e-learning.

iii. Inclusion of carbon tax into project performance evaluations has been built into existing procedures. As such, there is no increase in cost associated with this action. To upgrade our project risk assessment procedures, we have worked with an outside consultant for over one year. To increase operational energy efficiency, over the past year, we have invested roughly TRY 2,000,000. Further, for our new company technology campus, we expect to pay a roughly 2% increase to meet LEED-certification, which is expected to drive significant carbon reductions.

BUILD (REGULATION ON ENERGY PERFORMANCE IN BUILDINGS)

i. As we already build new facilities to achieve energy-efficiency savings, we would expect this law to impose negligible additional costs. Energy-efficiency requirements typically impose a maximum 2% increase in traditional building costs.

ii. Garanti expects to exceed the design requirements of this law for new buildings based solely on ability to generate attractive costs savings. It is expected that this will include virtually all aspects of building design, structural orientation and thermal envelope, selection of building materials and systems for heating, cooling, lighting and ventilation. For example, the bank expects to achieve certification under the Leadership in Energy Efficiency and Design (LEED) program for its planned Pendik Campus, which will open in 2013.

iii. Building to LEED-certification or similar energy-efficiency performance imposes a roughly 2% increase over traditional building. However, as suggested previously, these investments typically pay for themselves in less than 3 years.

EELAW (ENERGY EFFICIENCY LAW)

i. The specific mechanisms for enforcement of this regulation are still being considered. However, we anticipate that failure to comply could bring administrative action. Garanti does not have the ability to estimate the size of any such corrective action. In any event the bank intends to be in full compliance with this and any other applicable regulation.

ii. Garanti is in the process of identifying those facilities to which this regulation will apply and is creating a training program to create certified energy managers where necessary.

iii. To date, these efforts have been built into existing functions. Thus, we have experienced no additional cost beyond a small percent of existing employee time. Further, Garanti does not anticipate needing to hire additional employees for this effort. Thus, we perceive no real cost associated with meeting this risk.

5.1c
Please describe your risks that are driven by change in physical climate parameters

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
WEATR	Change in precipitation extremes and droughts	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), severe storms, severe heat and drought. 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 or cause critical damage to key facilities, such as headquarters and Garanti's data management centers. Further, extreme heat/cold or changing temperature patterns could raise cooling/heating costs.	Increased operational cost	Current	Direct	More likely than not	Low-medium
HEATR	Change in mean (average) temperature	A mean increase in heat (during summer) and/or cold (during winter) could meaningfully increase cooling and/or heating costs.	Increased operational cost	Current	Direct	More likely than not	Low-medium
PRECR	Change in precipitation pattern	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.	Reduced demand for goods/services	Unknown	Direct	About as likely as not	Medium

5.1d
Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; and (iii) the costs associated with these actions

WEATR (EXTREME WEATHER AND DROUGHTS)
i. 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 the risk associated with weather-related interruption of service but considers it significant and is taking numerous steps to decrease the likelihood and severity of occurrence.
ii. 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. All bank offices and branches carry standard insurance policies that typically cover weather-related incidents/disaster, including flooding.
iii. Garanti considers the efforts described here as strategic in nature and, therefore, does not wish to reveal associated investment expenditures.
HEATR (CHANGE IN MEAN TEMPERATURE)
i. Due to inherent uncertainty, Garanti has not estimated the potential increases in heating and cooling costs, but believes they could be as high as 5% of existing costs if no energy efficiency measures are taken.
ii. As part of a wider campaign to reduce operational expenses, Garanti has undertaken numerous efforts aimed at reducing energy use at new and existing facilities. For existing facilities, these include changes in lighting, mechanical

systems, air conditioning, information technology and more. For new facilities, Garanti intends to build to industry-leading standards for energy efficiency. For example, Garanti's new Pendik Technology Campus, which will open in 2013, is being built to meet LEED-certification.
iii. Garanti has invested roughly TRY 2,000,000 in energy efficiency efforts, which could insulate the company from energy costs associated with increased heating and cooling needs. For the Pendik Technology Campus, and future new buildings, Garanti expects to pay a premium of about 2% for increased energy and environmental performance.
PRECR (CHANGE IN PRECIPITATION PATTERN)
i. Due to the high degree of associated uncertainty, Garanti has not attempted to quantify the size of such risks.
ii. Nevertheless, the bank believes management of these risks could be important for future operations. As such, Garanti's Sustainability Committee will be considering what, if any actions, to take.
iii. For now, Garanti will simply be strategizing potential actions to take. As such, there are no additional costs imposed beyond existing measures to assemble and operate the Sustainability Committee and fees for advisory services.

