



BANCA D'ITALIA
EUROSISTEMA

Environment Report 2014



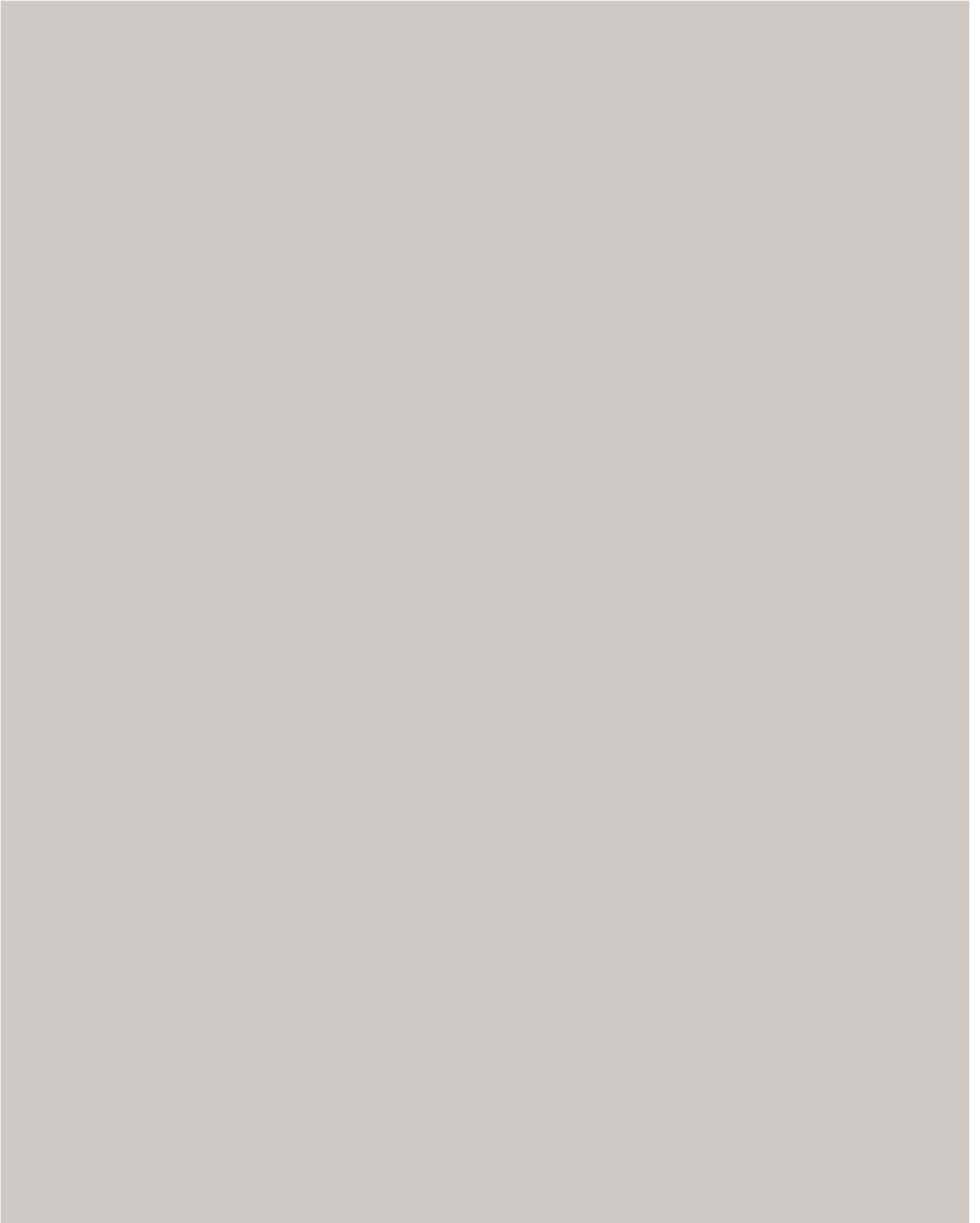
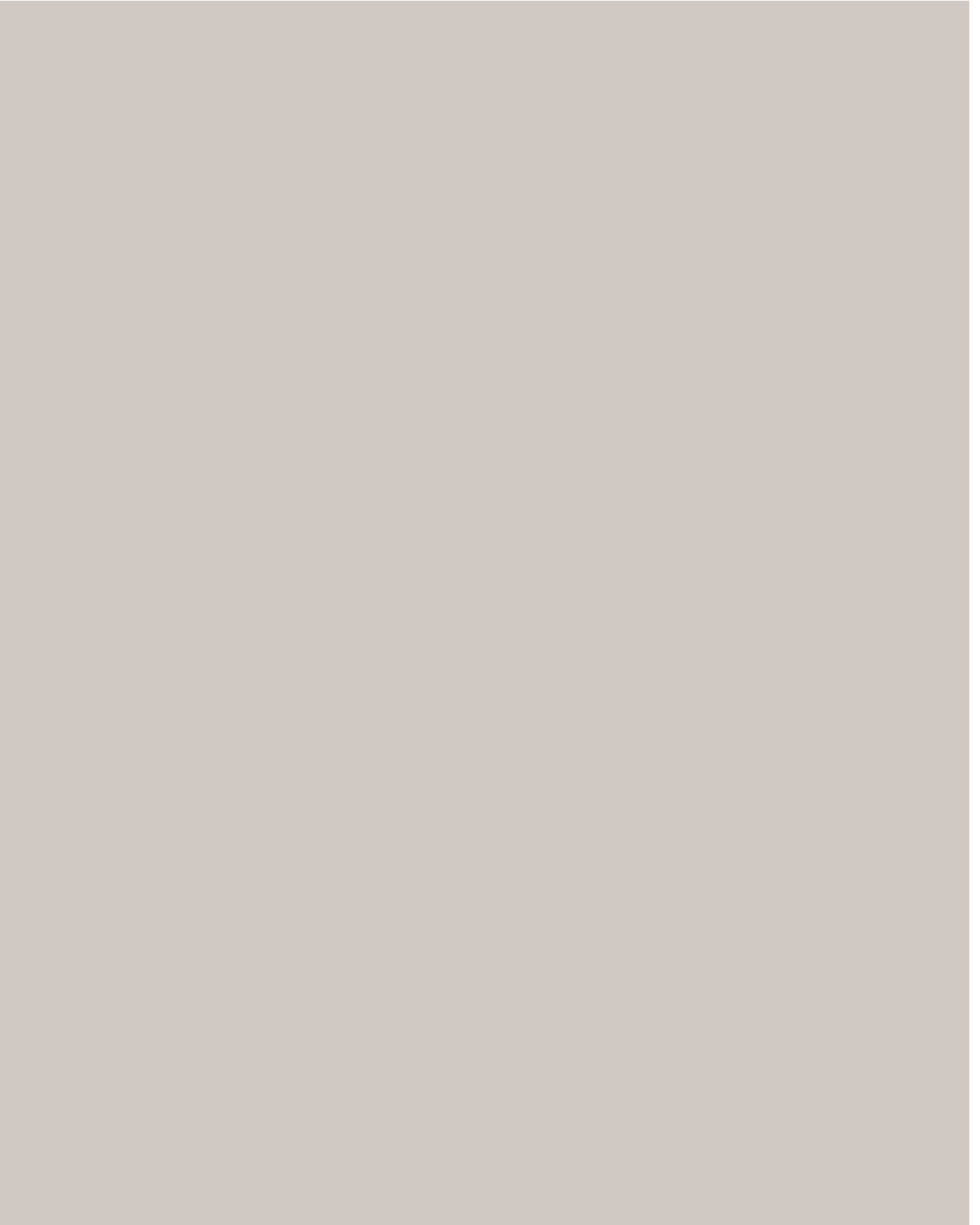


