Climate Finance Report

2019 - June 2020

santander.com

Santander

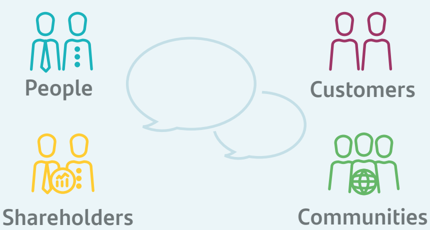
Our approach to responsible banking

"By delivering on our purpose, and helping people and businesses prosper, we grow as a business and we can help society address its challenges too. Economic progress and social progress go together. The value created by our business is shared – to the benefit of all.

Communities are best served by corporations that have aligned their goals to serve the long term goals of society."

Ana Botín

By being responsible, we build loyalty



I´m loyal to Santander because...

... Santander treats **me** responsibly

In our day-to-day businesses, we ensure that we do not simply meet our legal and regulatory requirements, but we exceed people´s expectations by being Simple, Personal and Fair in all we do.

... Santander acts responsibly in **society**

We focus on areas where, as a Group, our activity can have a major impact on helping people and businesses prosper.

2019 Progress in our climate finance and environmental footprint performance and commitments

Santander commitments related to climate change

		2018	2019	2020	2021	2022	2023	2024	2025
Commitments related to our own operations (Environmental footprint)	Electricity used from renewable energy sources[1]	43%	50%		60%				100%
	Becoming carbon neutral in our own operations			0%					
	Reduction of unnecessary single use plastic in corporate buildings and branches		75%		100%				
Commitments related to our business activities	Green finance raised and facilitated[2] (euros)		19Bn						120Bn

From... to...   *Cumulative target*

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

- Disclosure of progress according to the 4 TCFD pillars.
- Santander is participating in the UNEP FI second phase, along with 35 global and local banks.
- Disclosure of portfolio in climate relevant sectors so that we can make progress towards the Paris Agreement Goals[3].

SUSTAINABLE FINANCE:

- Global leader in renewable energy financing, in terms of both the number of transactions and their amounts, in 2019.
- In 2019, we launched Santander Sustainable & Green Bonds Frameworks and issued a €1 billion green bond.
- In June 2020, we have made our second green bond issuance, again, of €1bn proving our commitment to green finance.

ENVIRONMENTAL FOOTPRINT:

- In 2019, 50% of our internal energy consumed comes from renewable energy and our target is to have 100% by 2025[1].
- Become carbon neutral in our own operations this year, 2020.

Other highlights

#1 sustainable bank in the world in

SAM Sustainability Award Gold Class 2020

Founding signatory of the United Nations Principles for Responsible Banking and adhere to the Collective Commitment on Climate Action

UNEP FINANCE INITIATIVE

CLIMATE ACTION SUMMIT 2019

GOLD sponsors at COP25

COP25 CHILE MADRID 2019

1. In those countries where it is possible to certify renewable sourced electricity for the properties occupied by the Group.
2. Includes Snatander overall contribution to green finance: project finance, syndicated loans, green bonds, capital finance, export finance, advisory, structuring and other products to help our clients in the transition to a low carbon economy. Commitment from 2019 to 2030 in 220Bn.
3. PACTA pilot led by 2º Investment Initiative (2Dii).

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Overview

"We are supporting the development of renewables and the more efficient use of energy while helping our clients make the transition to a low carbon economy. At the same time, the need to take measures to adapt and mitigate climate change presents significant investment opportunities, which we are ready to seize by taking positive action against climate change."

1. Climate change today and the banking sector

Climate change science, economic impacts and policy response

The Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change, estimated that, since the late 19th Century, human activities causing heat-trapping emissions have resulted in approximately 1°C of global warming above the pre-industrial (1850 – 1900) average. Warming is likely to breach the critical 1.5°C boundary by 2052 at the latest, and may even reach that level as soon as 2030, if greenhouse gas (GHG) emissions continue at current rates. This rate of change would put global warming on track to reach 4°C by the end of the century.

The models used to understand the future of climate at different levels of warming show material differences between present-day conditions, and global average warming: from 1.5ºC, to between 1.5ºC and 2ºC of warming. These findings include:

1. Increases in average temperatures across most land and ocean regions with the largest differences experienced in the mid-latitudes of the Northern Hemisphere during winter (December – February).
2. Increases in extreme hot temperatures (e.g. historic temperature records broken & heatwaves) in the most inhabited regions;
3. Increases in heavy precipitation (potential flash flooding) in several regions and conversely the probability of lower precipitation and drought in some regions;
4. Increases in climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth.

The risks would increase further with a global average warming of 2°C, and further still with a warming of 4°C.

The impact of climate change on the global economy and geopolitical situation is increasingly evident. Studies have found that the overall aggregate effect of climate change on economic growth will most likely be negative in the long run. Unchecked global warming could slow economic growth. Although there will be winners and losers from climate change at varying levels of warming, the balance between winners and losers turns increasingly negative as temperatures rise.

Driving the world to a low carbon pathway will require $6.9 trillions in investment every year, up to 2030, to meet the Paris Agreement according to the OCDE[1], and has the potential to strand assets across many industries. In countries and regions where CO_2 emissions are closely associated with GDP growth (e.g. emerging economies), the objective of economic growth can be in conflict with that of emissions reductions. Therefore, the two must be decoupled, in order to maintain growth and prevent the worst impacts of climate change. Because if unchecked, the impact of climate change on the natural environment threatens long-term economic growth.

Climate change is recognised as a global issue, with transnational causes and impacts. This has made it a focal point for multilateral policy initiatives, such as the UN Framework Convention on Climate Change (UNFCCC), ongoing since 1992. The UNFCCC has produced two landmark treaties, most recently the Paris Agreement, which has been ratified by the vast majority of countries.

At COP 21, in December 2015, Parties to the UNFCCC agreed via the Paris Agreement to combat climate change and accelerate the actions and investments needed for a sustainable low carbon future. Specifically,

Driving the world to a low carbon pathway will require $6.9 trillions in investment every year, up to 2030, to meet the Paris Agreement according to the OCDE

1. Financing Climate Futures: Rethinking Infrastructure Policy Highlights OECD/The World Bank/UN Environment, 2018 link to full report: https://www.oecd.org/environment/cc/climate-futures/policy-highlights-financing-climate-futures.pdf

the Paris Agreement seeks to limit warming to well below 2°C above pre-industrial levels, and to pursue efforts to limit the increase to 1.5°C. The Agreement entered into force on 4 November 2016, and has been ratified by 186 Parties of the UNFCCC as of October 2019, equating to approximately 99% of global GDP and approximately 97% of global GHG emissions.

The Paris Agreement requires all parties to put forward their best efforts through nationally determined contributions (NDCs) and to strengthen these efforts in future years. The UNFCCC requests all signatories to the Paris Agreement to update and submit their NDCs every five years. The next round of nationally determined contribution submissions are scheduled for 2021 at COP 26. NDCs are supposed to become more stringent through time, and are expected to ultimately align with the Agreement's 1.5°C to 2°C target range.

Following this path, In December 2019, the European Commission presented the European Green Deal, an overarching framework and programme of actions to transform the European economy. A key component of the Green Deal is the proposed 'Climate Law' embedding a legal commitment for the EU to achieve climate neutrality by 2050. The EU will bring forward a comprehensive plan to increase the EU 2030 climate target to at least 50%, and will also bring forward a revised and more ambitious strategy on adaptation to climate change, building from the 2013 strategy and the adaptation goals of the Paris Agreement and the SDGs.

The role of the banking sector: risks and opportunities

Climate risk is not a new risk type, but an emerging driver of risk; it will impact the banking sector through a variety of channels, including credit, market and operational risk among others. Risks can often be hidden, or difficult to understand, and are therefore subject to mispricing.

Compared to non-financial organisations, the banking sector has a different exposure profile to climate-related issues. Risks and opportunities can emerge within financial markets through activities such as investing, lending and the trading of financial derivatives.

In Santander, aligned to organisms that are advanced in climate change such as the PRA in the UK, we have framed how climate-related risks and opportunities could materialize:

Credit risks

- Physical climate change can lead to increased credit exposure for banks if damages to assets are not insured and the financial burden falls on the banks.
- Companies with business models not aligned with the transition to a low-carbon economy face a higher risk of reduced corporate earnings and business disruption due to new regulations or market shifts. This may leave them unable to repay loans or meet their obligations on other financial transactions.

Market risks

- Market changes in the most carbon-intensive sectors affecting energy and commodity prices, corporate bonds, equities and certain derivatives contracts.
- The increasing frequency of severe weather events could also affect macroeconomic conditions through sustained damage to national infrastructure and weaken fundamental factors such as economic growth, employment, and inflation.

Operational risks

- Severe weather events could directly impact business continuity of a customer's and the bank's operations.

Reputational risk could also arise from shifting sentiment among customers and increasing attention and scrutiny from other stakeholders (investors, regulators, etc.) on the banking sector's response to climate change.

An orderly transition to a low-carbon economy can also take advantage of opportunities for investment in innovation, infrastructure, skills and cities. Achieving the goal to limit global temperature increases requires an urgent scaling-up of investments in the low-carbon energy transition. These investments have potential for attractive returns and therefore, financing the transition to a low carbon economy is a major opportunity for investors and creditors.

The OECD found in 2017 that annual investment of $6.9 trillion in new infrastructure was required to limit global warming below 2°C between 2016 and 2030. Also, as part of the Sustainable Europe Investment Plan and the European Commission's next multi-annual financial framework (MFF 2021-27), the InvestEU Programme, the single budgetary guarantee of the EU, will aim to leverage EUR 279 billion of public and private climate financing. The EU's Action Plan on Financing Sustainable Growth (March 2018) called for the creation of a classification system for sustainable activities or Taxonomy, focusing on economic activities that can make a substantial contribution to climate change mitigation or adaptation, while avoiding significant harm to the other environmental objectives.

As energy policies are re-designed to achieve climate neutrality by 2050, it is important to review how fossil fuels are being subsidised, in order to support progress on phasing out fossil fuels. While acknowledging that different countries have different circumstances, the overall policy framework that is being designed in Europe and in other jurisdictions to guide the transition to a low carbon economy, should ensure that fuel prices are set at efficient levels that properly internalise the associated environmental costs in the form of climate change, air pollution, etc.

Another element to consider is the role that an effective carbon pricing mechanism could play in setting the right framework to reduce emissions and drive investment in low carbon technologies and infrastructures. It would be advisable that the carbon policy instruments are part of a broader framework of policies, including on energy efficiency or research and development, in order to achieve the necessary emissions reduction. International alignment should be prioritised, so that any potential solution works across countries and avoid carbon leakage. This is in line with what leading sustainability organizations like WBCSD are supporting.

Santander contributes to the transition to a low carbon economy by supporting clients (companies, SMEs and individuals) in all sectors involved in this transformation. Our aim is not only to finance what's already green, but to support the greening of the economy, supporting our clients in their transition to sustainable production

The challenge we are facing comprises mobilizing trillions of dollars and euros of capital required, driving billions of people make green decisions and facilitate the green transition allowing everyone to be on board. In this sense, we advocate for a just transition, ensuring that no region or community is left behind and that sufficient investment is devoted to reskilling people.

Policies and regulations are key to set price signals and guide the transition with clear incentives. Governments have to define clear paths on how each sector will reconvert to meet the targets of a low carbon economy, backed by policies and incentives, enabling banks to support companies in their transition, under a certain environment. Being climate a global challenge, a global response is needed, notwithstanding international standard setting bodies should play a key role in directing the agenda.

The recommendations from the Task force on Climate-related Financial Disclosure provides a starting point for aligning corporate disclosure on climate change with requirements falling directly to the banking sector. Given the global scope of the transition, international alignment on taxonomies (where the EU Taxonomy is a very significant milestone), methodologies, agreed data sources and scenarios will avoid having disparate and not comparable results, while ensuring a level playing field. We also expect disclosure to be enhanced with increased availability of non-financial corporates climate-related data.

"If this recovery is to be sustainable—if our world is to become more resilient—we must do everything in our power to promote a "green recovery." In other words, taking measures now to fight the climate crisis is not just a "nice-to-have." It is a "must-have" if we are to leave a better world for our children."

Kristalina Georgieva, IMG Managing Director

The COVID-19 pandemic is a global emergency that is shaping economies across the world, impacting lives and jobs and the production models of entire nations. As immediate crisis response, governments are developing longer-term economic stimulus packages to combat the crisis and towards rebuilding the economy. It is crucial these packages to promote health, equity, and environmental protection, including climate change, so that when we eventually overcome the COVID-19 pandemic, measures are in place the day after to accelerate the growth of an inclusive, resilient net-zero carbon economy by 2050 at the latest.

Santander understands the key role that the Group plays as part of the financial sector in the rebuilding of our society after the COVID-19 crisis. We recognise the importance of aligning economic recovery around social and green principles and so, we have signed the manifesto launched on May 5th by the Green Recovery Alliance European group to support and implement the establishment of Green Recovery Investment Packages. Santander has become one of the main signatories of this alliance with more than other 30 European financial institutions, 79 members of the European Parliament, civil society groups, NGOSs, think tanks, and business associations. The documents calls for a global alliance, as a global and coordinated economic response to come out of this crisis. We already have the tools and technologies, the plans, the will and the strategy that now we must turn into action. COVID-19 will not make climate change go away, if we fight and win these two battles at the same time. "By doing so, we will only be stronger together."

Find more detailed information

Action on Climate and the UN SDGs

Finances creation and development of green energy projects.

Invests in shifting the energy industry towards a low-carbon economy.

Funds sustainable energy solutions for people and companies.

Fosters and promotes responsible use of resources.

Is involved in mitigating climate change, helping in the shift towards a low carbon economy.

Collaborates with a number of social entities to achieve sustainable development.

Source: CGAP and UNGSA (2016)

2. TCFD implementation

Santander announced its commitment to the Task force on Climate-related Financial Disclosures (TCFD) in December 2017. We recognise that the TCFD is an important step in the right direction to inform and improve transparency, reporting standards and awareness of the financial risks and opportunities related to climate change. We are executing a programme to implement the recommendations, engaging with internal and external stakeholders to develop the tools and methodologies needed.

Climate change risk and opportunity management requires collaboration between different functions within the bank as explained below. Moreover, the nature of the topic means that it is critical to collaborate with external stakeholders in building and developing knowledge.

We have participated as speakers in climate conferences from the Financial Stability Board, European Banking Authority, European Banking Federation and Bank of Spain among others. We are actively engaged with different stakeholders such as regulators, sector associations, think-tanks and other working groups, and we participate in consultations and debates that are contributing to build finance solutions that better support the UN Sustainable Development Goals and the Paris Agreement on climate.

Further information on our engagement and collaboration with other stakeholders is included in chapter 5.

Our 2019 annual report incorporated information in line with the four pillars of TCFD and this thematic report expands on that information and includes our progress during the initial months of 2020.

TCFD implementation progress

Governance

The Board is informed about climate change through its Board responsible banking, sustainability & culture committee (RBSCC). This committee assists the Board in the oversight of climate change within the scope of the Responsible Banking strategy. The RBSCC enables more informed board decision making and strategy taking into consideration climate change related risks and opportunities.

The RBSCC consists of eight directors, seven external, with the majority being independent, and the Executive Chairman and it is chaired by an independent Board Director. All Directors have been appointed taking into account their knowledge, qualifications and experience. This Committee meets quarterly, and includes the review of our climate change strategy and other climate related topics at each meeting through business risk and opportunity lenses as well as the bank's commitments to improve the performance of its own operations.