5.1e
Please describe your risks that are driven by changes in other climate-related developments

ID	Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
REPUT	Reputation	Stakeholders increasingly expect companies, especially banks, to proactively address climate change issues. Garanti believes that 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 loans that could be associated with high greenhouse gas emissions or flashpoint issues capable of generating significant negative publicity, such as an oil spill. Failure to meet these expectations could damage reputation resulting in a loss of investor support and customer loyalty, among other challenges.	Reduced demand for goods/services	1-5 years	Direct	About as likely as not	Medium-high
SOCIO	Fluctuating socio-economic conditions	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. 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. This could translate to inability to repay loans for banking customers or decreased demand for banking services.	Reduced demand for goods/services	Unknown	Indirect (Client)	About as likely as not	High

5.1f
Please describe (i) the potential financial implications of the risk before taking action; (ii) the methods you are using to manage this risk; (iii) the costs associated with these actions

REPUT (REPUTATION-BASED RISK)
i. Due to the inherent uncertainty involved, Garanti has not attempted to quantify economic implications of reputation-based risk. Nevertheless, the bank considers this a critical issue to manage. Reputation-based concerns are a key driver behind all current and emerging climate change and other environmental activities.
ii. Driven in large part to ensure that Garanti retains a reputation for excellence and leadership in the Turkish market, the bank has and will continue to institute comprehensive efforts to address climate change. These include establishment of a Sustainability Committee and Team to manage climate change issues, development of a comprehensive environmental management plan (currently in progress), communication of climate change activities (most recently in Garanti's Annual Report), participation in CDP, striving to exceed the company-wide carbon reduction goal, strengthening environmental criteria in our project finance activities and the launch of numerous specific projects under the above structures. Individual carbon reduction projects are discussed throughout this submission and include branch and office energy

efficiency projects, provision of electronic transaction options to reduce customer footprint, efforts to reduce employee commuting and travel, and the financing of renewable energy projects.
iii. Investments related to the efforts described above include over TRY 2,000,000 focused on operational energy efficiency, two full-time FTEs devoted to sustainability, more than EUR 100 million in loans for small and medium energy-efficiency and renewable energy projects and over $US 300 million in loans for wind farms.
SOCIO (FLUCTUATING SOCIO-ECONOMIC CONDITIONS)
i. Due to the inherent uncertainty involved, Garanti has not attempted to quantify potential lost revenue from climate-driven loan defaults or reduced demand. Nevertheless, the bank considers such concerns critical to future business.
ii. There is nothing Garanti (or any other company acting in isolation) can do to reduce the likelihood of the physical impacts of global warming or associated regulation and their impact on community or sector viability. Garanti is, however, diversifying its products and services to prepare for transition to a low-carbon economy, something that could potentially ease the burden on heavily impacted sectors and help the bank gain new revenue that could compensate for climate-related losses.
iii. In 2011, Garanti made over EUR 100 million in loans for small and medium-sized energy efficiency and renewable energy projects and over US$ 300 million in loans for wind farms.

Further Information

Page: 2012-Investor-Risks&Opps-ClimateChangeOpp

6.1
Have you identified any climate change opportunities (current or future) that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

6.1a
Please describe your opportunities that are driven by changes in regulation

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
CAPOP	Cap and trade schemes	Turkey seeks to join the European emissions trading scheme (ETS) by 2019. In preparation for this, in April 2012, Turkey passed a new regulation that will require companies from energy-intensive sectors to monitor, report and verify their CO2 emissions. While ETS would not apply direct to Garanti, it could indirectly drive opportunities for the company in at least two ways: (1) accelerating the demand for renewable energy and energy-efficiency projects, which the company could finance and (2) present new opportunities for the bank to act as a broker of carbon and provide related services.	New products/business services	6-10 years	Indirect (Client)	About as likely as not	Medium-high
TAXOP	Carbon taxes	Use of a carbon tax could be used to support any emissions reduction target resulting from Turkey's ratification of the Kyoto Protocol, especially if Turkey later abandons efforts to join ETS. As with a cap and trade scheme, this could	New products/business services	6-10 years	Indirect (Client)	About as likely as not	Medium-high