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introduction

The Bank of Italy has been working to reduce its ecological footprint for some years now, especially in sectors such as banknote printing that can have a significant impact on the environment.

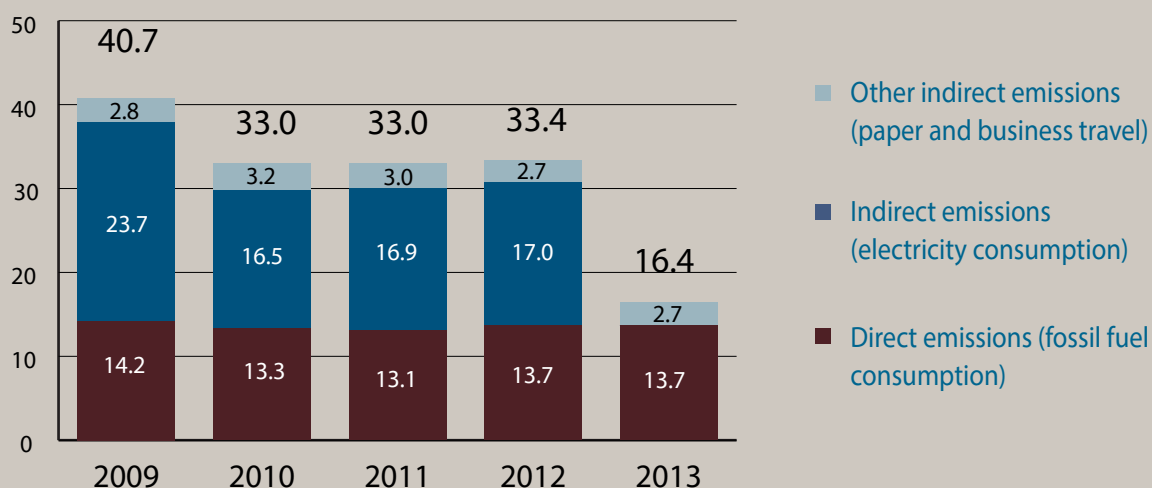
In 2008 the Environmental Policy Document was approved, illustrating the Bank's strategic objectives in this field. Reducing the impact on the environment as part of a broader commitment to social responsibility was one of the objectives of the Bank's Strategic Plan 2011-2013, under which specific initiatives were planned, and for the most part achieved, for the rational use of resources, efficient waste management and sustainable mobility.

This edition of the Environment Report, in line with the previous years' reports published on the Bank's website, gives an account of the Bank's environmental impact, and incorporates information from its 'Report on the Operations and Activities of the Bank of Italy'. Environmental impact is measured by means of quantitative indicators, with the aim of giving a complete picture both of the improvements achieved over time and of areas requiring greater attention in the future.

In general, the Bank has a smaller ecological footprint than it had five years ago (Figure 1). In particular, it reduced its CO₂ emissions in 2013 compared with the previous year following the decision to purchase electricity from renewable sources that usually achieve zero-emission ratings.

FIGURE 1

CARBON FOOTPRINT – BANK OF ITALY
Carbon dioxide emissions (thousands of tons of CO₂)



introduction

The data contained in this Report were calculated with reference to the national and international guidelines on the subject and to the Bank's premises listed in the Methodology section on page 22.