During 2019, climate change was discussed at all four meetings of the RBSCC covering issues such as TCFD, specific sector analysis, business lines plans and environmental footprint. A joint session of the RBSCC and the Board Risk Supervision, Regulation and Compliance Committee reviewed a deep dive analysis of the extractive industries, as climate-relevant sectors. Further information on this session is included in the Risk Management section below.

In 2019, the Board attended a Responsible Banking training session, and another session solely dedicated to climate change designed to better equip the Board to address the challenges posed by this subject. Two new Board members also received specific Responsible Banking and climate change induction sessions.

Executive management of the Responsible Banking agenda resides with the Inclusive & Sustainable Banking Steering which promotes, amongst other topics, the transition to a low carbon economy, and fosters sustainable consumption. The inclusive & sustainable banking steering feeds into the RBSCC and it meets every six weeks with the majority of meetings having climate change on the agenda.

- The steering is chaired by the Head of South America, who is also an executive director member of the board. The members include the Chief Risk Officer, Chief Strategy Officer, Head of SCIB, Head of Europe, co-Head of North America, Head of Supervisory and Regulatory Relations, Head of the Santander Universities, Senior Adviser to the Group Executive Chairman, Head of Responsible Banking, Head of Sustainability & Head of Culture.

- The Group Management Committee is also informed twice a year of progress on the Responsible Banking agenda, including climate change with a focus on TCFD implementation and ESG business opportunities.

- The Board has approved that the 2020 executive scorecard, that measures our achievement against metrics and underpins the Group's remuneration scheme, will consider progress against our Responsible Banking targets, which include climate related targets.

The Climate Change agenda and governance and the implementation of TCFD recommendations are cascaded throughout the Group by specialised working groups. As of May 2020 the following are fully operational:

Mandated by the RBSCC, a Group TCFD Working Group

incorporates key functions and geographies to support the execution of the TCFD implementation roadmap.

The Risk Division Climate Change Working Group

incorporates different risk areas to develop and implement risk specific tasks set out in the TCFD roadmap.

SCIB ESG Working Group

Has a wider agenda which includes climate business positioning and opportunities.

The Sustainable Bond Steering Group

oversees the issuance of Santander Group sustainable bonds.

The Public Policy Sustainability Working Group

advises on regulatory developments and coordinates a Group response to public consultations.

Santander UK Climate Change Working Group

coordinates the implementation plan to comply with the PRA's Supervisory Statement on climate change risk management.

Climate change is also included in the General Sustainability Policy owned by the Board of Directors. The policy was updated in 2019 to include Responsible Banking (including climate) governance. Where relevant, environmental and social aspects are fully aligned to the Board policies covering the energy, mining and metals and soft commodities sectors. These policies are described below in the risk management section.

In the first quarter of 2020, the Risk Division has completed a comprehensive review of its governance in relation to climate change. The review considered the terms of reference of governing bodies, their forward looking agendas and the Risk Framework. In addition, and over the course of the annual review process, all policies and internal procedures will be reviewed, and specific references to climate change risk management will be introduced were relevant.

Also important is Santander's participation in the development of public policies. Santander engages with relevant stakeholders, from financial authorities to consumer associations by participating in formal consultations and industry fora, as well as engaging with industry bodies and collaborating with peers to reach common positions on sustainable finance related issues. We work closely with industry bodies at international and European level – including the Institute of International Finance, European Financial Services Round Table, the Association for Financial Markets in Europe, and the European Banking Federation. We also engage with domestic industry bodies in the main markets in which we are present. This enables us to have a comprehensive understanding of the market developments and regulatory initiatives in the different jurisdictions, as well as their impact on Santander and our customers.

Our Public Policy team coordinates this work stream and engages with different functions within the bank, to ensure that all affected areas can duly contribute to these consultations and engagements. To ensure coherence and consistency with Santander's Responsible Banking agenda and approach, our Public Policy team also participates in internal sustainable finance conversations and is a member of internal working groups like the TCFD working group.

Recent examples of initiatives we have been focusing on include: the EU framework for identifying sustainable economic activities (the so-called EU TEG taxonomy); the disclosure regulation relating to sustainable investment and sustainability risks; or the ongoing work on the identification and management of climate-related risks. In addition, Santander is participating in the EBF-UNEP FI working group that will develop voluntary guidelines for banks on the application of the EU taxonomy to the lending book.

During 2019 we have also taken steps to capture climate-related information included in our three year financial plan & through our green finance targets and other business metrics

Strategy

Risks related to the transition to a lower carbon economy and physical impacts from climate change need to be incorporated into the strategy of Santander in the short, medium and long term.

We have identified sectors and geographies that are more likely to be impacted by climate transition and physical risks. This materiality approach informs the selection of our sector deep dives with specific risk assessment exercises. Having undertaken an initial analysis of transition risk on the car manufacturing sector in 2018, in 2019 we conducted an analysis of our European power sector portfolio in Santander Corporate and Investment Banking. In relation to physical risk, the focus has been on our UK mortgage book. Further information on these deep dives can be found below in the risk management section.

During 2019 we have also taken steps to capture climate-related information on the opportunities side and these are included in our three year financial planning process through our green finance targets and other business metrics. Further climate-related information is to be incorporated in 2020. At the end of 2019 RBSCC also supported the inclusion of climate change into our long term strategic planning process both at Group level and in our countries of operation, and this is being executed starting in 2020.

Climate-related time horizons have been defined and embedded into our strategic process. We define short term as up to a year aligned with budget; medium term as 3-4 years aligned with budget planning; long term as 5-7 years aligned with strategic planning; and, for ad hoc analysis, we define longer term as beyond 7 years.

We have started developing a quantitative risk framework using climate change scenario analysis to assess impacts and effects at borrower level as well as portfolio level. This is articulated around three principal working lines:

1. Work on climate scenarios, key assumptions, main drivers & outputs of the scenarios.

2. Translating climate scenarios to risk factors to calculate financial impacts.

3. Adapting climate risk factors to the methodology and credit models to obtain metrics such as Probability of Default (PD), Loss Given Default (LGD), and Expected Loss (EL).

Regarding the first point, our Economic Research Department is building their understanding of different type of scenarios, external sources, available Shared Socioeconomic Pathways[1] and Integrated Assessment Models[2] and the different assumptions for each (i.e.: on carbon pricing and other policy instruments, technology, climate targets set), the main drivers affected by sector and subsector level as selected by Risk and the outputs generated (energy use, volume of emissions, prices, GDP, consumption or tech deployment) as enablers to calculate exposure to each scenario impact.

1. Shared Socioeconomic Pathways (SSPs) are scenarios of projected socioeconomic global changes up to 2100. They are used to derive greenhouse gas emissions scenarios with different climate policies.
2. Assessment Models such as MESSAGE (International Institute of Applied System Analysis – IIASA) and REMIND (Postdam Institute for Climate Research- PIK).

Further information on the calculations of financial impacts, climate risk factors and calculations for PDs and LGDs is included in the risk management section.

We have also made a number of commitments to align our portfolios with the Sustainable Development Goals and the Paris Climate Agreement. In order to achieve these goals we are raising and facilitating green finance, and we have joined the UNEP FI Collective Commitment on Climate Action, which requires us to set a scenario based sector specific target by 2022.

This approach is consistent with Santander's track record as a leader in financing renewable energy projects. It is also aligned with our commitment to the UNEP FI principles for responsible banking and will help us deliver financial products aligned to sustainable development goals, including climate. More information on our approach and performance regarding sustainable and climate finance can be found in chapter 3.

A good example of this was the development of the Santander Sustainability Bond Framework and the issuance of our first green bond - a tangible way to support our strategy and meet our targets regarding new green investments.

Finally, we have continued to deliver on our targets to reduce the emissions from our own operations. Our approach incorporates both a reduction of emissions (by switching to renewable sources for electricity consumption) as well as offsetting the remaining emissions to become carbon neutral. More information on our performance regarding direct emissions can be found in chapter 4.

Risk Management

Climate change related risks and opportunities are being embedded into the Group's risk processes.

The Top Risks identification and assessment process led by the Enterprise-wide Risk Management function incorporates climate change and it is updated on a quarterly basis to reflect the evolution of the regulatory changes to the climate change agenda.

In 2019 we have also incorporated climate change into the bank's overall risk management approach and, from 2020, physical and transition risk are included in the Group's risk management framework as factors that could aggravate the existing risks in the medium and long term.

Environmental and social risk management

Climate-related risk management criteria are included in Santander´s Board-owned sector policies and cover issues such as financing of fossil fuels and protecting against deforestation. Our policies are reviewed on a yearly basis.

Our sector policies are available on our corporate website

Energy policy:
Includes prohibitions for financing coal-fired power plant projects worldwide and new clients with coal-fired power plants worldwide; for the development, construction or expansion of oil sands projects in non-designated countries[1] and for the development, construction or expansion of oil and gas drilling projects north of the Arctic Circle, amongst others.

Mining-metals policy:
Includes prohibitions for financing thermal coal mine projects worldwide and new clients with thermal coal mines, amongst others.

Soft commodities policy:
Includes prohibitions for developments in forested peatlands in high-risk geographies and extraction and sale of native tropical wood species not certified to FSC, amongst others.

Dedicated E&S champions within the credit risk function review customers and provide assessments on these criteria and on the overall performance of the customer in relation to their management of environmental and social risks.

1. As defined by the Equator Principles.

Staff training programmes

During 2019, our global E&S Risk Management function provided face to face training to over 400 staff, across all units where Santander operates.

In 2019, and continuing throughout 2020, we have rolled-out a comprehensive climate change training programme. In 2019 we published an internal briefing paper focused on climate change science facts, its geopolitical and macro-economical implications, as well as commercial impacts on companies. This provided the basis for a training session attended by over 200 staff in Head Quarters. This training has now been converted into an on-line course which has now been shared with local units to incorporate as part of their training programmes. Further training activities are currently being planned including additional awareness raising and specific topics on business opportunities.

Finally, we have developed sector specific briefings for carbon intensive sectors that support our business and risk teams in their understanding of our clients' climate change related risks and opportunities. These briefings identify and explore topics relevant to each sector linking climate change factors, both transition and physical, to credit risk. They also cover relevant climate policy and regulation, sector specific resource themes, market and technology risks and opportunities, and physical climate change.

As part of the development of a climate change risk management framework we are monitoring sectors and geographies that are more exposed to climate change transition and physical risks. A detailed description of the tools used, such as a risk taxonomy to classify the economic sectors, a heat map by type of risk and geography, and the assessment of the vulnerability of sectors to each risk is included further below.

We are also developing our methodology for calculating quantitative impacts at borrower and portfolio level (as mentioned in the Strategy section) using sensitivity and scenario analysis and we are working on a future implementation of climate change related stress testing. However, there are still uncertainties on the scope, scenarios and approach to achieve an accurate final calculation. Santander is participating in the UNEP FI TCFD Task Force where some of these issues are being progressed.

Climate change portfolio specific analysis

In 2019 we undertook a number of detailed analysis to further understand what impact climate change has on certain portfolios.

i. Deep dive analysis of the oil and gas, mining and steel sectors.

ii. European Union power sector analysis of climate related financial risks and opportunities.

iii. Santander UK mortgage portfolio analysis.

Further information about the approach and highlights of the results are described below.

In 2019 we have analysed in detail certain portfolios to further understand what impact climate change has on them

EU Power sector analysis of climate related financial risks and opportunities

The power sector is key in the transition to a low carbon economy. In the case of Santander, the wholesale banking EU power portfolio is material as it represents 69% of our total exposure to the sector, and it has a legal roadmap for transition to a low-carbon economy under EU rules on emissions. For these reasons, in early 2019 we conducted a first review of its climate related risks and opportunities through a qualitative analysis. The results of the exercise were presented to the Responsible Banking, Sustainability and Culture Committee of the Board of Directors.

The analysis was undertaken by the specialist Power teams in the wholesale risk and business areas with the support of an external advisor. The focus of the exercise was two-fold: to link climate change transition scenarios to financial drivers to understand how this affects the financial resilience of our wholesale customers, and to analyse the current technological mix of our portfolio and its alignment to transition scenarios.

The process was as follows:

- **Santander's EU power portfolio** as of December 2018 was segmented into relevant sub-sectors: renewables (wind, solar, other), electricity generation (including gas-fired, coal-fired and nuclear), and transmission and distribution (electricity and gas).

- **In order to test the financial resilience of customers,** the revenues and costs of each subsector were adjusted using financial drivers that included, amongst others, carbon pricing, power prices, plant utilization, subsidies, emission reduction requirements, investment requirements for energy transition, and energy storage potential. The financial drivers were assigned a relevance weight for each subsector. These drivers were selected as being relevant to transition factors covering legal, policy, market and technology.

- **Two bespoke scenarios were used:** a business as usual 3.7º scenario, and a transition to 2º scenario. Scenario datasets used for the financial drivers were taken from the IEA World Energy Outlook 2018 SDS and CPS Scenarios. Other scenarios consulted for the exercise were: Shell Sky Scenario, Equinor Renewal scenario and specific EU scenario EUCO30.

The output of the exercise was a qualitative assessment of the scale of changes in financial drivers to 2020, 2025, 2030 & 2040 assuming portfolio mix, size and macroeconomic variables remained unchanged throughout the time periods. The analysis shows that Santander's EU power portfolio is well positioned for the transition with material opportunities for business development and limited financial risks.

We see continued growth in the renewables subsector, with potential to increase in market size, as costs fall and new technologies develop. For example storage technology and hydrogen have the potential to become game changers, although they require further understanding of potential risks and opportunities.

In the higher risk segments (such as coal and gas fired power generation) our customers are well advanced in the execution of their transition strategies, transforming their energy generation mix through re-engineering of their power plants and investments in more renewables and Santander is engaging with them and supporting them in their transition. For example, we have entered into several transactions with existing clients that have a residual amount of energy generation from coal and we have included contractual provisions to assure that there is a scheduled phase down towards lower emission generation, in line with the sponsors' strategy.

Deep dive analysis of the oil and gas, mining and steel sectors

At the request of the Board's Responsible Banking, Sustainability and Culture Committee and the Board Supervision, Regulation and Compliance Committee, a joint session was held to review the current and emerging risks in the oil & gas and mining & steel portfolios of the Santander Group. This provided a good opportunity to deliberate the issues facing these sectors with independent board members that brought complementary skills and approaches to the discussion.

The focus of the presentation was on the disruption that climate change will bring to companies in these sectors. As well as providing an overview of physical risks that could potentially impact operations, the analysis included forward looking commentary on transition impacts.

Using International Energy Agency scenarios as the basis for the analysis, specifically the Total Primary Energy Demand New Policies Scenario and the Sustainable Development Scenario, members of the committees discussed broad themes on current and future pressures impacting the sectors.

These themes ranged from individual company strategies on renewable energies and emissions targets ambitions, to the development of technology to reduce CO_2 emissions, the increased risk of "stranded assets", water scarcity, and potential impact of carbon pricing policies, consumer behaviour, investor activism, and pressure to reduce coal-fired power plants.

Santander UK mortgage portfolio analysis

Santander UK has undertaken an initial high-level analysis of climate change related impacts on its credit portfolios based on various climate scenarios. As a result, work on specific sectors can be prioritized given relative levels of exposure and potential climate risks, and the residential mortgage portfolio has been selected as the most relevant amongst them.