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact
		indirectly impact the bank by accelerating the demand for renewable energy and energy efficiency projects, which the bank could finance.					
ENROP	Fuel/energy taxes and regulations	Turkey's Regulation on Energy Performance in Buildings came into force in December of 2009. As of January 2011, all qualifying new buildings must meet minimum design requirements for energy efficiency. This will likely spur increased investment in energy-efficiency projects, which should present new opportunities for financing.	New products/business services	Current	Indirect (Client)	Virtually certain	Medium-high

6.1b
Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

CAPOP (CAP AND TRADE SCHEMES) AND TAXOP (CARBON TAXES)
i. Due to the inherent uncertainty involved, we have not attempted to formally estimate associated financial implications of opportunities presented by future participation in ETS or a carbon tax. However, we would expect resulting finance opportunities plus carbon trading opportunities would represent TRY hundreds of millions.
ii. Garanti has already begun to position as a leader in the finance of renewable energy and energy-efficiency projects, ranging from large infrastructure-style projects to facility-specific investments for small and medium enterprises. Additionally, Garanti now monitors legal developments related to climate change that could pave the way for a role in emissions trading.
iii. To date, our primary cost has been training of key staff for existing green lending opportunities and participation of key individuals in our Sustainability Committee. As these roles have been built into existing responsibilities, we have not estimated associated costs. To maintain our leadership position in green market opportunities, Garanti provided over EUR 100 million to small and medium sized energy-efficiency and renewable energy projects and over US$ 300 million for wind farms.
ENROP (FUEL/ENERGY TAXES AND REGULATIONS)
i. Given remaining uncertainties about application and enforcement of the law as well as any resulting market, we have not attempted to formally estimate associated new business opportunities. However, we believe these opportunities could represent hundreds of millions of Turkish lira.
ii. As described above, Garanti has already begun to position as a leader in meeting the needs of a market increasingly interested in finance for energy-efficiency and renewable energy projects. For example, through the TURSEFF and Mid-SEFF programs, described in more detail for question 3.2a) we have now supported a wide collection of small- and medium-sized energy-efficiency and renewable energy projects. These projects can include rooftop solar heating systems, building insulation, double-glazing, rehabilitation of heating and power systems, and use of energy-efficient materials.
iii. To date, the primary cost associated with participation in the TURSEFF and Mid-SEFF programs has been training of loan officers and other staff. As these efforts are built into existing roles, we have not attempted to put an amount to this cost. In 2011, we approved EUR 23 million in TURSEFF loans and EUR 83 million in Mid-SEFF loans.

6.1c
Please describe the opportunities that are driven by changes in physical climate parameters

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
PHYOP	Other physical climate opportunities	Physical impacts on existing settlements could necessitate new infrastructure projects, creating finance opportunities. However, there is meaningful uncertainty on timing of this development.	Increased demand for existing products/services	Unknown	Indirect (Client)	Unknown	High

6.1d
Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

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, 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. 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. Given the high degree of uncertainty and what would likely be a relatively long timeframe surrounding this occurrence, we have not attempted to estimate associated financial implications nor have we begun to take specific action beyond our efforts to stay abreast of climate change issues.

6.1e
Please describe the opportunities that are driven by changes in other climate-related developments

ID	Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact
REPOP	Reputation	By proactively addressing climate change and other social and environmental concerns, we can exceed stakeholder expectations and enhance our reputation. This could produce numerous benefits to our business.	Increased demand for existing products/services	Current	Direct	Very likely	Medium-high
SAVOP	Other drivers	By formalizing our approach to carbon emissions management, we enhance our ability to strategically reduce energy costs.	Reduced operational costs	Current	Direct	Virtually certain	Medium

6.1f
Please describe (i) the potential financial implications of the opportunity; (ii) the methods you are using to manage this opportunity; (iii) the costs associated with these actions