100%

The share of electricity from renewable sources in 2013

The Bank is committed to reducing energy consumption, achieving greater energy efficiency and promoting the use of renewable resources. These objectives are followed both through periodic technical interventions to renovate buildings and installations and by adopting organizational measures.

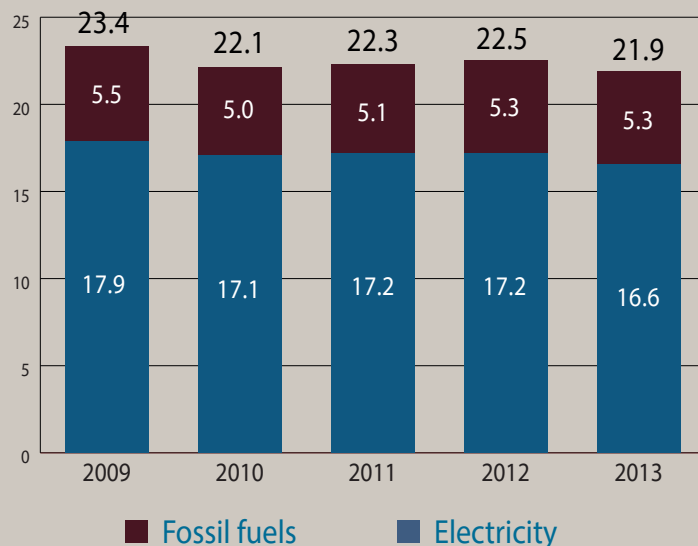
In 2013 energy certificates were obtained for about 80 per cent of the Bank's buildings. The information and data collected under this project will be used to identify targeted actions to reduce consumption. In addition, at the two separate data processing sites managed by the Bank a series of 'islands' - highly energy-efficient units that host the servers - were installed and once they are operating fully, this will reduce electricity consumption but provide the same processing power.

In 2013 the Bank bought its electricity exclusively from certified renewable sources (in 2012 it bought 53 per cent of its energy from such sources). Furthermore, at the Banknotes Directorate, the installation of a new solar photovoltaic system was completed and will begin to produce green energy by the end of 2014. A second solar energy system will also be installed in 2014 at the Donato Menichella Centre for the production of domestic hot water, which will

ENERGY – BANK OF ITALY

FIGURE 2

Total consumption of energy
(thousands of tons of oil equivalent)



energy

-6%

The reduction in tonnes of oil equivalent (TOE) between 2009 and 2013

lead to a saving of about 5,000 cubic metres of methane gas annually.

In February 2013 the Bank took part in Energy Saving Day for the fourth consecutive year, turning off the external lighting of its buildings and raising staff awareness of how small changes in everyday behaviour can save energy and protect the environment.

Energy consumption in the last five years is illustrated in Figure 2 and includes both electricity (for The Bank's office buildings, banknote production plants, and the two data processing centres) and fossil fuels (used almost exclusively to heat the buildings).

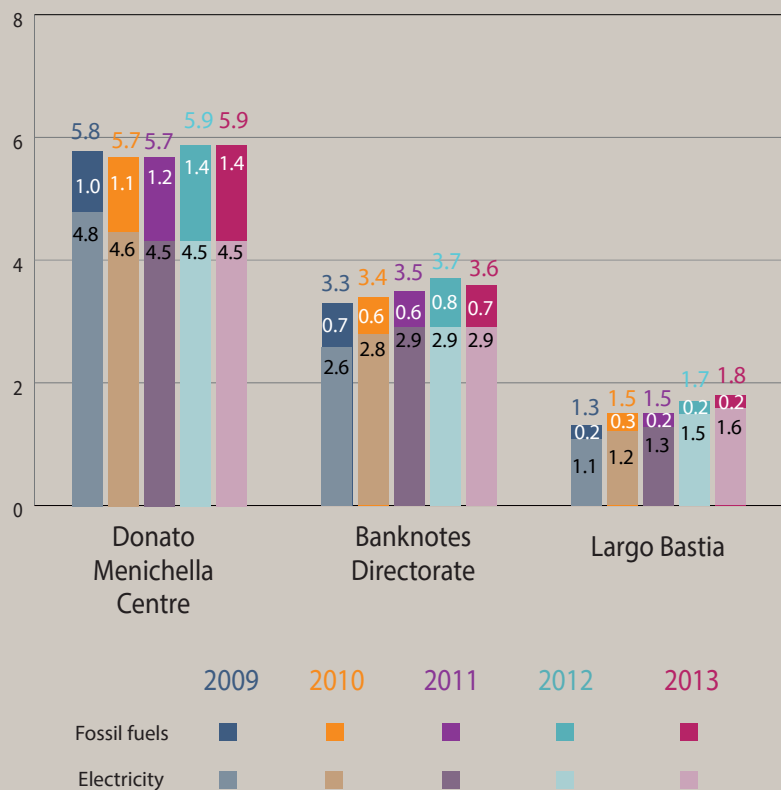
In 2013 electricity consumption was down by about 3.5 per cent from the previous year while the consumption of fossil fuels remained the same.