To further understand climate impact on our mortgage portfolio we worked with Landmark on a study that illustrates climate related risks with a focus on physical risks under different climate scenarios. Landmark is an EnviroTech innovator with ownership of / access to an unparalleled level of detailed property information that can be used to analyse the approximately 1.2 million properties that were held on the Santander UK mortgage book in 2019.

The study focused identifying and mapping the main physical risk of the specific UK perils: flooding, coastal erosion and subsidence, and the principal transition risk in terms of energy efficiency policy and translating them into property specific Loan to Value (LTV) changes. All peril impacts were calculated at the property level to 5 meters accuracy. This resolution is essential because flood and subsidence risk factors can vary considerably between neighbouring properties. For example, a property which is on lower ground may have considerably higher flood risk than its immediate neighbour. Likewise, the presence of large tree within 10m of a building on shrink/swell clay will considerably increase the risk of subsidence.

Santander UK continues to refine the methodology and extend it to the calculation of the probability of default of our mortgage customers. This analysis was performed as part of our continued participation in the UNEP FI, TCFD Pilot II described below.

RCP*	Emissions Scenario illustration	Increase in temp by 2100
RCP2.6	Significant global reduction	1.4 - 3.2°C
RCP4.0	All countries implement Paris Accord	2.1 - 4.2°C
RCP6.0	All signatories implement Paris Accord	2.5 - 4.7°C
RCP8.5	Business as usual	3.4 - 6.2°C

*RCP: Representative Concentration Pathways for greenhouse gas concentration trajectories adopted by the IPCC. The pathways describe different climate futures, all of which are considered possible depending on the volume of greenhouse gases (GHG) emitted in the years to come.

UNEP FI Pilot project on implementing TCFD recommendations for banks

Santander remains fully engaged in the United Nations Environmental Program Financial Initiative (UNEP FI) to implement the TCFD requirements. The initiative's objective is to develop scenarios, models and metrics to enable a scenario- based, forward-looking assessment of climate-related risks and opportunities.

In the first phase ending in 2018, 16 leading banks from four continents, published a developed methodology to increase the understanding of the climate change impacts to their business. Santander specifically focused on direct and indirect transition risks calculation and their impact on its car manufacturing sector within the wholesale portfolio as pilot exercise. The key conclusion from the exercise was the customers' resilience to the stress test, including climate-related transition impacts, due to the capacity of the wholesale clients to adapt to the technological change requirements. This resulted in a limited impact on their credit quality. Our 2018 Climate Finance Report includes further details on this pilot.

Starting in 2019, and continuing into 2020, Santander is participating in the UNEP FI second phase, along with 35 global and local banks. The objective of this new phase is to enhance the "toolkit" with the core modules of climate scenarios, data & methodology, reporting & governance to allow for the measurement of the risks and the climate related impacts as well as to develop approaches to standardised disclosures. Santander is actively participating in various working groups of climate scenarios and methodology, specifically focusing on exercises of physical risks in the mortgage book, a material sector for the Group.

The UNEP FI project continues to bring notable progress to climate risk assessment, with lessons learnt from the first pilot enriching the work being undertaken in this second round. Phase II is due to end in the in the second half of 2020, covering and evolving all the aspects to define the risk calculation and impacts of climate risks. We will provide further commentary on our participation in due course.

Climate change related financial risks

As mentioned above, climate risk is identified in the Santander Group Risk Framework as a transversal risk that can be an aggravating factor for the types of traditional risks managed by the Group: credit, market, operational (including reputational risk).

In order to identify the vulnerability of the Group's exposures to climate change, we have adopted the classifications used by TCFD, and we consider that there are two primary sources of climate change related financial risks: physical and transition[1].

Physical risks resulting from climate change can be event driven (acute) or longer-term shifts (chronic) in climate patterns:

- **Acute** physical risks include increased severity of extreme weather events, such as drought, hurricanes, or floods;
- **Chronic** physical risks include changes in precipitation patterns and extreme variability in weather patterns, rising mean temperatures, chronic heat waves or rising sea levels.

Some examples of how physical risk may materialise in a financial impact are:

- Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)
- Reduced revenue and higher costs from negative impacts on workforce (e.g., health, safety, absenteeism);
- Write-offs and early retirement of existing assets (e.g., damage to property and assets in "high-risk" locations);
- Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants);
- Changes in wind patterns impacting energy production capacity;
- Agriculture impacts (crop production, irrigation);
- Increased capital costs (e.g., damage to facilities);
- Reduced revenues from lower sales/ output;
- Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations.

Transition risks refer to actions brought on to address mitigation and adaptation requirements related to climate change, and they can fall into various categories such as policy, technology, and market changes:

- **Policy actions** generally fall into two categories—policy actions that attempt to constrain actions that contribute to the adverse effects of climate change or policy actions that seek to promote adaptation to climate change. The risk associated with and the financial impact of policy changes depend on the nature and timing of the policy change.
- **Technology risk** arises from improvements or innovations to support the transition to a lower-carbon, energy efficient economic system that can have a significant impact on companies to the extent that new technology displaces old systems and disrupts some parts of the existing economic system.
- **Market risk** may manifest through shifts in supply and demand for certain commodities, products, and services as climate-related risks and opportunities are increasingly taken into account.

1. Companies are also open to legal liabilities that may arise through claims being brought before the courts by property owners, municipalities, states, insurers, shareholders, and public interest organizations for reasons for such as: failure of companies to mitigate impacts of climate change, failure to adapt to climate change, and the insufficiency of disclosure around material financial risks. Although currently not widespread, as the value of loss and damage arising from climate change grows, litigation risk is also likely to increase. Climate change has been identified as a potential source of reputational risk tied to changing customer or community perceptions of an organization's contribution to or detraction from the transition to a lower-carbon economy. These potential risks are not included in the heat map.

Some examples of how transition risk may have financial impact are:

Policy:	• Increased operating costs: carbon-pricing mechanisms to reduce GHG emissions, shifting energy use toward lower emission sources, adopting energy-efficiency solutions, encouraging greater water efficiency measures, and promoting more sustainable land-use practices.
	• Write-offs, asset impairment, and early retirement of existing assets due to policy changes[1].
	• Increased costs and/or reduced demand for products and services resulting from fines and judgments.
Technology:	• The development and use of emerging technologies such as renewable energy, battery storage, energy efficiency, and carbon capture and storage will affect the competitiveness of certain organizations, their production and distribution costs, and ultimately the demand for their products and services from end users.
	• Write-offs and early retirement of existing assets.
	• Reduced demand for products and services.
	• Research and development (R&D) expenditures in new and alternative technologies.
	• Capital investments in technology development.
	• Costs to adopt/deploy new practices and processes.
Market / Distribution shifts:	• Reduced demand for goods and services due to shift in consumer preferences.
	• Increased production costs due to changing input prices (e.g., energy, water) and output requirements (e.g., waste treatment).
	• Abrupt and unexpected shifts in energy costs.
	• Change in revenue mix and sources, resulting in decreased revenues.
	• Re-pricing of assets (e.g., fossil fuel reserves, land valuations, securities valuations).
	• Reduced revenue from decreased demand for goods/services or from decreased production capacity (e.g., delayed planning approvals, supply chain interruptions).
	• Reduced revenue from negative impacts on workforce management and planning (e.g., employee attraction and retention).
	• Reduction in capital availability.

Classification of climate related risks: a risk based climate taxonomy & heat map

Santander has developed an internal Risk Taxonomy and a Heat Map: the taxonomy identifies sectors that are exposed to climate change risks through physical and/or transition impacts; the heat map assesses each sector's climate related vulnerability on a five level scale. (VERY HIGH HIGH MEDIUM MODERATE LOW). This risk classification, complemented with exposure data for each of the sectors and geographies is the starting point for quantitative and qualitative measurement of the most relevant climate change related risks, and will be used to evolve relevant risk metrics and to inform decision making on climate change related risks for the selected sectors and customers.

1. For example "stranded assets", generally defined as "those investments which are made but which, at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return, as a result of changes in the market and regulatory environment."

Taxonomy sectors

The sectors included in the taxonomy follow the guidelines issued by the TCFD.

Energy

- Coal
- Electric Utilities
- Oil & Gas

Transportation

- Air freight
- Automobiles and components
- Maritime transportation
- Passenger Air transportation
- Rail Transportation
- Trucking services

Materials and Buildings

- Capital Goods
- Chemicals
- Construction Materials (incl. Cement & Steel)
- Metals and Mining (excl. Coal)
- Real Estate Management and development (excl. retail mortgages)

Agriculture, Food & Forest Products

- Agriculture + Tobacco
- Beverages
- Packaged foods and meats
- Paper and forest products

The heat map considers various types of potential risks for both physical and transition risk and provides an expert judgement on the vulnerabilities of each taxonomy sector to those risks.

For **physical** risks six **climate related "hazards"** have been identified. These are based on the work being carried out within UNEP FI in which Santander is an active participant:

Drought (& Water Stress)	Drought: typically levels of precipitation below long term averages.
	Water Stress: decreased net availability of water for use - i.e. water stress - caused by demand exceeding the supply of water within the relevant hydrological system or area.
Flood	Covers pluvial (i.e. surface water), fluvial (i.e. riverine) and groundwater flooding are covered under this factor.
Extreme temperatures	Extreme heat is a period of high temperatures and relative humidity relative to local climatological conditions.
	Extreme cold is a period of weather that is distinguished by marked cooling of the air over an area. Ice and snow events can occur as a result of air temperature below freezing.
Fire	Burning events that destroy land, crops and infrastructure caused both naturally and through human intervention.
Storms/Cyclones and storm surges	Large-scale weather systems that form over oceans and seas, with high wind speeds and precipitation rates.
Sea level rises	Average long-term global rise of the ocean surface measured from the centre of the earth as derived from satellite observations.
	Relative sea-level rise refers to long-term average sea-level rise relative to the local land level, as derived from coastal tide gauges.

Physical risks scale levels

Each taxonomy sector has been given an overall scale level that blends the sector vulnerability to the combined hazards on a generic basis and in one single time horizon: today[1]. Vulnerability is calibrated to severe (very high), significant (high), moderate (medium), temporary (moderate) or minimal (low).

For **transition** risks, four **risk factor categories** have been selected linked to the transition risk categories of Policy and Legal, Technology and Market described above:

Taxonomy sectors

Air Pollution / Emissions regulations (Policy & Legal)

Carbon Pricing (Policy)

- Enhanced emissions-reporting obligations
- Mandates on and regulation of existing products and services
- Exposure to litigation

Technology shifts / Stranded Assets[2] (Technology)

- Substitution of existing products and services with lower emissions options
- Unsuccessful investment in new technologies
- Costs to transition to lower
- emissions technology

Market/Distribution shifts (Markets)

- Changing customer behaviour
- Uncertainty in market signals
- Increased cost of raw materials
- Shifts in consumer preferences
- Stigmatization of sector
- Increased stakeholder concern or negative stakeholder feedback

Transition risks scale levels

Each taxonomy sector has been given an overall scale level that takes into consideration its vulnerability to the combined transition risk factors described above on a medium to long term horizon. Vulnerability is calibrated to severe (very high), significant (high), moderate, (medium), small, but linked to a very high or high sector (moderate) or positive contributor to a low-carbon economy (low).

Practical application of the taxonomy and the heat map to the material risks.

We have applied the taxonomy and heat map to exposures from the Commercial Banking and wholesale Corporate and Investment Banking businesses, and the Retail Mortgages, which has provided a first credit risk based view of the materiality of these sectors on the total Group balance sheet and a basic tool to manage the evolution and concentration in climate change related transition and physical risks, by sectors and geographies. The results of this materiality assessment are being used as an input for the measurement of potential financial impacts as described below.

Sensitivity, Scenario Analysis and Stress Test.

Our quantitative financial impact assessment is undertaken in incremental steps. A first step is to calculate the sensitivity to transition risks of the PDs and LGDs of the customers in the most vulnerable sectors, and to measure the effects of physical risk events on the loan to value of properties in real estate and mortgage portfolios. A second step is to apply scenario analysis, selecting different climate scenarios and risk factors, identifying key drivers by sector and subsector and other relevant aspects important for the calculation of impacts. That information, together with a comprehensive segmentation of borrowers based on qualitative climate assessment, is integrated into the Transition and Physical risk methodology to quantify both risks. A final calibration is conducted on the model to ensure that it is performing as expected. The ultimate goal is to include these climate scenarios, risk drivers and methodology into the existing credit models to determine the climate impacts across portfolios with new climate driven PDs or LGDs.

This work will culminate in stress testing, which is a key element in risk management. However there are issues that need to be resolved such as timeframe horizons, assumptions, macro variables affected, or correlation between risk factors to

1. The scale levels do not take into account future changes to weather patterns. Frequency of weather patterns as a result of climate change are included in the scenarios that are used for stressing exposures.
2. Stranded Assets: "those investments which are made but which, at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return, as a result of changes in the market and regulatory environment".

name a few. These issues are common for the industry and are also within the scope of UNEP FI as part of the development of minimum standards to implement stress testing.

Reputational Risk

Climate change can also result in reputational risks from stakeholder pressure, particularly in relation to fossil fuel financing. As can be seen in chapter 3, our exposure to this sector is lower than most of our peers. Furthermore, we actively engage with NGOs on climate related issues, participating in studies and responding to specific requests.

Operational risk

Santander Group's model for business continuity management sets out principles, governance, processes and instruments for the business continuity management system. This management system identifies the potential impacts and sets out the protocols to assure the capacity for effective response, so as to minimise the impact of a possible interruption in business operations.

Through our operational risk assessment, which is part of the management and control process of the operational risk of the Group, we identify and monitor the relevant losses that may arise in our day to day business. These include losses stemming from physical damage that can derive from climate change like hurricanes, floods, etc…and for which we have in place mitigation actions to minimize their impact.

Metrics and Targets

We disclose performance on climate related metrics and targets and our progress on these, regarding both, our financing activity and our own operations.

In relation to our commercial activity we have set a green finance target to raise and facilitate 120Bn euros between 2019 and 2025 and 220Bn euros between 2019 and 2030. This includes Santander's overall contribution to green finance: project finance, syndicated loans, green bonds, capital finance, and export finance, advisory and other products to help our clients in the transition to a low carbon economy.

Santander has also joined the UNEP FI Collective Commitment on Climate Action (CCCA) towards setting and publishing sector-specific, scenario-based targets for portfolio alignment with the Paris Agreement goals. Further below we provide an initial assessment of our portfolios in relation to the Paris Agreement on climate.

In addition we disclose a number of climate-related metrics relating to business performance, such as our position in market league tables showing the number of deals; total financing of most relevant climate financial services (such as financing of renewables, green bonds, etc); and emissions avoided from renewable energy financing.

As many of these metrics are not yet standard in the industry, in the interest of transparency this report provides additional information and disaggregation of the metrics where possible. Our progress is presented in chapter 3.

We continue to disclose our scope 1, 2 & 3 emissions data. Our approach incorporates the management and reduction of scope 1 and 2 emissions, and we have committed to source 100% of electricity from renewable sources by 2025[1]. Furthermore, we have committed to become carbon neutral[2] by offsetting all the emissions generated by our own operations from 2020 onwards. Further information on how will this be implemented is included in chapter 4.