REPOP (REPUTATION-BASED OPPORTUNITIES)
i. By meeting and exceeding stakeholder concerns for performance, Garanti can differentiate itself with investors and customers who increasingly care about this topic. Additionally, the company believes that by becoming a proactive on sustainability topics (especially climate change), it becomes a more desirable place to work. This can meaningfully impact our ability to retain and attract talent. Due to the inherent uncertainties involved, there has been no attempt to quantify reputation-based opportunities.
ii. Driven in large part to ensure that Garanti retains a reputation for excellence and leadership in the Turkish market, the bank has and will continue to institute comprehensive efforts to address climate change. These include establishment of a Sustainability Committee and Team to manage climate change issues, development of a comprehensive environmental management plan (currently in progress), communication of climate change activities (most recently in Garanti's Annual Report), participation in CDP, striving to exceed the company-wide carbon reduction goal, strengthening environmental criteria in our project finance activities and the launch of numerous specific projects under the above structures. Individual carbon reduction projects are discussed throughout this submission and include branch and office energy efficiency projects, provision of electronic transaction options to reduce customer footprint, efforts to reduce employee commuting and travel, and the financing of renewable energy projects.
iii. Investments related to the efforts described above include roughly TRY 2,000,000 focused on operational energy efficiency, two full-time FTEs devoted to sustainability, more than EUR 100 million in loans for small and medium energy-efficiency and renewable energy projects and over $US 300 million in loans for wind farms.
SAVOP (INCREASED ENERGY EFFICIENCY OF OPERATIONS)
i. Accelerated by our efforts to reduce CO_2 emissions, we estimate that we have the ability to reduce expected energy costs by 5 to 10% by the end of 2012 and by as much as 20% or more over the next 5 years.
ii. Garanti has undertaken numerous efforts aimed at reducing energy use at new and existing facilities. For existing facilities, these include changes in lighting, mechanical systems, air conditioning, information technology and more. For new facilities, Garanti intends to build to industry-leading standards for energy efficiency. For example, Garanti's new Pendik Technology Campus, which will open in 2013, is being build to meet LEED-certification.
iii. In 2011, Garanti invested roughly TRY 2,000,000 in energy-efficiency projects across its operations. For its new LEED-certified facility, opening in 2013, we are assuming a total price premium of roughly 2%.

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading [Investor]

Page: 7. Emissions Methodology

7.1
Please provide your base year and base year emissions (Scopes 1 and 2)

Base year	Scope 1 Base year emissions (metric tonnes CO2e)	Scope 2 Base year emissions (metric tonnes CO2e)
Fri 01 Jan 2010 - Fri 31 Dec 2010	14108.97	67599.65

7.2

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

Please select the published methodologies that you use
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

7.2a
If you have selected "Other", please provide details below

7.3
Please give the source for the global warming potentials you have used

Gas	Reference
CO_2	IPCC Second Assessment Report (SAR - 100 year)
CH_4	IPCC Second Assessment Report (SAR - 100 year)
N_2O	IPCC Second Assessment Report (SAR - 100 year)
Other: HCFC-22	IPCC Second Assessment Report (SAR - 100 year)
Other: HFC-134a	IPCC Second Assessment Report (SAR - 100 year)
Other: R407a	Other: ASHRAE Standard 34
Other: R410a	Other: ASHRAE Standard 34
Other: R404	Other: ASHRAE Standard 34

7.4
Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data

Fuel/Material/Energy	Emission Factor	Unit	Reference
Diesel/Gas oil	2.68	kg CO2e per litre	World Resources Institute: Emission Factors Compilation from Cross-Sector Tools. Version 1.0. July 2009
Motor gasoline	2.34	kg CO2e per litre	World Resources Institute: Emission Factors Compilation from Cross-Sector Tools. Version 1.0. July 2009
Natural gas	1.89	Other: kg CO2e per m3	World Resources Institute: Emission Factors Compilation from Cross-Sector Tools. Version 1.0. July 2009
Lignite	1.21	metric tonnes CO2e per metric tonne	World Resources Institute: Emission Factors Compilation from Cross-Sector Tools. Version 1.0. July 2009
Distillate fuel oil No 2	2.69	metric tonnes CO2e per m3	World Resources Institute: Emission Factors Compilation from Cross-Sector Tools. Version 1.0. July 2009
Electricity	601.3	kg CO2e per MWh	WWF-Turkey 2012/Gold Standard Validation Report
Other: Business Air Travel: Long-haul	.12	Other: kg CO2e per passenger km	EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport. May 2008.
Other: Business Air Travel: Medium-haul	.14	Other: kg CO2e per passenger km	EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport. May 2008.
Other: Business Air Travel: Short-haul	.17	Other: kg CO2e per passenger km	EPA Climate Leaders: Optional Emissions from Employee Commuting, Business Travel and Product Transport. May 2008.