An analysis of the energy consumption breakdown, given in Figures 3A and

ENERGY

FIGURE 3A

Comparison of energy consumption in the period 2009-2013 (thousands of tons of oil equivalent)



-20%

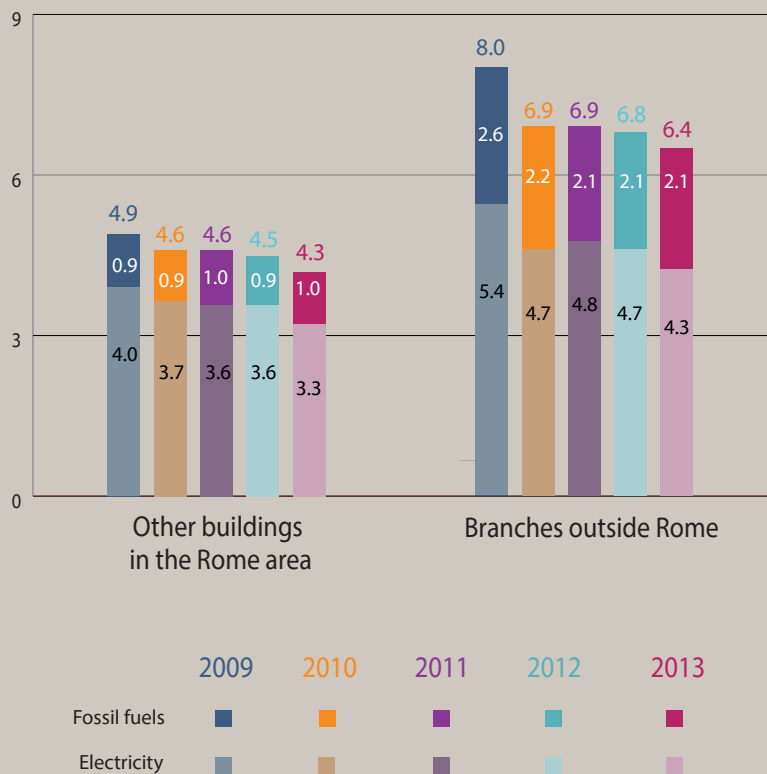
The reduction in energy consumption at the Bank's branches between 2009 and 2013

3B, shows an increase in the consumption of electricity at the Largo Bastia site in Rome, which hosts one of the two data processing centres. The second data processing centre at the Donato Menichella Centre and the banknote printing unit have maintained about the same levels of consumption over the last two years. As regards the remaining buildings in the Rome area and the Bank's branches, which are mainly used for office work, the consumption of fossil fuels for heating has remained basically unchanged in the last four years while there has been a steady reduction in the consumption of electricity.

ENERGY

FIGURE 3B

Comparison of energy consumption in the period 2009-2013 (thousands of tons of oil equivalent)



water

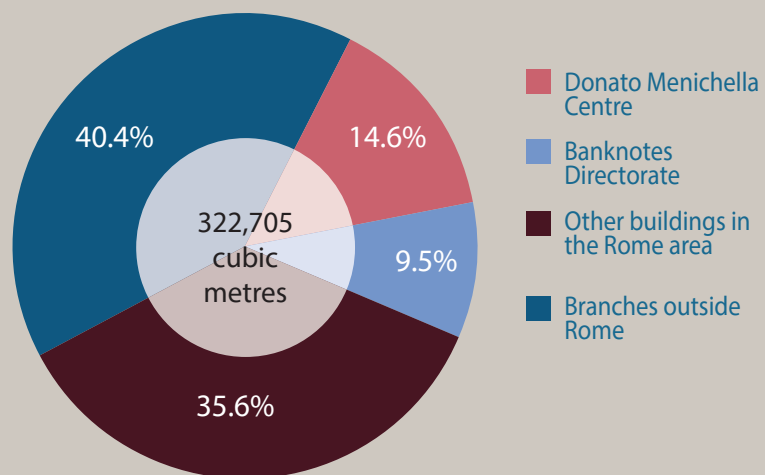
In the Bank's buildings water is used mainly for domestic purposes. When possible, non-potable water is used for irrigating the green areas or for industrial purposes.

In 2013 the Bank consumed about 323,000 cubic metres of potable water, about 4 per cent more than in the previous year. Compared with 2009, potable water consumption was down by about 36 per cent overall.

WATER – BANK OF ITALY
Total consumption of potable water in 2013

FIGURE 4

+4.2%
The increase in the Bank's potable water consumption in 2013 compared with the previous year

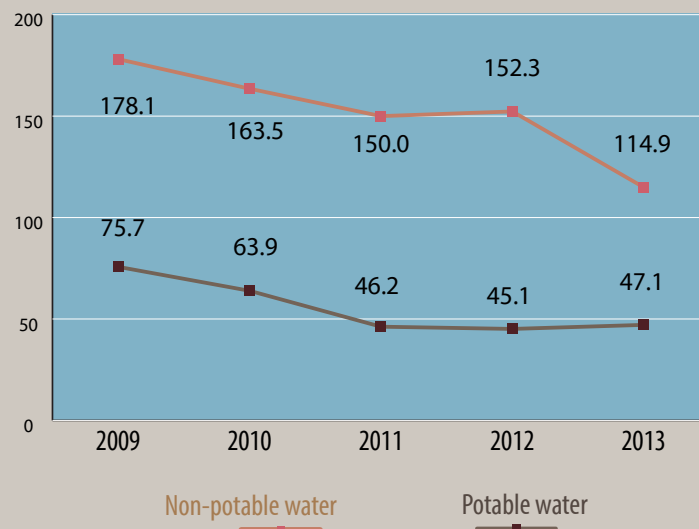


As shown in Figure 4 the banknote production plants (the Banknotes Directorate) and the Donato Menichella Centre together account for just under a quarter of the Bank's potable water consumption.