Assessing our portfolios in relation to the Paris Agreement on climate

During 2019 we started implementing measures to fulfil the Collective Commitment on Climate Action. A key action was our participation, along with 16 other banks, in the PACTA (Paris Agreement Capital Transition Assessment)[3] pilot led by 2º Investment Initiative (2Dii). This internationally recognised methodology allows banks to compare the alignment of their corporate lending portfolios with 2°C benchmarks.

It is a science based approach that uses scenarios to provide valuable information to banks working on steering their portfolios towards alignment with the Paris Agreement on climate. The methodology focuses on high climate impact sectors including fossil fuels (oil & gas, coal),

1. In those countries where it is possible to certify renewable sourced electricity for the properties occupied by the Group.
2. The commitment includes all scope 1 and scope 2 emissions and scope 3 emissions from business travel and commuting.
3. PACTA: this methodology uses asset level performance metrics, including forward looking performance based on confirmed plans from companies in relation to future performance changes to these assets and contrasts this scenarios from the International Energy Agency to identify Paris aligned transitions paths.

power, automotive, cement, steel, and shipping. The pilot was undertaken using the Santander Corporate and Investment Banking (SCIB) portfolio. Sectors covered by the methodology represent 31% of the entire SCIB portfolio.

Focus on fossil fuels and power sectors

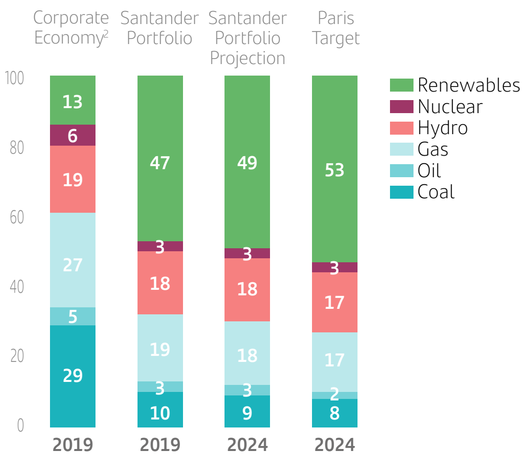
We provide here more detailed information on the results from two of the key climate impact sectors, fossil fuels and power.

The initial analysis shows that against today's Corporate economy[1] our portfolio compares favourably - in fossil fuels with lower coal exposure, and in power with a high exposure to renewables energy. Santander's portfolio projected to 2024 is broadly in line with the mix of technologies in the International Energy Agency scenarios to align to Paris targets[2]. To remain aligned with the Paris targets beyond 2024, we would need to shape our portfolio and engage with our clients so that the share of renewables and gas increases while the share of coal falls. The Santander portfolio projection is based solely on confirmed plans by companies in our portfolio with no additional intervention.

Santander also assessed its automotive and cement portfolios. While further analysis is required, an initial view of the automotive sector reflects the facts that the main car manufacturers are still largely dependent on internal combustion engines and their growth in hybrid and electric vehicles needs to accelerate to align with the IEA SDS scenario. From the initial analysis undertaken on cement manufacturers, and based on GHG intensity, Santander's portfolio broadly follows the pathway set by the IEA SDS scenario.

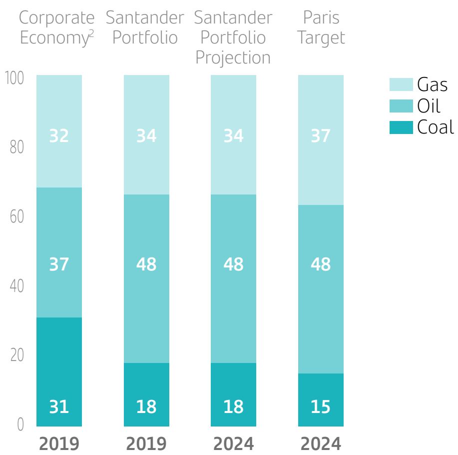
We will continue to perform scenario based analysis going forward, to inform how to steer our portfolios to be aligned with the Paris Agreement on climate, and achieve our Collective Commitment on Climate Action and corresponding internal targets. We have joined UNEP FI's CCCA working groups to develop and exchange knowledge and experience as well as work together towards harmonizing alignment methodologies. On PACTA our work plans include an updated portfolio analysis of our wholesale exposures under the refreshed methodology published by 2Dii.

Power



Santander will continue to undertake scenario based analysis to inform its decisions to meet the Collective Commitment on Climate Action

Fossil Fuels



1. Corporate Economy: represents the aggregate/combined production of all assets in the 2Dii database, which captures approximately 70% of total world CO2 emissions (CO2 is the largest greenhouse gas (GHG) contributor to human induced climate change). Considering the inclusion of other GHG (such as nitrous oxide and methane - relevant in agriculture), the database captures approximately 60% of total GHG emissions. Based on data from the 2018 World Energy Outlook from the International Energy Agency.
2. Paris targets: This is a suggested trajectory for Santander portfolio where every technology attributed to the portfolio is set on the rate of change defined by the International Energy Agency scenarios.

3. Financing the future

Sustainable finance and Climate finance

According to the International Monetary Fund, Sustainable finance is defined as the incorporation of Environmental, Social, and Governance (ESG) principles into business decisions, economic development and investment strategies. Within sustainable finance, Green Finance and, concretely, Climate finance refers to the financing of assets or technology towards climate mitigation (reduction of GHG emissions volume) or climate adaptation.

It is well established that sustainable finance can generate positive impacts on society. Efforts to promote ESG considerations in finance started some 30 years ago and have accelerated more recently, supported by different tailwinds: increased consumer interest, evolving investor's attention to ESG factors and response to different policy-driven actions. Notwithstanding, business investment in ESG may lead to a more motivated workforce, greater trust between firms and stakeholders, or less firm-level tail risk from carbon emissions (IMF, Global Financial Stability Report, October 2019).

As mentioned before, the OECD estimates that, globally, $6.9 trillion a year will be required to meet Paris Agreement goals by 2030. Public sector resources will not be sufficient and therefore, mobilisation of institutional and private capital will be necessary. In this regard, it is expected that blended finance can also help bridge the investment gap for the SDGs, ensuring no one is left behind.

Blended finance is being considered as an approach aiming at attracting commercial capital towards projects that benefit society while providing financial returns to investors. For blended finance to work effectively, a common policy framework and guidance are essential.

Santander approach to climate finance

Finance is seen as a critical enabler of transformative improvements in existing industries towards a low carbon economy.

Banco Santander is fully committed to support the climate change goals of the 2015 Paris Agreement. In 2019, we set ourselves the ambition to raise or facilitate the mobilization of €120bn between 2019 and 2025 in green finance, and €220Bn euros between 2019 and 2030, showing our aim to accompany our clients in the transition towards a low carbon economy. As already reported, we raised and facilitated €18.6bn of Green Finance in 2019, which represents an 11% increase over 2018 and 9% increase vs initial 2019 budget. Additionally, in 2019 we joined the UNEP FI Collective Commitment on Climate Action towards setting and publishing sector-specific, scenario-based targets for portfolio alignment with the Paris Agreement goals.

According to the EU Technical Expert Group, while expansion of the low-carbon, resilient economy is essential, the most substantial contribution and central challenge to the EU's environmental objectives will be from transitioning existing activities to a more sustainable footing. In this regard, Banco Santander's approach, as mentioned above, will be towards not only financing what is green, but also be a partner for our clients in their transition and contribute to greening the economy.

We are in a stage of further developing our Sustainable and Green finance proposition across the Group, acknowledging different needs and speed of this transition between business and geographies that also respond to diverse levels of customer appetite and varied degree of development of related regulation and policy.

We are working to further enable investments with positive environmental impact through (1) the offering of specific products, targeting selected types of investment sometimes including price bonification or other value added services and (2) our general purpose lending, standard credit or products that are used later by the customer towards green assets. In 2019, Santander has

"The challenge is not simply to finance only what is already green, but to green the rest of the economy."

Ana Botín, Group Executive Chairman

made great progress in the development of an internal Green Book compiling all specific green features that are incorporated in the product offering to customers, and an internal classification to identify ESG in the general purpose lending. We are leveraging on international policies such as the EU Taxonomy and other common standards such as the Green Bond principles and the Social bond principles. These tools will enable us to measure the share of lending meeting ESG criteria.

In 2019 a Global Sustainable Bonds Framework was developed in line with the Green and Social Bond Principles 2018. This framework is aligned with and supports our Responsible Banking strategy and reflects our intention to deploy additional capital for green, social and sustainable projects. This Global Sustainable Bonds Framework enables the issuance of Green Bonds, Social Bonds and Sustainable Bonds that align the finance-raising activities with sustainable development and our commitment towards a more inclusive and sustainable growth.

We issued our first green bond for €1,000 million as a starting point for a global plan on sustainable emissions. Our inaugural green bond offering was oversubscribed 5.5 times, reflecting both strong investor interest in green products and the market's confidence on Santander's credit quality.

The Second Party Opinion report by Vigeo Eiris highlighted Santander's good ESG performance, with "advanced" performance in the Environment pillar and a "good" (close to advanced) performance in both the Social and Governance pillars.

The net proceeds will be divided between existing wind and solar assets on Santander balance sheet and new assets of the same nature that will be added. The re-financing share will be less than 50% during the term of the bond. In 2020 Q1 we have continued with issuances, with 1st Green bond in SCF Nordics for SEK 1bn (€95M).

We have issued a green bond in the amount of EUR 1 billion,in June 2020, which will be used to finance and refinance renewable wind and solar energy projects. After last October's issue, this is the second issue we have made of this type of instrument under the Global Sustainable Bond Framework.

On the risk side, on top of incorporating risks arising from climate change as just mentioned on section 2, we continue integrating environmental & social risk criteria into our lending decisions. Since 2009 when we signed Equator Principles, we have been assessing to what extent the projects that we are financing respect the environment.

Corporate and Investment Banking

Santander Corporate and Investment Banking (SCIB) has the ambition to become a reference in Sustainable Finance providing ESG solutions in our markets.

SCIB is leveraging on a solid track record in renewables and strong product capabilities across markets, and is now evolving towards fully integrated ESG advisory services across all sectors and products, servicing an increasing appetite and demand from corporates and investors.

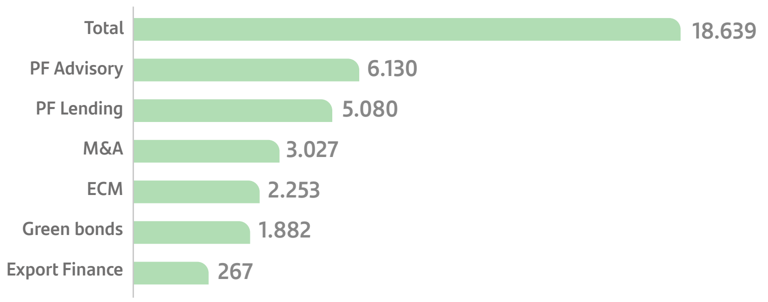
ESG appears to be increasingly at heart of our clients' strategies nowadays, climate change is affecting all sectors, and many clients will probably have to modify their business models towards more sustainable activities to remain in the market. Having a strong partner in this field will be key to build up the right strategy going forward and SCIB has clearly the ambition to be the trusted advisor of our clients in assisting them in this long journey, providing suitable ideas and financing solutions to achieve this transition.

The Senior Executive Vice-President and Global Head of SCIB is a member of the Inclusive and Sustainable Banking Steering and as has attended the Board Responsible Banking Sustainability and Culture Committee twice to update on progress on the SCIB ESG agenda.

SCIB is currently the main contributor to our Green Finance target, and in 2019 SCIB raised and mobilized €18.6bn with the following split:

SCIB's contribution to green finance target

Sustainable Finance volumes by product (M€)



This information was obtained from public sources, such as lead tables from Dealogic or TXF. All roles undertaken by Banco Santander in the same project are accounted for. Other aspects related to sustainable finance in a social manner, such as financial inclusion or entrepreneurship, are not included.

Renewable energies

Santander continues to be a global leader in renewable project finance. Globally and across Europe and Middle East in renewable project finance volumes, whereas we hold second positioning in Americas, according to Dealogic League tables.

Santander has consistently been the leading renewables financer on a year by year basis ranking among Top 3 by number of deals and Top 5 by deal value since 2010.

Global Renewable Energy Project Finance Volume by Mandated Lead Arranger FY 2019 (Dealogic)

Rank	Mandated Lead Arranger	Vol $m	(#) Deals	% Share*
1	**Santander**	**5,771**	**102**	**7.1**
2	Bank 1	4,370	42	5.3
3	Bank 2	3,768	46	4.6
4	Peer 1	3,663	42	4.5
5	Bank 3	2,973	49	3.6
6	Peer 2	2,949	38	3.6
7	Bank 4	2,602	24	3.2
8	Peer 3	2,439	33	3.0
9	Bank 5	2,434	29	3.0
10	Bank 6	2,060	29	2.5

Santander peers include: BBVA, BNP, Citigroup, Credit Agricole, HSBC, ING, Scotiabank, Unicredit
* Santander also lead in Asset Finance rankings according to Bloomberg 2019 2H league tables for clean energy, both among lead arrangers and syndicated lenders.

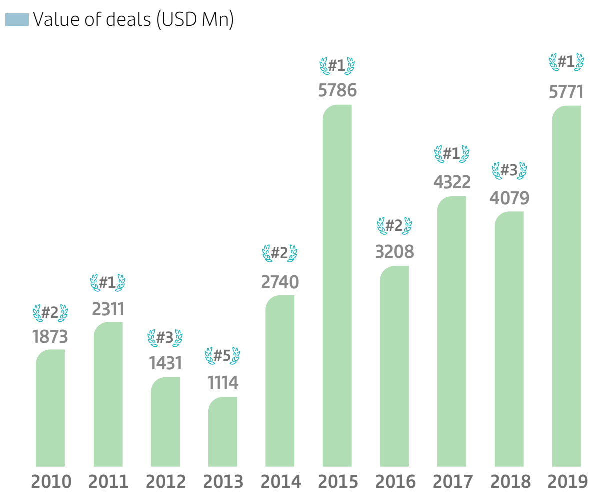
Highlights

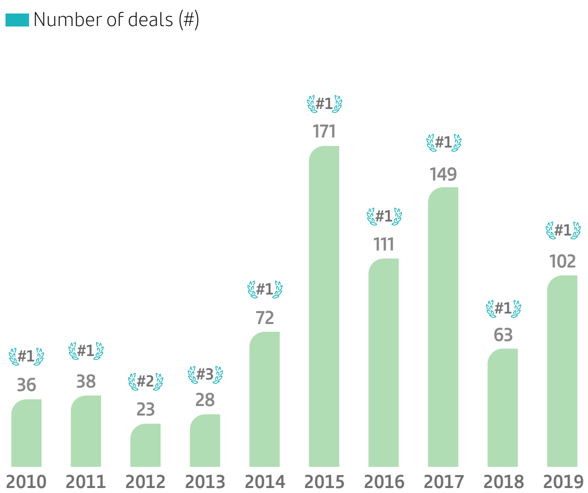
1. Santander has consistently been the leading renewables financer

2. Ranking in accumulated performance #1 by number of deals and # 2 by deal value.

3. Santander has been the only bank among its peers to always be on the top 10 reneable financer in both volumes and number of deals

4. Santander has participates in 793 renewable energy finance deals, investing a total of EUR 32 billion in the last decade





Source: Dealogic League tables Role: Mandated Lead Arranger Sectors: Wind + Renewable Fuel (solar, hydroelectric, biomass, geothermal and other

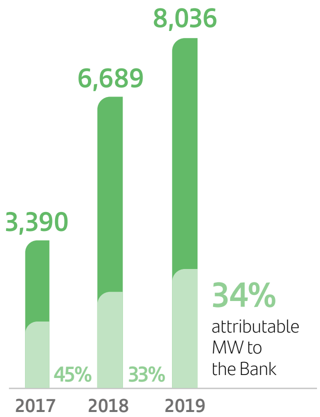
In 2019, we helped finance greenfield renewable energy projects with a total installed capacity of 8,036 MW, thus avoiding the emission of 63 million tons of CO_2[1].