Further Information

Page: 8. Emissions Data - (1 Jan 2011 - 31 Dec 2011)

8.1
Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

8.2a
Please provide your gross global Scope 1 emissions figure in metric tonnes CO2e

16981.38

8.3a
Please provide your gross global Scope 2 emissions figure in metric tonnes CO2e

70350.80

8.4

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

Yes

8.4a
Please complete the table

Source	Scope	Explain why the source is excluded
A portion of refrigerants	Scope 1	Due to difficulty collecting reliable data and limited impact on our overall carbon footprint, estimation of refrigerant leakage from air conditioning systems has been limited to our largest properties. Therefore, we have excluded such estimation for bank branches and other offices.

8.5
Please estimate the level of uncertainty of the total gross global Scope 1 and Scope 2 figures that you have supplied and specify the sources of uncertainty in your data gathering, handling, and calculations

Scope 1 emissions: Uncertainty range	Scope 1 emissions: Main sources of uncertainty	Scope 1 emissions: Please expand on the uncertainty in your data	Scope 2 emissions: Uncertainty range	Scope 2 emissions: Main sources of uncertainty	Scope 2 emissions: Please expand on the uncertainty in your data
More than 2% but less than or equal to 5%	Data Gaps Assumptions Data Management	Uncertainty for scope 1 emissions comes from two potential sources: use of estimation techniques to fill data gaps and (in the case of vehicle data) potential data management challenges. For refrigerant leakage (5.6% of total scope 1 emissions), 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 (provided by Climate Savers, US EPA). Estimation using this technique was assumed to have an activity margin of error of 50%. For on-site use of natural gas at facilities, estimates were used to fill data gaps for roughly 5% of all properties (totaling 6.0% of all scope 1 emissions). This estimation was assumed to have an activity margin of error of 25%. For on-site use of diesel fuel (8.9% of scope 1 emissions), estimates were used to fill data gaps for roughly 5% of all properties (totaling <1% of scope 1 emissions). This estimation is also assumed to have an activity margin of error of 25%. For fuel use by company vehicles (53% of scope 1 emissions), we assume an activity margin of 10% associated with data management challenges. All other sources are believe to be based on complete and accurate data. Using a sum of squares method, Garanti estimates total uncertainty for scope 1 emissions at 4.9%.	Less than or equal to 2%	Data Gaps Assumptions	Facilities, which include branches, offices and other buildings, accounted for 91% of total electricity use for 2011. For all but 3% of this facility electricity use, we were able to rely on actual kwh figures. The missing 3% was estimated based on average kwh usage per m2 for like properties. For this estimation, we assumed an activity margin of error of 25%. The remaining electricity use was for ATMs (9% of the total). For this, we relied on estimation using cost data and assigned an activity margin of error of 10%. Using a sum of squares method, Garanti estimates level of uncertainty at 1.3%.

8.6
Please indicate the verification/assurance status that applies to your Scope 1 emissions

Not verified or assured

8.7
Please indicate the verification/assurance status that applies to your Scope 2 emissions

Not verified or assured

8.8
Are carbon dioxide emissions from the combustion of biologically sequestered carbon (i.e. carbon dioxide emissions from burning biomass/biofuels) relevant to your company?

No

Further Information

Page: 9. Scope 1 Emissions Breakdown - (1 Jan 2011 - 31 Dec 2011)

9.1
Do you have Scope 1 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

9.2
Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By GHG type

9.2c
Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 metric tonnes CO2e
CO2	15982
CH4	17
N2O	36
HFCs	946

Further Information

Page: 10. Scope 2 Emissions Breakdown - (1 Jan 2011 - 31 Dec 2011)

10.1
Do you have Scope 2 emissions sources in more than one country or region (if covered by emissions regulation at a regional level)?

No

10.2
Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By facility

10.2b
Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2 metric tonnes CO2e
Branches	35320
Offices	28424
ATMs	6608

Further Information

Page: 11. Emissions Scope 2 Contractual

11.1
Do you consider that the grid average factors used to report Scope 2 emissions in Question 8.3 reflect the contractual arrangements you have with electricity suppliers?