Figure 5 shows the historical trend in water consumption at the Donato Menichella Centre, where mainly non-potable water is used: from 2009 to today there has been a declining trend in consumption, with the exception of a slight increase in 2013 compared with the previous year.

WATER – DONATO MENICHELLA CENTRE
Consumption of water 2009-2013
(thousands of cubic metres)

FIGURE 5



paper

25.5

The number of A4 sheets of paper used on average each day by a Bank employee

The Bank produces a considerable amount of documents, such as publications, print-outs and external correspondence. In recent years there have been various initiatives to trim processes and digitize paper documents. With the digitized document management system, which since 2009 includes electronic signatures and certified email, all internal correspondence has been digitized and is now also the norm for external correspondence (92 per cent in 2013). Further reductions in paper consumption are expected following the adoption of new applications for staff administration and expenditure management. Work has also continued on completing the electronic treasury service, thanks to which, since 2014 the documentation for payments to the State Balance Sheet have been digitized, thereby saving about 30 tonnes of CO₂ each year. At the same time, there has been a progressive reduction in the print runs of the Bank's publications, which have been systematically made available on its website. Lastly, with the aim of reducing the amount of paper used in weight terms, since May 2014 the Bank has been purchasing packs of paper weighing 75 grams per square metre rather than the standard weight of 80 grams.

-11%

The reduction in the supply of paper for office use between 2009 and 2013

PAPER – ROME AREA
Supply of A3 and A4 paper for office use
(thousands of kilograms)

FIGURE 6

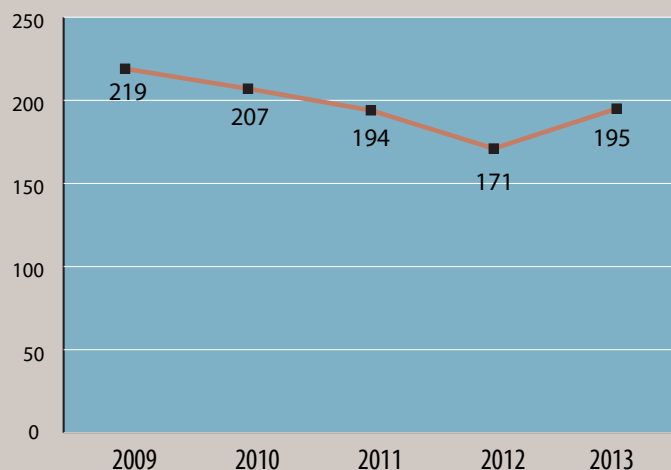


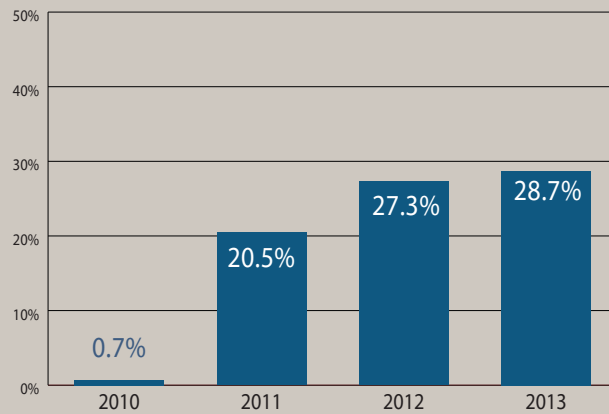
Figure 6 shows the downward trend of paper purchased in packs for office use in the last five years: the slight increase in 2013 is probably linked to the creation of larger stocks.

-41.5%

The reduction in the supply of paper used for printing the Bank's publications between 2009 and 2013

PAPER – BANK OF ITALY
Recycled paper as a percentage of total paper supplied

FIGURE 7

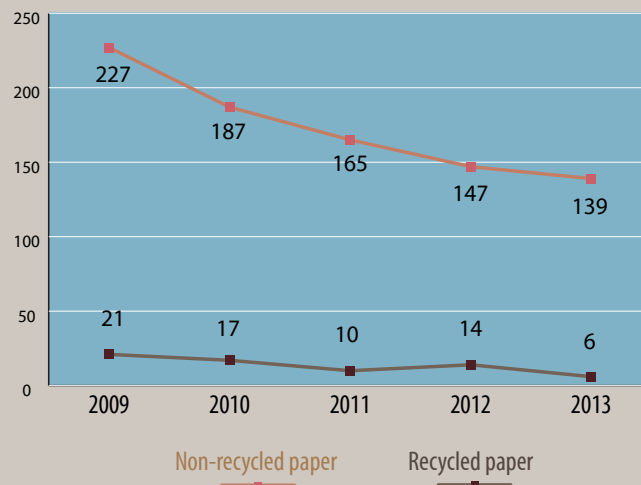


Besides the reduction in paper consumption, for some years now it has been possible to use packs of recycled paper made entirely from recycled cellulose fibres with ecological quality marks that guarantee that very high environmental production standards have been observed. The percentage of recycled paper bought in 2013 was 29 per cent of the total (Figure 7). In the Bank's branches this percentage averaged more than 40 per cent.

In 2013, about 145,000 kilograms of paper were used for the Bank's publications overall, around 41 per cent less than in 2009 (Figure 8).

PAPER – THE BANK'S PRINTING AND PUBLISHING DIVISION
Paper used for publications (thousands of kilograms)

FIGURE 8



waste

In the last few years various initiatives were also taken both to reduce at source the quantity of waste being produced and to promote recycling and waste-to-energy processing.