In addition, we also contributed to the expansion, improvement or maintenance of existing renewable energy infrastructure projects (brownfield), with a total installed capacity of 16,785 MW, we provide this additional level of transparency on our financing activity for renewables in the charts below.

Our total portfolio of renewable energy project finance (including greenfield and brownfield) at the end of last year totaled €10.03 billion, approximately half of the bank's total project finance portfolio. The renewable projects are spread over 349 transactions.

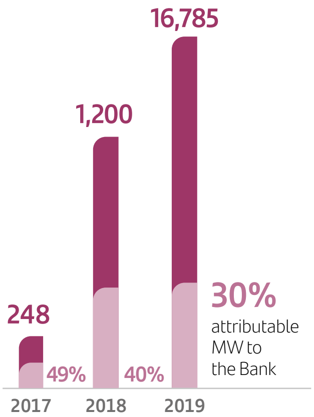
Financing of renewable energy greenfield

(MW Financed)[A]



Financing of renewable energy brownfield

(MW Financed)[A]



Breakdown of MW financed by type of renewable energy

(greenfield and brownfield)

	2017 Greenfield	2017 Brownfield	2018 Greenfield	2018 Brownfield	2019 Greenfield	2019 Brownfield
Wind energy	81%	--	77%	--	77%	35%
Solar energy	19%	100%	22%	100%	22%	54%
Other[B]	--	--	1%	--	1%	11%

Greenfield Brownfield

Breakdown of renewable MW finance by country in 2019[C]

(greenfield and brownfield)

	USA	United Kingdom	Spain	Chile	Brazil	France	Argentina	Mexico	Portugal
Greenfield	3,135 MW	1,164 MW	1,312 MW	727 MW	839 MW	480 MW	256 MW	117 MW	--
Brownfield	2,012 MW	1,192 MW	2,365 MW	--	2,162 MW	--	--	900 MW	1,032 MW

A. In the chart, the light colors represent the attributable MW to the Bank according its participation percentage in each project. In 2019 this represents 34% of the total for greenfield and 30% for brownfield. B. Include biomass for 2018 and hiydroelectric for 2019. C. Others: The Netherlands (6MW) greenfield.

Examples of renewable energy and energy efficiency projects in SCIB:

- In 2019, we arranged a €150 million bilateral subscription line for Mirova, an asset manager that will use this credit line to finance renewable energy assets as well as electrical mobility projects.
- We have also participated in the financing of a credit line for Fibra Uno, the first and largest Real Estate Investment Trust in Mexico, managing 8.7MM m^2. The operation was signed for $21,350 million pesos which margin is linked to the credit rating of the REIT and the evolution of a sustainable indicator linked to the intensity of electricity consumption of the managed assets, expressed in Kwh per occupied square meter.

To know more about SCIB projects

- In 2020, we keep on expanding our renewable energy and energy efficiency project financing, completing one of the largest financings of the Spanish renewable energy market worth €567.8 million, including a €34 million senior secured class A1 bonds, €234.1 million senior secured class A2 bonds both due June 2038 and a 10-year €299.7 million bank loan.
- We have acted as sole arrangers and sole lead managers of the first Green RMBS issued in Europe, outside the Netherlands. Proceeds from these Green Bonds will be applied towards the origination of Green Mortgages in Portugal and Spain, a transaction backed by a € 385 million portfolio to individuals for the purchase of their 1st residence.

1. Emissions which the MW financed in 2019 will prevent over the course of the projects' useful lifespans. International Energy Agency emissions factors (source updated in 2019 with data from 2017) have been used.

ESG products and capabilities

Widening the scope, and taking into account an ESG perspective, Santander is also top 5 on Green and ESG loan volumes as partcipant according to Refinitiv, having participated in 7 out of the 10 largest Green/ sustainable deals in 2019. For more information, see Annex 2. League Tables.

This position goes along with the development of strong product capabilities and expertise, both areas in which the SCIB division has made great progress along last year.

In 2019, we have developed a framework to issue sustainable guarantees, which was audited by VIGEO, and we are exploring other frameworks that would enable us our product offering.

Being able to help our customers goes along with be seen by them as partners to help them achieve their sustainable goals and supporting them in their transition towards a more responsible, social and environmentally sustainable model.

SCIB is carrying out and will continue to carry out trainings to provide our employees with the capabilities to help our customers in their transition towards responsible investment. For example: Bank 2030 training session or Sustainable Finance in times of Covid.

Global Green and ESG Loans Volume Participant - 2019 YE (Refinitiv Loan Connector) (By volume)

Rank	Lead Bank	Vol (USD m)	Nº Deals
1	Peer 1	102,364	88
2	**Banco Santander SA**	**69,353**	**59**
3	Bank 1	65,369	50
4	Peer 2	64,094	43
5	Bank 2	56,916	29
6	Bank 3	54,471	25
7	Bank 4	51,739	34
8	Peer 3	50,994	41
9	Bank 5	47,815	33
10	Bank 6	44,158	27

The Responsible Banking team is engaging with SCIB and meeting with clients to develop ESG products and services that help our customers in the transition towards a more sustainable model

Fossil fuel financing

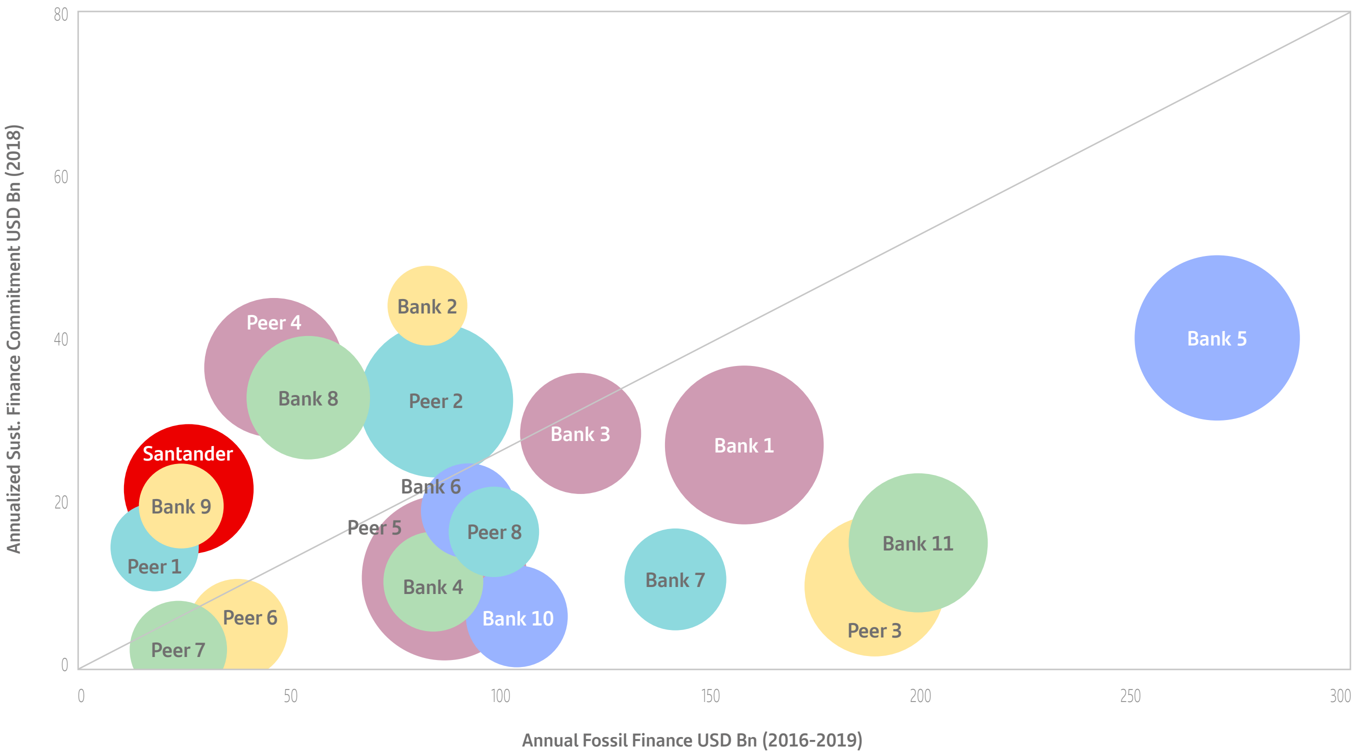
In July 2019, the World Resource Institute performed an exercise to analyse 23 of the world's 50 largest private sector banks, comparing their sustainable finance commitments with their fossil fuel financing derived from the Banking on Climate Change Report. We have updated the information using 2019 figures, including the 2019 Banking on Climate Change Report[1] and incorporate Santander in the analysis, to show our relative position versus our peers and other banks.

Santander Sector policies

Santander´s sector policies cover issues such as the financing of fossil fuels and protecting against deforestation. Our policies are reviewed on a yearly basis. Further information can be found in Chapter 2 TCFD implementation progress risk management or visit our Corporate Policies website.

1. Banking on Climate Change – Fossil finance report 2019, by: Rainforest Action Network, BankTrack, Indigenous Environmental Network, Oil Change International, Reclaim Finance & Sierra Club.

Annual Fossil Fuel Finance

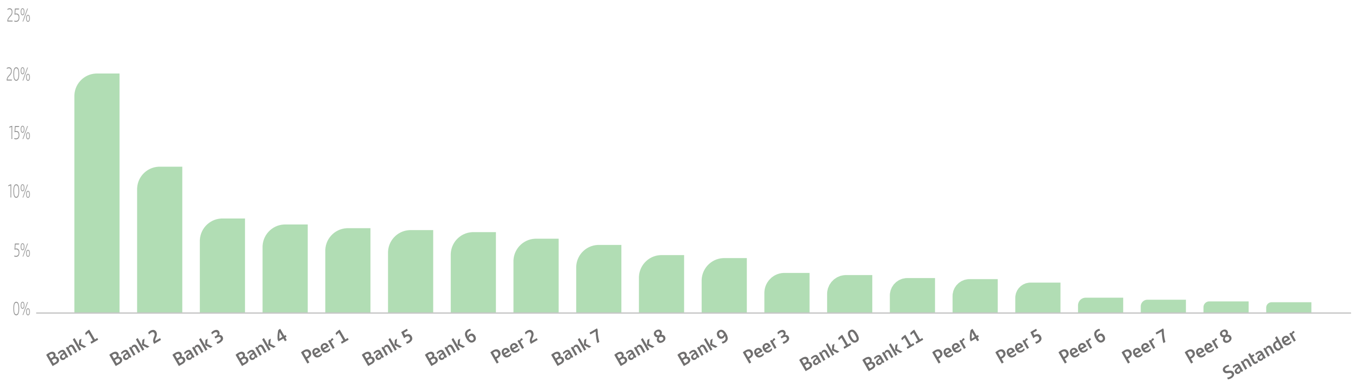


Bubble size shows the bank size by average of total assets.
Santander peers include: BBVA, BNP, Citigroup, Credit Agricole, HSBC, ING, Scotiabank, Unicredit; and the other banks that were part of the WRI 2018 analysis are: Bank of America, Bank of Montreal, Barclays ,Goldman Sachs, JPMorgan Chase, Morgan Stanley. RBC, Société Générale, Standard Chartered, TD, Wells Fargo.

As a complement to our leadership position on Green financing, Santander also ranks low in volumes of financing sectors that have a negative impact on climate change, such as fossil fuels.

Compared to the 23 banks and peers analysed by WRI last year, Santander is the bank with the lowest share of fossil fuel financing over total credit in 2019:

% Annual Fossil Fuel Finance/ Total Credit 2019



Data and sources: % annual fossil fuel Finance / total credit 2019 comparing Santander with the 23 Banks that were analysed by WRI last year.
Data from 2020 Banking on climate change https://www.ran.org/bankingonclimatechange2020/

According to Banktrack's league table, Santander is placed in 29 out of 35 banks in absolute terms in financing fossil fuels and in place 33 out of 35 when considering a relative measure of total credit approved.

Sustainable Infrastructure

Infrastructure is one of the main social needs, but that can also have a positive/ negative environmental effect. A pathway compatible with Paris Agreement requires relevant changes in of infrastructures.

Making progress with our commitment to contributing to the transition towards a more sustainable and responsible economy, and aligned with the United Nations Principles of Responsible Banking, in 2019 we have developed a pilot project to identify the impacts caused by our investments in infrastructure, and to find out which projects are associated with them.

There is not a common definition for 'Sustainable infrastructure'. Therefore, in order to identify those projects that generate negative externalities we have assessed them in accordance with taxonomies, taking into account the real needs of countries and the measurement of impacts caused to society, the economy and the environment. The objective is that, after diagnosis, we can include this assessment in the decision making process so to direct our investments towards those projects that generate the greatest positive impact on society.

We have started working with the methodology developed by the UNEP FI Impact working group, and its application to project finance, assessing positive and negative impacts of individual projects. In working with this newly developed methodology we have also looked into incorporating other developments, namely around taxonomies.

The first phase of this methodology consists of analysing, for each country, the relevance of 22 different factors in different areas (air quality, biodiversity, employment, health, education, etc.) from a sustainable development perspective. In the second phase, we analyse both the positive and the negative impacts (both direct and indirect) of a particular sector using UNEP FI's IP Impact Radar, as it applies to a specific country. Cross-referencing this information with the project finance portfolio data of each country, we are able to quantify the impact of our portfolio investments in such country.

Using different global and local taxonomies, we are then able to refine our understanding of the impact of our activities. Ultimately, this approach will help us make better decisions while directing our investments towards those projects that generate the greatest positive impact on society and the environment.

GISD Global Investors for Sustainable Development Alliance

Santander is an active member of the Global Investors for Sustainable Development Alliance (GISD Alliance), a working group under the UN umbrella created as part of UN's strategy for Financing the 2030 Agenda for Sustainable Development. The group is aimed at leveraging the insights of private sector leaders to remove impediments and implement solutions for mobilizing resources for sustainable development and it will focus on facilitating solutions relating to, inter alia, increasing the available supply of long-term investment for sustainable development, realizing SDG investment opportunities in developing countries or enhancing the impact of private investment on sustainable development. In particular, SCIB is collaborating on analysing how to realize investments in Colombia in the clean energy and water and sewage sectors, as well as how to structure SDG-linked financings in the 4G/%G road programme. SCIB is also involved in the call for action around COVID bonds.