Yes

11.2
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: 12. Energy

12.1
What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

12.2
Please state how much fuel, electricity, heat, steam, and cooling in MWh your organization has consumed during the reporting year

Energy type	MWh
Fuel	72917
Electricity	116998
Heat	0
Steam	0
Cooling	0

12.3
Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Diesel/Gas oil	19616
Natural gas	32834
Lignite	362
Distillate fuel oil No 2	3461
Motor gasoline	16644

Further Information

Page: 13. Emissions Performance

13.1
How do your absolute emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

13.1a
Please complete the table

Reason	Emissions value (percentage)	Direction of change	Comment
Change in output	7.0	Increase	Garanti's bank branches, the predominant piece of the company's carbon footprint, grew by roughly 7% in 2011. Excluding carbon reduction efforts and any other factors, the bank would expect this to be a good predictor for total growth in company emissions.
Change in physical operating conditions	1.6	Increase	Garanti saw a significant spike in 2011 in use of heating fuel across its properties which is attributed to unseasonably cold winter weather.
Other: Fleet-related data management challenges	1.2	Increase	Garanti saw a meaningful spike in fuel use data collected for its fleet of vehicles in 2011, considerably more than expected from year-on-year growth. The reason we determined for the difference is due to incomplete data for our 2010 base year resulting in undercounting and, as a result, creating an artificial increase for 2011. However, we cannot be sure that is the only reason for the difference.
Emissions reduction activities	3.5	Decrease	Garanti's numerous energy efficiency and carbon reduction efforts described previously in this response are believed to have reduced total absolute emissions by over 3,000 tons in 2011.

13.2
Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
0.000010	metric tonnes CO2e	unit total revenue	4.2	Increase	In 2011, revenue increased by 2.5%, less than our total physical footprint, which grew by roughly 7%. As such, using revenue as the denominator inflates apparent relative emissions. As a bank, we consider total consolidated assets a more useful denominator,

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
					which is why it has been selected for our company-wide CO2 reduction goal.

13.3
Please describe your gross combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per full time equivalent (FTE) employee

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
5.21	metric tonnes CO2e	FTE Employee	6.3	Increase	Although we grew total number of branches by roughly 7% (and increased both total assets under management and revenue), we actually did so with only a very small increase in the number of employees, which is consistent with our increasing reliance on low-impact internet- and mobile-based delivery channels. Thus, this metric artificially inflates CO2e.

13.4
Please provide an additional intensity (normalized) metric that is appropriate to your business operations

Intensity figure	Metric numerator	Metric denominator	% change from previous year	Direction of change from previous year	Reason for Change
534.1	metric tonnes CO2e	Other: billion (currency) total assets	10.6	Decrease	Garanti continues to meaningfully grow its total assets at a pace far greater than growth of its physical footprint. We attribute this to our emphasis of alternative delivery channels (internet banking, mobile banking, and next generation ATMs that provide full service) for which Garanti is the leader in Turkey. These delivery channels greatly reduce energy and other resources required to meet customers needs while greatly enhancing customer satisfaction. To be consistent with questions 13.2 and 13.3, this intensity metric is for scope 1 and 2 emissions only.

Further Information

Page: 14. Emissions Trading

14.1
Do you participate in any emission trading schemes?

No, and we do not currently anticipate doing so in the next two years

14.2
Has your company originated any project-based carbon credits or purchased any within the reporting period?

No

Further Information

Page: 2012-Investor-Scope 3 Emissions

15.1

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

Sources of Scope 3 emissions	metric tonnes CO2e	Methodology	If you cannot provide a figure for emissions, please describe them
Business travel	2632	The calculation was made using EPA passenger emissions factors and flight data captured both from Garanti's travel agent and, for those flights not taken through the travel agent, estimated based on historical data. 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 (<483 km)- 0.17 kg CO2e/ passenger-km; Medium-Haul (>=483 km and <1127 km)- 0.14 kg CO2e/ passenger-km; and Long-Haul (>1127 km)- 0.12 kg CO2e/ passenger-km from EPA Climate Leaders Optional Emissions from Employee Commuting, Business Travel and Product Transport (June 2008). NOTE: Garanti has recalculated 2010 emissions from air travel based on more complete data (which now captures flights that were not taken through Garanti's primary travel agency). 2010 emissions were reported last year as 1,324 tons CO2e. The revised 2010 figure is 2686 tons CO2e.	

15.2
Please indicate the verification/assurance status that applies to your Scope 3 emissions

Not verified or assured

15.3
Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

15.3a
Please complete the table

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Business travel	Emissions reduction activities	2	Decrease	Through increased use of communications solutions for meetings, trainings and other occurrences, we have managed to reduce total employee air travel, resulting in an absolute reduction in emissions.

Further Information

Module: Sign Off

Page: Sign Off

Please enter the name of the individual that has signed off (approved) the response and their job title

Feride Nagehan Öztürk, Sustainability Supervisor