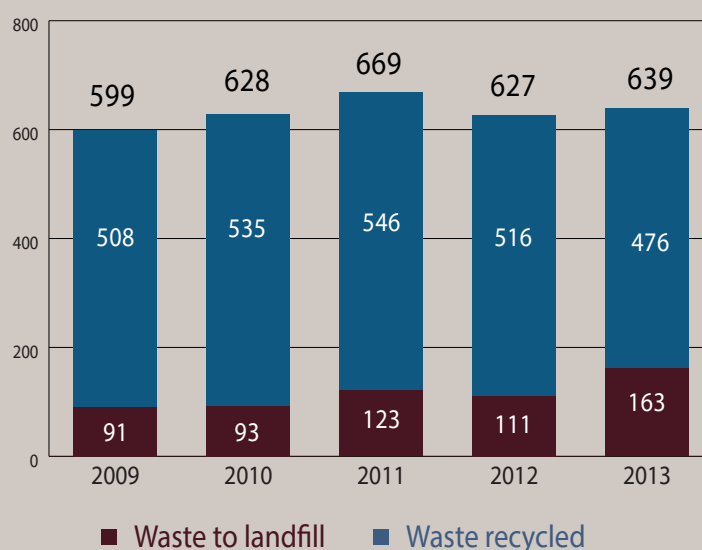
Office waste (paper, empty toner cartridges, dead batteries, etc.) and canteen waste (leftover food plus glass, plastic and metal containers) are collected separately and sent for recycling.

As regards the Bank's staff canteens, in 2013 meals that had been prepared but not consumed were again donated to charitable organizations (the staff canteens in Rome and Frascati alone donated more than 36,000 meals and more than 1,600 kilograms of bread). In addition, with the aim of eliminating at source the production of waste such as small plastic bottles and cans, at the end of 2014 installation of automatic drink dispensers began for the in-house canteens, under the new catering services contract.

The special waste created by the printing of the Bank's publications and by the banknotes production plant (Banknotes Directorate) are managed so as to promote recycling and energy recovery and, at the same time, to minimize landfill. Equipment has been installed at the Banknotes Directorate

FIGURE 9

WASTE – THE BANKNOTES DIRECTORATE Special waste produced (thousands of kilograms)



waste

for the production of intaglio printing plates based on PVD (Physical Vapour Deposition) technology, completely eliminating galvanic chromium plating and the related production of hazardous waste.

Figure 9 depicts the quantity of special waste produced by the Banknotes Directorate in the last five years: about 75 per cent was sent for recycling in 2013.

shredded banknotes

The Bank of Italy prints and issues euro banknotes. It also periodically sorts the banknotes in circulation to guarantee the quality standards for cash: worn banknotes are shredded at Bank units with shredding systems.

WASTE – BANK OF ITALY
Production of shredded banknote waste
(thousands of kilograms)

FIGURE 10

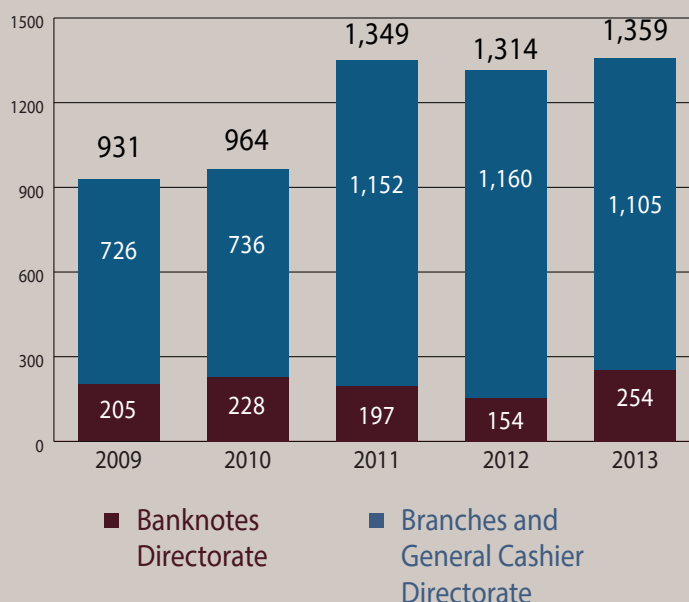


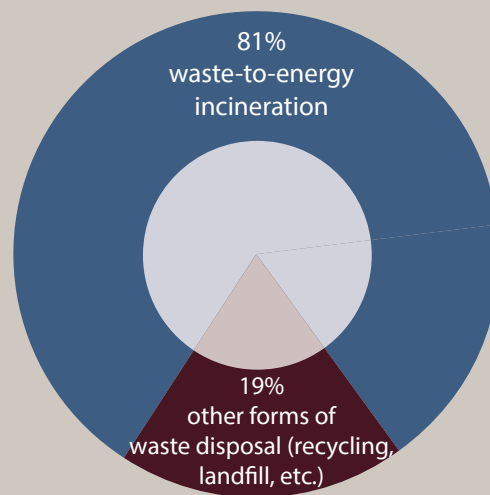
Figure 10 shows the production of waste in the last five years as a result of the banknote production process (shredded worn banknotes, paper waste, discards, trimmings and paper used to start up the printers).