Helping to manage and protect natural resources

Mitigating climate change is not just a question of reducing greenhouse gas emissions, but also requires a sustainable management of natural resources. Santander has set policies and procedures to manage risks related to deforestation and undertakes a range of initiatives to help us contribute to the protection of natural resources:

- **Managing risks from financing soft commodities:** Santander's commitment to conservation of the natural resources is also reflected in our soft commodities policy, which is aligned to the Soft Commodities Compact (Annex 1) and governs our policy on providing financial products and/or services to customers with an impact on tropical forests, tropical savannahs, and savannah biomes or located in High Risk Geographies[1]. Our soft commodities policy prohibits financing to developments in forested peatlands in High-Risk Geographies; projects involved in the extraction and sale of native tropical wood species not certified to Forest Stewardship Council (FSC); and projects located in areas classified as Ramsar Sites, World Heritage Sites or by the International Union for Conservation of Nature (IUCN) as categories I, II, III or IV.

- **Environmental crime as financial crime:** The principle of nature conservation also extends to other units within the group, including Financial Crime Compliance. The Financial Crime Compliance team specifically calls out the environment and illegal deforestation in its framework and policies, not only because of the large sources of revenue that organized crime draw from these activities, but because crimes like illegal deforestation have a significant impact on carbon sequestration. Sectors directly exposed to timber trafficking risk or with supply chains exposed to illegal logging risk are now considered "high risk sectors" that require increased due diligence, and customer screening and trade finance screening tools now include specific terms related to environmental crimes to flag customers or potential operations for further review.

- **Funding sustainable farming practices:** The global food system as a whole is estimated to currently contribute between one quarter and one third of total global greenhouse gas emissions. Minimising emissions from the food system is therefore a necessary element of any strategy that seeks to achieve the temperature goals of the Paris Agreement. Banco Santander has a significant business within the agricultural sector and has launched funding programmes to modernise machinery and production techniques leading to emission reduction.

Offering carbon credits in Brazil : As a further step on climate change management, Santander has been supporting Brazil's carbon credit scheme Renovabio which aims to ensure the country meets its annual decarbonisation targets. Under the scheme biofuel producers are able to issue and trade carbon credits (known as Cbios) with fuel retailers required by law to buy a certain amount of Cbios or face penalties. In 2020 Santander signed contracts with 15 biofuel producers to act as custodian of the Cbios.

Decarbonisation and Circular Economy Credit Line in Portugal : Santander Portugal has launched a Decarbonisation and Circular Economy Credit Line, which provides more favourable financing conditions for micro, small and medium companies that develop energy efficiency and circular economy projects.

Santander UK tackling illegal wildlife trade: In May 2019, Santander joined United for Wildlife's Financial Taskforce against the illegal wildlife trade as part of the Group's commitment to detect, disrupt and deter environmental crime. Later that September, Santander UK hosted a "red flags" workshop with members of the task force to share typologies related to trafficking in areas such as rhino horn and ivory, and critically, Santander emphasized the need to expand the focus to illegal logging (such as Latin American timber) as the two crimes and networks are closely related. Building off the successes and experiences of the workshop, in April of 2020 the Group's Financial Intelligence Unit released an alert to all Santander Financial Crime Compliance teams globally with keywords and typologies for the most heavily trafficked animals in Latin America. The alert provides the necessary detail to facilitate pro-active investigations by our teams in this area, especially given that the illegal wildlife trade is recognized as a major source of disease transmission from animals to humans.

1. High Risk Geographies are defined in the Soft Commodities Policy as: Any country in Africa, Argentina (only the Provinces of: Chaco, Formosa, Santiago del Estero, Salta and Tucumán) Bolivia; Brazil (only the Legal Amazon and Northeast regions); Cambodia; China; Colombia; Ecuador; Estonia; Guatemala; Guyana; Honduras; India; Indonesia; Laos; Latvia; Lithuania; Madagascar; Malaysia; Mexico; Myanmar; Nicaragua; Panama; Paraguay; Papua New Guinea; Peru; Russia; Solomon Islands; Thailand; Vietnam; and any customer stating "unknown". The High-Risk Geographies will be reviewed in light of expansion of agribusiness in new regions.

Santander Asset Management

Within the Wealth Management division, Santander Asset Management (SAM), leader in Responsible Investment solutions in Spain, continues strengthening its range of sustainable strategies and enhancing ESG product offering within their ambition of continue promoting sustainability in investments across Europe and Americas.

Governance for ESG criteria in investment decisions

Santander Asset Management has defined a framework of policies and a governance structure for the correct implementation of Sustainable and Responsible Investment strategy, which involves the application of Environmental (including Climate Change), Social and Governance (ESG) criteria in investment decisions. This governance is composed of different bodies such as the SRI governance committee, the Investment and Sustainability Committees and the SRI team, among others. The SRI Government Committee is the highest body. It is made up of - among others - (a global full-time dedicated expert team with strong capabilities both in Europe and Latam) SAM CEO and CIO, the CFO, the SRI team, and is chaired by the Head of Wealth Management. This committee is responsible for approving and supervising the SRI strategy at a global level.

Santander Asset Management has a Sustainable and Responsible Investment Policy, which is the framework that defines our SRI approach and defines the criteria, considered in the integration of ESG variables in the investment process. It also complemented by other policies such as the Engagement Policy which describes the principles followed by SAM, in relation to ESG engagement activities with investees or with those companies in which we have an interest in investing, either individually or through collaborative engagement initiatives.

Our methodology in Asset Management to measure ESG funds, incorporating climate

SAM, is exposed to a wide range of asset types and industries and has a fiduciary duty to act in the long-term interest of our clients, has identified and included within our extra financial analysis (ESG analysis) climate change related risks relevant to different sectors and business activities. Similarly, the transition to a lower-carbon economy will require a significant investment in the foreseeable future, generating new investments opportunities.

THE 3 TOP CLIMATE-RELATED RISKS CONSIDERED IN OUR PROPRIETARY ESG ANALYSIS MODEL ARE:	THE 3 TOP CLIMATE-RELATED OPPORTUNITIES INTEGRATED WITHIN OUR ANALYSIS MODEL ARE:
Regulatory risks such as the increasing price of GHG emissions,	**Development of products and services** identified as climate solutions that could represent business diversification, better competitive advantages and increased revenue,
Technology risks linked to more efficient low-carbon technologies alternatives,	**Provision of lower-emissions energy sources** which could benefit from reduced exposure to GHG emissions, reduced costs, supportive policy incentives and reputational benefits,
Market risks resulting from increased costs and shift in consumer demands, which coupled together could result in stranded assets, increasing operating costs, reduced demand from products and services and increasing cost/reduced availability to capital.	**Resource-use efficiency** through the use of more efficient production and distribution processes which may reduce operational costs, increase production capacity and increase the value of fixed assets.

Environmental factors analysed are defined upon:

- **International norms,** such as the UN Global Compact, the Sustainable Developement Goals, the Paris Agreetment, OECD Guidelines for Multinational Enterprises, EU Taxonomy, etc.

- **Standards,** such us the Global Reporting Initiative, Sustainable Accounting Standards Board, the Task Force on Climate-Related Financial Disclosures, PRI, etc.

- **Market references,** ESG Analysts, Sell side research, etc.

In addition to the above, we continuously work on the update of our ESG analysis framework in a progressive effort to evolve the analysis model and capture the latest findings and trends within the ESG space in general and climate change topic in particular. Within these scope, we are further expanding our analysis of climate-related risks.

Sustainable and responsible investment products

Santander AM is the leader in SRI management in Spain. We manage more than 50% of the assets in SRI funds in Spain, and we pioneered the launch of this type of product in the Spanish market, with more than 20 years creating SRI Investment Solutions since the launch of our first SRI fund in 1995. Our latest addition to our SRI catalogue, the Santander Sustainable range, consists of two balanced funds: Santander Sostenible 1 and Santander Sostenible 2, with different weights in equities and fixed income; and an European equity fund Santander Sostenible Acciones. In addition, we have launched the first Sustainable Bonds mutual fund by a Spanish asset manager: Santander Sostenible Bonos that demonstrates our commitment to fight climate change. This product is aimed at conservative investors, with a portfolio focusing mainly in green bonds issuances (corporate debt designed to finance green projects: clean energy, reduction of emissions...), which will be complemented with other types of sustainable bonds.

In line with the commitment of contributing to the development of society, Santander has launched, in the end of 2018, the Santander Sustentável Fund, in Portugal. A fund guided by a logic of socially responsible investment (SRI).

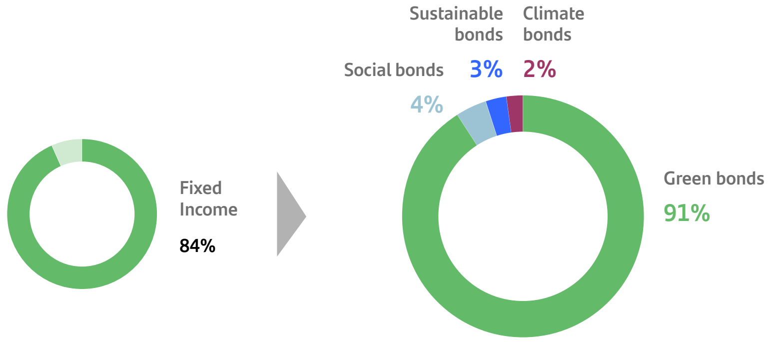
1st sustainable bond fund launched by a Spanish Asset Manager

Investment in public and / or private fixed income, mainly green bonds (90%) and to a lesser extent in other sustainable bonds (social, climate change or environmental), all of them focused on generating positive impacts on society and the environment.

Green bonds are a type of debt issued by public or private institutions. Unlike other credit instruments, the funds obtained are specifically used for the financing or refinancing of green, sustainable and socially responsible projects in areas as diverse as renewable energy, energy efficiency, clean transport or responsible waste management.

Renewable energy | Energy efficiency | Clean transport | Responsible waste management

SAM Portfolio distribution by bond type



Source: Santander Asset Management. 31 March 2020.

Santander Asset Management's commitment to SRI:

Santander Asset Management is closely monitoring regulatory developments under the EU Sustainable Finance Plan, with special focus on the EU Taxonomy, which will be a common language to assess whether investments are meeting robust environmental standards and are consistent with high-level policy commitments such as the Paris Agreement on Climate Change. We have identified the lack of data as one of the major obstacles to overcome in order to properly implement the taxonomy. This is why, we are identifying possible solutions on data availability, so we are ready to respond to the requirements for asset managers.

UN PRI

Both Santander Pensiones SA SGFP in Spain (since 2010) **and Santander Asset Management Brazil** (since 2008), are signatories to the United Nations Principles for Responsible Investment (PRI). Santander employees' pension fund in Spain is also a signatory to this initiative. Within the promotion of responsible investment practices, climate action is a strategic priority for the PRI. As part of this, the PRI introduced in January 2018, TCFD based climate risk indicators to its reporting framework.

COP 25

Santander Asset Management joined COP25 last December, becoming the only asset manager in the Spanish industry present with its own events. Santander AM organized two round tables on Sustainable Investment, in the Green Zone of the COP25. In these events the speakers discussed the increasing importance of ESG transparency for investors, as well as the relevant work carried out in Europe and the challenges the asset management industry is facing to incorporate ESG criteria into their investment processes and the great opportunity that this represents to generate value.

SRI Summit

On June 11, 2019, the first Forum on Sustainable and Responsible Investment took place, a success both for the quality of the speakers and for the large number of attendees. Miguel Arias Cañete, former EU Climate Action and Energy Commissioner opened this first edition. In its speech, he carried out an exhaustive analysis of the current and future context on the general regulatory framework of the European Union that supports the transition towards a sustainable economic model. Cristina Gallach, High Commissioner for the 2030 Agenda, also participated in the summit, highlighting the importance of the Sustainable Development Goals and the need for the private sector, and especially large companies, to support these principles. Representatives of the European Commission Technical Expert Goup (TEG) on Sustainable Finance were also present. After the success of the first summit, it has transcended borders and a first edition has already been held in Portugal.

Training

We collaborate with universities and educational centres, organising and participating in events and training days in SRI (e.g. virtual classrooms in EFPA platform, participation in UNED/ Spainsif's MOOC, etc.) We also organise internal sessions for our professionals. During these sessions, we highlight the relevance of Sustainable Development Goals and Climate Change as key drivers for promoting SRI.

Brazil

SAM's commitment in Latam

Santander Asset Management Brazil is committed to engage on climate change, being part of the network Investidores pelo Clima (Investors for the Climate) through which we have carried out a portfolio climate risk analysis for SAM Brazil Ethical fund (using PACTA tool).

In addition, SAM Brazil is the coordinator of the Sustainability working group in ANBIMA (Brazilian Market Capital Association), and under this initiative it carries out many other responsibilities, some of them directly linked to climate change such as being member of CDP Latin America Board of Directors.

International Investors Group on Climate Change (IIGCC)

In 2020, Santander Asset Management has become an IIGCC signatory, the European membership body for investor collaboration on climate change and the voice of investors taking action for a prosperous, low carbon future.

SAM ESG Score

Environmental Factors

- **Environmental Strategy:** Environmental Strategy & Systems.
- **Climate Change:** Climate Change Mitigation, Climate Change Adaptation, Products & Services - Climate.
- **Natural Resources:** Water Management & Conservation Material Sourcing, Waste Prevention & Management Products & Services.
- **Pollution Prevention & Control:** Air Pollutant Emissions Hazardous Subst, other emissions and Spills Products & Services.
- **Natural Habitats:** Biodiversity & Land Animal Welfare.

Climate change is integrated within our proprietary ESG analysis model through relevant indicators and a weighting systems that allows us to properly account for these factors within our ESG performance evaluation. We assess issuers' performance on climate change (according to its materiality in each sector) within the Environmental pillar analysis that is used to generate our ESG scores. Our analysis of climate change includes criteria such as the analysis of CO_2 emissions, emission targets, alignment with TCFD recommendations, and risks and opportunities derived from climate change. Finally, this ESG score is used in the investment selection process and portfolio management for our SRI products according to the SRI strategies applied to each of them.

Retail & Commercial Banking

Being Santander a retail bank, we work to support our customer's transition to a low carbon economy by offering products and services that meet their needs and demands.

Appetite for ESG products in retail clients is, now, not as clear or as intense as in other segments. On 2019 we focused on developing a Green Book, compiling all products across geographies that were incorporating a specific green feature, according to international standards such as the Green Bond Principles.

We are also making progress in finalizing an internal classification to measure ESG general purpose lending. This classification will enable us to identify the volume of finance towards green assets that we are facilitating in our standard credit. We are taking into account international standards such as the EU Taxonomy recently finalized, the Green Bond principles and the social bond principles.

According to this internal Green Book, we estimate that, in 2019, we facilitated close to 800 million of green financing to our retail customers across geographies.

Green Book for individuals

Green Mortgage	Mortgage to green buildings, which meet regional, national or internationally recognised standards or certifications.
Consumer loan for clean transportation	Consumer loan to purchase electric, hybrid, non-motorised (electric & standards Bikes), including in most cases preferential pricing conditions. Other features of specific products could relate to multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions.
Consumer loan for energy efficiency	Finance dedicated to improve the energy efficiency of residential buildings, including: energy storage, district heating, smart grids, appliances and products. Some credits could be given in partnership with MDBs (I.e.: BEI).
Consumer loan for renewable energy installment	Finance dedicated to the installment of renewable energies (including production, transmission, appliances and products) in the residential properties .

Green Book for SMEs/ Corporates

Loan/ Lease for clean transportation	Specific financing in format of loan or lease, for electric, hybrid, non-motorised (electric & standards Bikes) vehicles - including in most cases preferential pricing conditions. Also specific features could be targeting multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions.
Loan/ credit for energy efficiency	Finance dedicated to improve the energy efficiency of a self employed, micro or SME, leading to a reduction on CO2 consumption or emission in their businesses, including: energy storage, district heating, smart grids, appliances and products. Some lines could be supported by the government, or given in partnership with MDBs, both ways usually leading to a reduction on interest rate or a risk-sharing scheme.
Loan/ lease for renewable energy installments	Specific financing in format of a loan or a lease, to self-employed, SMEs and Corporates, to install renewable energies (including production, transmission, appliances and products) -i.e.: photovoltaic, solar panels. For Corproates, participation in syndicated facilities for projects of large volumes.
Loans for low carbon agriculture	Loans to improve the environmentally sustainable management of living natural resources and land use in agriculture, including: fostering energy efficiency in the processes, building and maintaining healthy soil; managing water wisely; minimizing air, water, and climate pollution and promoting biodiversity.
Loan to foster circular economy	Loans to promote the circular economy: Improving pollution prevention and control (including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/emission efficient waste to energy). Develop or purchase eco-efficient and/or circular economy adapted products, production technologies and processes (such as development and introduction of environmentally sustainable products, with an eco-label or environmental certification, resource-efficient packaging and distribution).
Loan for Sustainable Infrastructures	Financing to city halls or governments of sustainable infrastructure for clean and/or drinking water, waste, water treatment, sustainable urban drainage systems and river raining and other forms of flooding mitigation.

Examples of solutions from local units our Some of the outstanding solutions by country

Green mobility - Eco cars

Poland

In Poland, throughout 2019 the "Zero Emissions, Zero interest" campaign developed a 100% leasing plan for all brands of electric cars available in the country.

Spain

In Spain, in May 2019 we launched the first eco leasing for customers that need to finance the purchase of a sustainable vehicle (electric or hybrid).

Mexico

In Mexico, through a partnership with Tesla, we have increased the offer and financing of electric and low carbon emissions vehicles.

Green Mortgages and Green Buildings

Germany

In Germany, we have different financing programmes with special conditions for new houses or house refurbishment that meet certain sustainability standards (energy efficiency, renewable energy sources, reducing CO_2 emissions).

Spain and Portugal

In Spain and Portugal, we are offering green mortgages to finance acquisition of properties that meet recognized energy efficiency standards or certifications.

Renewable energies

Brazil

In Brazil, with Consórcio Sustentável we are helping customers to acquire mainly solar panels in partnership with EDP Smart (a division that brings together EDP's portfolio of smart and energy solutions, and Santander Consumer Finance). Our main target audience is customers with electricity bills over R$ 400.00 a month (around USD 75), since, in up to 6 years, or less, the investment will be paid off and electricity expenses will decrease around 90%. With rates from 0.79% per month and up to 60 months, the financing is available for residential and small businesses consumers in EDP's concession areas in São Paulo and Espírito Santo.

Spain

In 2019, we launched a line, together with BEI, for financing energy saving and efficiency projects that reduce consumption and CO_2 emissions in residential buildings. This line is based on a fixed interest rate on consumer loans for this purpose of 4.95%. In addition, we have a line for financing energy saving and efficiency projects that reduce consumption and CO_2 emissions implemented by the self-employed and legal entities in their facilities.

UK

In 2019, Santander was the 3rd largest lender among renewable energy financiers in the sector by volume (2nd by number of transactions) in the UK, and also ranked first by volume for advisory services in Europe and the UK. As part of this, Santander in the UK originated £1.09bn of debt financing to 21 renewable energy projects in 2019. We provide advisory and financing solutions for renewable and alternative energy clients across a range of renewable schemes, including onshore and offshore wind, solar and biofuel projects.

Offsetting options

In different areas and geographies of the Group we are developing initiatives that enable our customers to offset their carbon footprint. These initiatives will increase the awareness about solutions to tackle climate change and engage our customers in environmentally friendly initiatives.

SCF Norway

SCF is collaborating in Norway and rolling out collaboration in other countries with Chooose, towards offering customers the possibility to take instant climate action by offsetting their carbon footprint. The money goes to closely selected- reducing projects in developing countries replacing oil and coal with renewable energy. Like this, customers have the possibility to have a better impact on the environment and enables them to address their carbon footprint by adding a small amount to their monthly subscription.

Carbon footprint offsetting- Chile

In Chile, we have developed a methodology that estimates the Carbon Footprint for every single client based on his or her local Credit and Debit Card transactions. We then share the calculated cost of offsetting their Carbon Footprint and offer them the options of:

- Buying Carbon Credits: CarboNutral buys Carbon Credits with international certification.
- Donating to the Conservation of Chilean Ecosystems by financing specific conservation projects that are implemented by NGO's in protected areas throughout Chile.

Multilateral Development Banks

Since 2015, Mutilateral Development Banks (MDBs) have helped governments to translate SDGs into meaningful targets. Santander has a strong partnership with MDBs with over 85 financing agreements in the last 5 years.

In 2015, the international community agreed an ambitious set of commitments to solve sustainable development challenges by 2030. Since then, Multilateral Development Banks (MDBs) have helped governments to translate the SDGs into meaningful country-level targets, acting as technical assistance to bridge the finance gap and mobilize public and private resources, including commercial banks and other sources of private capital, in financing development to make SDGs a reality at the end of this decade.

Grupo Santander's strong partnership with MDBs in development projects is reflected in the signing of 85 financing agreements over the last 5 years. Many of them have been focused in supporting inclusive and sustainable economic growth through MSME finance, where our local banks and leasing companies have implemented bespoke facilities to increase funding availability, including underserved segments like young or women entrepreneurs. MDBs have also been fundamental financial partners in trade finance, sustainable infrastructure, water and energy efficiency and renewable energy projects.

Together with liquidity facilities, long term financing and co-investments, MDBs have provide our local banks with technical assistance and risk mitigation instruments that improved the risk-return profile and bankability of projects with development impact and to uncover new sustainable business opportunities.

In addition to development aspirations set by SDGs, most MDBs have raised their ambitions for addressing climate change, developing frameworks to align new lending operations with the objectives of the Paris Agreement. Some of them have already announced large commitments to scale-up the provision of climate finance as a way to accelerate the transition to low- carbon climate-resilient economies, supporting countries in achieving their NDC goals.

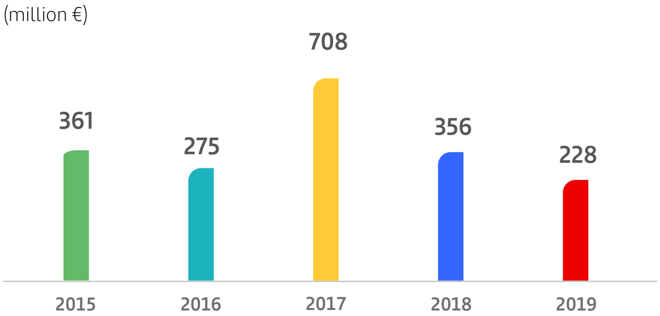
As a result, over the last two years, MDBs have asked our subsidiaries to apply part of the proceeds to increase the volume of new loans to climate related sub-projects in more than EUR 880 million, including renewable or energy efficiency investments, electric cars, manufacturers and suppliers of efficient equipment, retrofitting and zero energy residential and non-residential building construction, etc.

We expect that this requirement will gradually increase as the share of MDB financing dedicated to climate and environmental sustainability reaches 50% of total commitments, in line with the benchmark set last November by the EIB Group. That poses a challenge to continue enjoying in the next years the ample range of instruments and competitive financing those MDBs provide our subsidiaries. At the same time, it is a clear opportunity to develop pilot initiatives and more green finance business on top of renewable energy projects, where Santander is already a global leader and regular partner of MDBs, thus contributing to support the Group's ambitious responsible banking targets.

In 2019, we signed guarantee agreements and disbursed loans for a total value of €228 million to provide financing lines for energy efficiency and renewable energy projects. And in the last five years, we signed agreements for a total value of €1,928 million to support green finance in Spain, Poland, Brazil, Chile, Uruguay and Peru.

Total value of Santander's signed guarantee agreements and disbursed loans with MDBs to support green finance

(million €)



Partnership with MDBs

In Poland, Santander obtained from the European Bank for Reconstruction and Development (EBRD) the funding to offer loans intended to finance the construction of buildings meeting international environmental standard in the total amount equivalent to 140% of the €140 million acquired funding.

Climate action is a top priority for most MDBs

MDBs green finance targets

Rank	Target	Share of green finance (2019)	Share of green finance (2018)
IFC International Finance Corporation WORLD BANK GROUP	35% by 2030	29%	34%
European Investment Bank	50% by 2025	31%	30%
European Bank for Reconstruction and Development	40% by 2020	46%	40%
	40% by 2020	-	32%
THE WORLD BANK IBRD • IDA | WORLD BANK GROUP	30% by 2020	31%	32%
IDB Group	30% of operations approvals by 2020	29%	31%
ADB	€ 6bn annually	29%	30% (€4bn)
CAF BANCO DE DESARROLLO DE AMÉRICA LATINA	n/a	-	
CEB	n/a	26%	

4. Managing our environmental footprint

Environmental efficiency and reduction of consumption

Since 2001, we have been measuring and managing our environmental footprint; quantifying energy consumption, waste and atmospheric emissions; and setting targets to reduce our footprint through different energy efficiency and sustainability plans.

During 2019, the bank established three main targets towards reducing its direct impact on the environment:

- To have 100% of electricity from renewable sources[1] by 2025, reaching 60% by 2021 (currently at 50%).
- To become carbon neutral by offsetting all the emissions generated by our own operations from 2020 onwards.
- To eliminate unnecessary single use plastic in our branches and corporate buildings by 2021.

2019-2021 Energy Efficiency Plan

In 2019, we launched the 2019-2021 efficiency plan to encourage energy efficiency measures in site and on the maintenance of buildings and of our branches. To do so, we have helped countries to implement energy saving schemes: supporting on the implementation of efficiency projects that were more financially challenging with longer than usual return periods for this type of projects; analysing opportunities to optimise spaces; and creating awareness to the users of the buildings as to how to make their use and operation as efficient as possible.

With the 2019-2021 Energy Efficiency we plan to focus on the following areas:

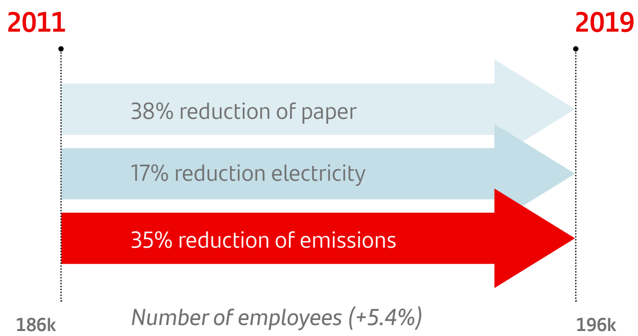
- Electricity consumption: aiming for a 2.8% reduction of electricity consumption in G10 countries, shifting towards LED lighting.
- Emissions of CO_2: a 1.4% reduction of emissions in G10 countries[2], boosting the use of green energy and promoting electrical mobility.

To meet all these targets, during 2019 we have implemented diverse initiatives, focusing on energy savings, saving raw materials, waste reduction, emission reduction and awareness campaigns.

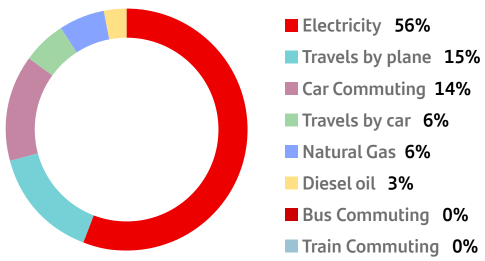
Regarding plastics, in 2019, we reduced by 75% the consumption of unnecessary single use plastic in corporate buildings and branches. In the buildings and branches of our main geographies (Argentina, Brazil, Chile, Germany, Mexico, Poland, Portugal, Spain, UK and USA) all unnecessary single use plastic will be eliminated and substituted by other non-plastic materials by 2021. This is an important commitment from a culture point of view as it engages all our employees in a directly manner, giving them the opportunity to participate first hand and creating awareness over the importance of reducing our environmental footprint.

1. In those countries where it is possible to certify renewable sourced electricity for the properties occupied by the Group.
2. Ten main markets where Santander operate - Germany, Poland, Spain, Portugal, UK, US, Argentina, Chile, Mexico and Brazil.

Result of plans



Emissions in 2019 by sources



In response to COVID we have taken measures to ensure protective equipment, such as gloves and surgical face masks, is available at our workplaces. We have also installed sanitising hand rub dispensers around the workplace to ensure employees are able to wash their hands. Some of this equipment is made out of plastic and we follow health authorities' recommendations that establish the equipment to be treated as medical waste that must be incinerated, dispose as required by local authorities.

As part of our ongoing efforts to prevent deforestation and forest degradation at Santander, we encourage our units to use Forest Stewardship Council (FSC) certified and recycled paper.

The FSC certification provides assurance that paper used by Santander has been harvested and produced in a socially and environmentally responsible manner. FSC certified paper is used across all countries and includes paper used at our branches, and in client communications such as printed bank statements. In 2019, 85% of the paper we used in Santander is recycled or certified paper.

2019 Highlights

- **50% of energy used in our buildings and branches is renewable,** reaching 100% green energy in Germany, Spain and United Kingdom. Currently, the United States, Brazil and Chile also acquire green energy for some of their facilities' consumption. Going forward other countries will join to contribute to our commitment of having 100% renewable energy for our own operations[1].
- **LEED PLATINUM** certification in buildings in Poland (Atrium I, Warszawa Atrium II and Poznan Business Garden).
- **LEED GOLD** certification in buildings in Germany (Santander Platz and An der Welle 5), Brazil (Torre Santander and data center in Campinas), Spain (Tripark; Abelias; Luca de Tena and data center Norte Santander), and in Poland (Robotnicza , 11 Street).
- **We received "Zero Waste" certification by AENOR** in Santander Group headquarters in Boadilla del Monte. This certification recognises that at least 90% of the waste generated is reintroduced into the value chain (a maximum of 10% of the waste generated goes to the landfill). Therefore, the zero waste accreditation is measuring the orderly handling of waste to reduce its generation, prepare it for reuse and/or transform the waste into raw materials and reintroduce it into the value chain. In order to obtain this certification Santander's headquarters is reporting the selection of its waste management services, has the tracking record to certify our waste is reintroduced into the value chain, is creating awareness among employees, has plans to reduce waste, has internal control mechanisms and annual external audits from AENOR. AENOR's "Zero Waste" is compatible with our standard ISO 14001 certification.

1. In those countries where it is possible to purchase renewable sourced electricity for the properties occupied by the Group.

2019 enviromental footprint[1]

	Var. 2018-2019 (%)
2,811,322 M^3 water consumed from the supply system	-4.9
1,070 MILL. KWH total electricity — 50% renewable energy	-0.7
18,101, T total paper consumed — 85% recycled or certified paper	1.0
9,410,831 KG paper and cardboard waste	-2.1
4,252,669 GJ total integral energy consumption	-3.5

		Var. 2018-2019 (%)
	321,164 T CO_2 teq total emissions (market based)	-15.5
Scope 1	22,691 T CO_2 teq direct emissions	
Scope 2	177,504 T CO_2 teq indirect electricity emissions *(market based)*	
	322,038 T CO_2 teq indirect electricity emissions *(location based)*	
Scope 3	120,969 T CO_2 teq indirect emissions from employes travelling to work	

1. The environmental footprint table with 2-year historical data and the consumptions and emissions per employee can be found in the 'Key Metrics' section.