In line with the initiatives of other Eurosystem central banks, a project began several years ago to promote the recovery of energy from this waste, which is the most environmentally effective way of dealing with it. As shown in Figure 11, in 2013 the share of shredded banknote waste sent to waste-to-energy incineration plants was 81 per cent, basically the same as in the previous year.

shredded banknotes

FIGURE 11

WASTE – BANK OF ITALY
Percentage of shredded banknote waste in 2013
according to final treatment



sustainable mobility

business travel

+3%

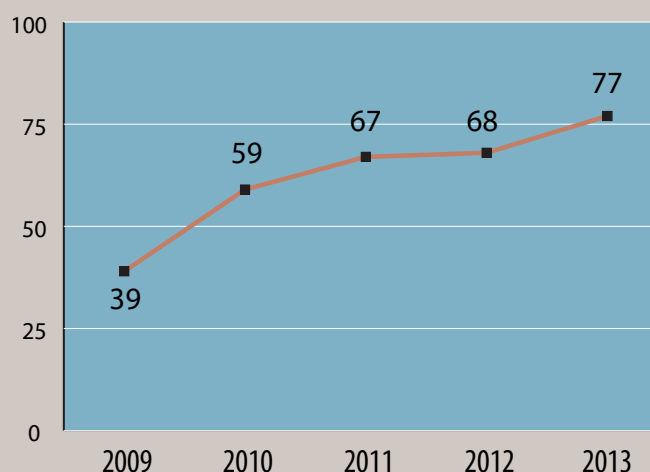
The increase in kilometres travelled in 2013 compared with 2012

Using a vehicle for business travel has an impact on the environment. With the aim of reducing business travel, video conference facilities have been progressively installed in the Bank's main offices (Figure 12): 2,345 video conferences were held in 2013, 20 per cent more than in the previous year.

BUSINESS TRAVEL – BANK OF ITALY

FIGURE 12

Number of rooms with video conference facilities



To reduce harmful emissions from the vehicles used for travel between the Bank's buildings in the Rome area, in 2014 the Bank is substituting 8 of its petrol/diesel-engine vehicles with the same number of electrically powered ones; 8 corresponding charging points will also be installed. Furthermore, to encourage staff to use electric vehicles for travelling to and from the office, other charging points will be installed in addition to the 13 already in use.

478

Kilograms of CO₂ generated per staff member for business travel

The total number of kilometres travelled on business trips in the last year was about 4 per cent lower than the 2009 figure although in 2013 there was an increase of about 3 per cent on the previous year.

Figure 13 shows the kilometres travelled in the last five years using various means of transport: in the period under examination the number of kilometres travelled by air has declined while travel by train, the most ecological means of transport, has increased.

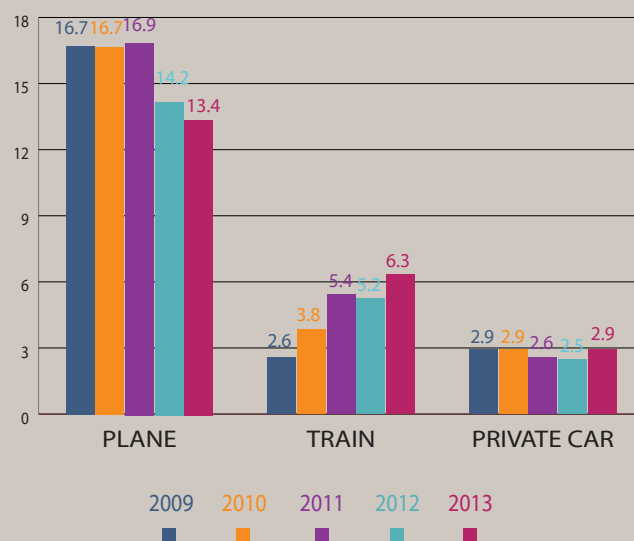
sustainable mobility

business travel

BUSINESS TRAVEL – BANK OF ITALY

FIGURE 13

Comparison of distances travelled by means of transport in the period 2009-2013 (millions of kilometres)



This trend is confirmed by Figure 14, which gives the percentages of travel by train and plane for the various distances. For distances of under 300 kilometres, the train is almost always used; in 2013, for distances of between 300 and 900 kilometres, in 2013 the number of trips by air was similar to that for trips by train. For the most frequently travelled route between Rome and Milan, again in 2013, the number of trips by train was slightly higher than by plane. For journeys of more than 900 kilometres, air travel was always the preferred option.

BUSINESS TRAVEL – BANK OF ITALY

FIGURE 14

Comparison of travel by train or plane in the period 2010-2013

Km	2010		2011		2012		2013	
	✈️	🚆	✈️	🚆	✈️	🚆	✈️	🚆
0-300	1%	99%	2%	98%	5%	95%	1%	99%
300-600	56%	44%	42%	58%	51%	49%	48%	52%
600-900	93%	7%	67%	33%	95%	5%	52%	48%
ROME-MILAN	60%	40%	49%	51%	52%	48%	44%	56%

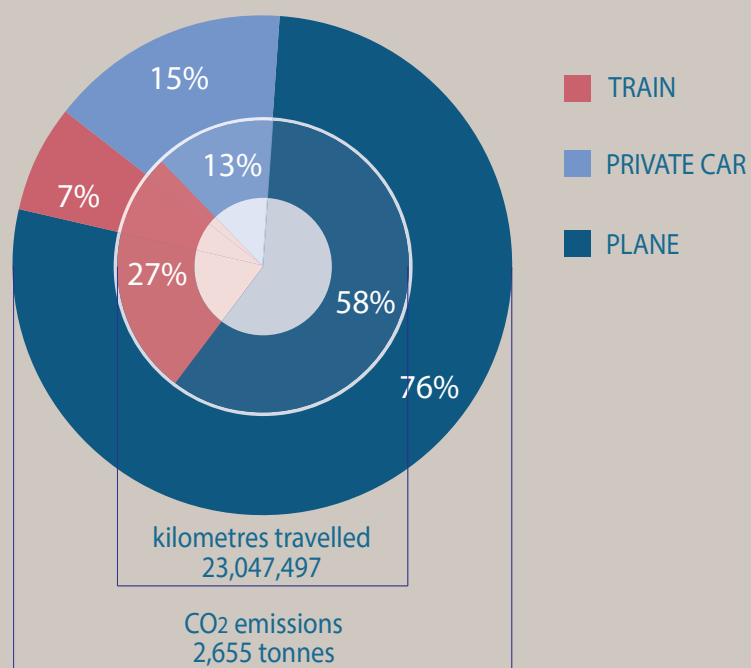
sustainable mobility

business travel

BUSINESS TRAVEL – BANK OF ITALY

FIGURE 15

Percentage of CO₂ emissions and distances travelled in relation to means of transport used in 2013



The inner circle of Figure 15 gives, as a percentage of the total, the number of kilometres travelled using the various means of transport; the outer circle gives the CO₂ emissions for each one. The figure shows that while train travel accounts for 27 per cent of the kilometres travelled, it produces only 7 per cent of total emissions for business travel.

green procurement

The Bank intends to reduce its ecological footprint, including by means of a policy aimed at 'green' procurement, in the knowledge that green public procurement policies can help to guide the external market towards developing more sustainable goods and services.

In tenders for the procurement of goods and services, where possible, environmental protection certificates are among the requirements, there are green clauses for service execution, and higher scores for 'greener' companies in procedures favouring the most economically advantageous tender.

In particular, the procurement procedure for catering services requires the contractor to have obtained environmental certification under ISO 14001. In addition to clauses aimed at reducing waste (see the section on waste on page 14), the contract requires food to be produced locally, where possible, and cleaning products to have a European ecolabel. It also calls for food products to be grown on land confiscated from the mafia and supplied from fair trade sources – in keeping with the Bank's social responsibility commitments.

The procedures for cleaning services, in addition to environmental certification under ISO 14001, require that all the products used comply with the minimum environment standards for the sector and more points are awarded for the use of ecolabelled products.

Environmental protection standard ISO 14001 is required to enter the procurement procedure for the operation and maintenance of the Donato Menichella Centre.

Green clauses have been included in the contracts for the supply of office chairs and photocopy paper.

Lastly, the procurement of technological equipment (personal computers, printers, photocopiers, servers, etc.) require that all these items comply with the highest ecological and energy standards: all of the Bank's personal computers have ecolabels.

methodology

-42

The reduction in the number of employees compared with the previous year

The data contained in this report have been updated to 31 December 2013 by the Bank's Workplace Health and Safety Office, on the basis of the information provided by the various units of the Bank.

All the figures contained in the report specify the buildings or facilities to which they refer (see the legend below). In particular the figures labelled Bank of Italy refer to the buildings where the head office directorates and branch offices carry out their work.

The number of staff employed by the Bank of Italy at 31 December 2013 was 7,027 (see Annual Report, 2013, available on the website); there were 4,241 employees in the Rome area.

BANK OF ITALY

ROME AREA

- Palazzo Koch - comprising the buildings at Via Nazionale 91, Via dei Serpenti, Via Panisperna and Via Mazzarino (Rome); it contains the Printing and Publishing Division for the Bank's publications, managed by the General Affairs Directorate
- Donato Menichella Centre - located in Largo Guido Carli (Frascati); it also houses a data processing centre and the Donato Menichella Centre Rome Branch (specializing in cash handling)
- Banknotes Directorate - the industrial site at Via Tuscolana 417 (Rome), which prints euro banknotes
- Largo Bastia - the site in Rome of one of the Bank's two data processing centres
- other premises in the Rome area:
Via Milano (buildings located at Via Milano 53, 60/g and 64); Via XX Settembre (Roma Sede branch and the head office directorates at Via Pastrengo 14); Via Piacenza (the buildings on Via Piacenza and Via Parma and at Via Nazionale 187 and 191); the buildings located on Via Quattro Fontane 123, Via Due Macelli 79, Via IV Novembre 158, and Via Otricoli 41-57; Via dei Mille 52 (site of the Rome branch office)

BRANCHES

(excluding the 3 branches in the Rome area)

- regional branches (19) ○
- with a broad range of operations (6) ○
- specializing in cash handling (5) ○
- specializing in customer services (25) ○
- closed down (39) ○
(after the 2008-2010 reorganization)

methodology

To calculate the environmental indicators per employee (e.g. the per capita consumption of paper, etc.), no account was taken of staff from external companies or of Carabinieri police officers working, even on a continuous basis, on Bank premises.

The environmental indicators were calculated according to the relevant national and international guidelines. For emissions from energy consumption and business travel, we followed the guidelines on the applications to banks of the GRI Global Reporting Initiative, published by ABI Lab (2013), in turn based on the 'Greenhouse Gas (GHG) Protocol'. To calculate energy consumption in tonnes of oil equivalent (TOE), for electricity reference was made to the conversion factor suggested by the Italian Authority for electricity, gas and water (Delibera EEN 3/08) and, for fossil fuel, to the 'National Inventory Report (NIR)', ISPRA (2013).