Other country initiatives supporting the reduction of our environmental footprint

UK

At Santander UK, energy data platforms allow us to accurately manage each of our properties that have a smart meter installed, and we reduced electricity use by 6.6% and gas usage by 10.7% in 2019. Water use was also reduced by 8.3% in 2019 with the installation of efficient water fittings in three offices.

Portugal

Santander's headquarter building in Portugal is an example of an eco-friendly building. The light provided to the building comes from LED and it is adjusted according to natural light. Outside air is filtered and used for cooling computer equipment, and rainwater collected and filtered to transform it in reusable water. The most recent and innovative solution, is a set of four elevators equipped with energy regeneration systems.

Carbon neutral in 2020 for our operations

During the UN Climate Change Conference (COP25) taking place in Madrid in December 2019 Banco Santander publicly announced its commitment to becoming carbon neutral in 2020 by offsetting all the emissions generated by its own operations. The commitment includes all scope 1 and scope 2 emissions and scope 3 emissions from business travel and commuting. Santander has already cut its emissions by 35% between 2011 and 2019, while electricity consumption fell by 17% in the same period.

To further reduce carbon emissions Santander has committed to source all its electricity from renewable sources where possible by 2025, compared to 50% in 2019. Furthermore, 100% of buildings around the world will have the ISO 14001 certification by 2025 - the core set of standards used by organizations for designing and implementing effective environmental management systems. With these and other actions, Santander expects to cut total emissions by a further 46% from 2019 to 2025.

The Carbon Footprint Forum assists the bank in the execution of its strategy to reduce its direct environmental impact, including achieving the target of becoming carbon neutral by 2020. Led by the Corporate Facilities and Sustainability teams, this forum consists of 18 representatives from across the group: Corporate Facilities, Sustainability, Procurement, Human Resources, Costs, Payment Methods, and General Services. The Carbon Footprint Forum meets regularly and routinely reports on progress achieved to the Inclusive and Sustainable Banking Steering and the Responsible Banking, Sustainability & Culture Committee (RBSCC).

To become carbon neutral in 2020 Santander will invest in environmental projects (known as "carbon offsets") offered by providers that comply with the following criteria:

- **Geographical location:** Be based in any of Santander's 10 largest countries of operations (Germany, Poland, Spain, Portugal, UK, US, Argentina, Chile, Mexico and Brazil).

- **Third-party certified:** Be certified against internationally recognised standards, such as the Gold Standard for the Global Goals, the Verified Carbon Standard (VCS), and other similar standards. Alternatively, compliance with national standards might also be considered, including compliance with Spain's MITECO (Ministry for Ecological Transition and Demographic Challenge).

- **Diversity of categories:** Santander's carbon offset portfolio must be diverse, including but not limited to, renewable energy, reforestation and technology substitution projects.

- **Compliance with Santander's ethical standards:** The provider of environmental projects must demonstrate good global citizenship by adhering, like Santander, to the Ten Principles of the UN Global Compact that govern corporate practices in the areas of human rights, labour, environment and anti-corruption. In addition, providers are required to adhere to Santander's Principles of Responsible Behaviour for suppliers that include, among others, diversity and inclusion, and human rights. A project's alignment to the SDGs will also be considered, including commitments to social development, along with environmental impact.

Since the carbon neutral announcement was made the Carbon Footprint Forum has engaged with the relevant teams, both in the Corporate Centre and in the countries where Santander has operations. During the initial stages involving the identification of carbon offsets suppliers, Santander's Corporate Facilities team consulted the local Facilities and Responsible Banking teams, and the Responsible Banking team in the Corporate Centre.

In parallel, Procurement scanned the market to identify other notable suppliers of carbon offsets. Following this consultation, potential carbon offset suppliers were earmarked, with input received from staff from across most geographies, including: Spain, Brazil, Chile, Argentina and the UK. Upon completion of the review of projects that meet the required criteria, the shortlist will be shared with the relevant local teams to gather their views before finalising the selection of project offsets.

A system will be devised for each country to pay for their own emissions offsets. This set up is intended to work as a proxy to an internal carbon pricing mechanism: countries which generate more emissions will pay a higher bill and will likely be encouraged to change their habits, including where possible reducing the amount budgeted for staff travel, implementing energy efficiency measures, increasing renewables, amongst others.

We will report in our 2020 report on the execution of our commitment to becoming carbon neutral.

During COP25 we announced the commitment to become carbon neutral in 2020 in our own operations

Find more detailed information about Santander principles of responsible behaviour

2019 environmental performance

Environmental footprint 2018-2019[1]

	2019	2018	2017	Var, 2018-2019 (%)
Consumption				
Water (m^3)[2]	2,811,322	2,956,420	2,872,853	-4.9
Water (m^3/employee)	14.55	15.24	14.68	-4.5
Normal electricity (millions of kwh)	533	616	639	-13.5
Green electricity (millions of kwh)	537	461	473	16.5
Total electricity (millions of kwh)	1,070	1,077	1,112	-0.7
Total internal energy consumption (GJ)[3]	4,252,669	4,404,809	4,522,999	-3.5
Total internal energy consumption (GJ/employee)	22.00	22.70	23.11	-3.2
Total costs of energy consumption (Euros)[4]	164,900,747	n.a.	n.a.	n.a.
Total costs of electricity consumption (Euros)[5]	n.a.	129,422,559	133,952,318	n.a.
Total paper (t)	18,101	16,764	20,010	1.0
Recycled or certified papaer (t)	15,388	14,583	16,969	-2.3
Total paper (Tn/employee)	0,09	0.09	0.10	1.4
Waste				
Paper and cardboard waste (kg)[3]	9,410,831	7,656,046	8,972,420	-2.1
Paper and cardboard waste (kg/employee)	48.69	39.46	45.84	-1.7
Greenhouse gas emissions				
Direct emissions (Tn CO_2 teq)[7,8]	22,691	31,227	29,108	-27.3
Indirect electricity emissions (CO_2 teq)-MARKET BASED[9]	117,504	223,920	226,455	-20.7
Indirect electricity emissions (CO_2 teq)-LOCATION BASED[10]	322,038	364,682	374,346	-11.7
Indirect emissions form displacement of employees (CO_2 teq)[11]	120,969	124,840	126,287	-3.1
Total emissions (CO_2 teq)- MARKET BASED	321,164	379,988	381,849	-15.5
Total emissions (CO_2 teq/employee)	1.66	1.96	1.95	-15.1
Average number of employees	193,261	194,027	195,732	-0.4

1. The scope of information includes the main countries of operation: Argentina, Brazil, Chile, Germany, Mexico, Poland, Portugal, Spain, United Kingdom and United States (excluding Puerto Rico and Miami). The information on Banco Popular is included on a consolidated basis within Spain and Portugal.
2. Information is provided exclusively on water consumption from the public network.
3. It is also reported that the external energy consumption resulting from employee travel and business trips has been: 1,721,139 GJ in 2019 and 1,666,802 GJ in 2018.
4. Total costs of energy consumption in 2019 reflects the actual costs incurred and includes all energy types (electricity, natural gas, diesel, gas oil, etc.).
5. To estimate the cost of electricity purchased in both 2018 and 2017 we have multiplied the real consumption in kWh by the estimated average price per kWh in each country.
6. The data for 2018 and 2019 do not include waste from Argentina and the commercial network in Brazil.
7. These emissions include those derived from the direct consumption of energy (natural gas and diesel) and correspond to scope 1, defined by the GHG Protocol standard. To calculate these emissions, the emission factors DEFRA 2019 for 2019 and DEFRA 2018 for 2018 were applied. The variation is due to the consideration of the emissions derived from the use of own vehicles in Mexico.
8. The reduction in direct emissions was mainly due to lower diesel consumption in 2019. This reduction was mainly due to the completion of maintenance operations at the Data Processing Centre in Brazil in 2018 and to the reduction in the number of buildings in the USA and of branches in Germany that used this type of fuel.
9. These emissions include those derived from electricity consumption and correspond to the scope 2 defined by the GHG Protocol standard. In 2019 the IEA (International Energy Agency) emission factors for 2017 have been used, and in 2018, the IEA 2015 factors were used. - Indirect Electricity Emissions - Market-based: zero emissions have been considered for green electricity consumed in Germany, Brazil, Spain, UK, USA, which has meant a reduction of 144,783 tons of CO2 equivalent in 2019 and 140,762 in 2018. For the rest of the electrical energy consumed, the emission factor of the IEA corresponding to each country has been applied. - Indirect emissions of electricity - Location-based: the emission factor of the AEI corresponding to each country has been applied to the total electricity consumed, regardless of its source (renewable or non-renewable).
10. The reduction in indirect electricity emissions has been mainly due to the increase in the purchase of green energy in 2019 in the countries that make up the G10.
11. These emissions include emissions from employees travelling from central services in each country to their workplaces by individual car, collective vehicle and rail, and from employees' business travel by air and car. The distribution of employees by type of travel has been made on the basis of surveys or other estimates. The conversion factors DEFRA 2019 for 2019 and DEFRA 2018 for 2018 were used to calculate emissions from employee travel. - The number of employees travelling to work in their own vehicles was estimated taking into account only the number of parking spaces in the central services buildings in each country and the diesel/petrol consumption mix of the vehicle fleet in each country. Data on employee travel by individual vehicle from Argentina, Poland and the United Kingdom are not reported, as the information is not available. - Employees' journeys in collective vehicles were calculated on the basis of the average distance travelled by the vehicles rented by Grupo Santander for collective transport of its employees in the following countries: Germany, Brazil, the US, Spain, Mexico, Poland, Consumer and Portugal, and within the central services of Spain (CGS). - Data on business trips by air from Poland Geoban and business trips by car from Poland Geoban and USA Consumer are not reported, as the information is not available. – Emissions derived from the use of courier services are not included, nor are those derived from the transport of funds, nor those from any other purchase of products or services, nor those indirect ones caused by the financial services provided.

5. Collaboration with our stakeholders

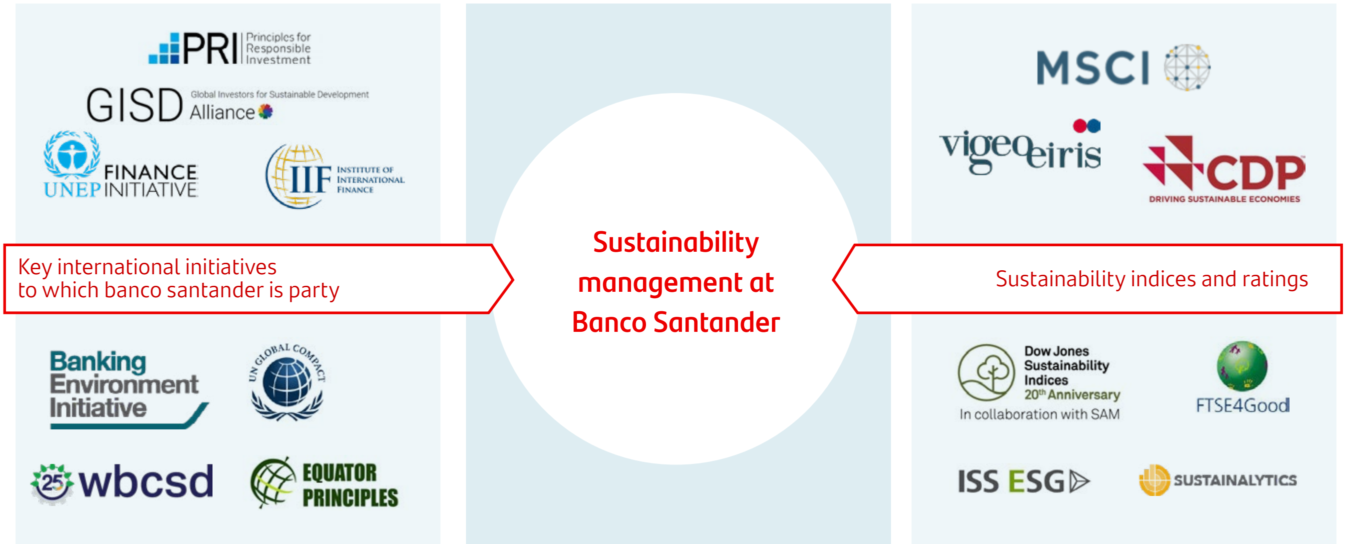
Industry working group participation

Santander actively engages with different stakeholders such as regulators, sector associations, think tanks, peers and others in working groups, consultations and debates to contribute and shape the discussions to build finance solutions to better support the UN Sustainable development Goals (SDGs) and the Paris Agreement on climate change.

We are part of key international initiatives that contribute to shape the debate around climate finance and help us stay up to date with international best practices regarding banks' role in environmental protection, such as the UN Principles of Responsible Investment, UNEP FI, Banking Environment Initiative, Equator Principles etc. In addition, we track and participate in sustainability indices and ratings that measure our ESG performance and help us identify areas of improvement to further support against climate change and other related topics like CDP, MSCI, Vigeo Eiris or Sustainalytics etc.

Santander engages with numerous stakeholders to build finance solutions supporting the UN Sustainable development Goals (SDGs) and the Paris Agreement on climate change.

Main initiatives to which Banco Santander is party



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COP 25

The UN Climate Change Conference 2019, COP 25, took place under the Presidency of the Government of Chile and was held with logistical support from the Government of Spain. It was organized in a record time for it to be held in Madrid with a huge effort of all the institutions involved. Santander was a proud Gold sponsor of the Conference and participated in different events.

Ana Botín, Executive Chairman, participated in in three events focused on the role that the banking sector has in decarbonizing the economy and financing the Paris Agreement. Remarking in her interventions the importance of common and robust international taxonomies, and polices so that banks can take informed decisions. And how the Group will be supporting green finance and tackling climate change.

Jose Antonio Alvarez, CEO, collaborated with his participation on two events. An event with UNEP FI to discuss the role of financial institutions in the fight against climate change. And an event with the EBF where the leading European banks with European policymakers and experts met to exchange views on how banks can support the transition to a sustainable economy.

Santander collaborated with the WBCSD in the Low Emissions Solutions Conference with the objective of promoting dialogue between business, government and academia on efforts to accelerate action to a net-zero emissions economy. Santander also participated with speakers in different parallel events in collaboration with Bank of Spain, Sustainable Innovation Forum, European Union Commission etc.

UNEP FI

During 2018 and 2019 Santander participated actively in the development of the United Nations Principles for Responsible Banking. In September 2019, Santander became one of the founding signatories to the principles, committing to strategically align its business with the Sustainable Development Goals and the Paris Agreement on Climate Change.

Furthermore, regarding climate, we have also signed up to the Collective Commitment on Climate Action, to scale up our contribution on the climate change agenda and align lending with the objectives of the Paris Agreement on climate change. We have joined specific working groups to collaborate in the development and application of methodologies that will help banks fulfilling the commitment by setting sector specific scenario based targets to align portfolios with the Paris Agreement on climate change.

We have also continued our participation in the TCFD Pilot II following the first pilot which started back in 2017. The project focuses on implementing certain elements of the TCFD recommendations for banks. This initiative aims to develop models and metrics to enable scenario-based, forward-looking assessment and disclosure of climate related risks and opportunities. The participation in this working group has supported our progress in the implementation of the TCFD recommendations described in chapter 2.

We will continue engaging with UNEP FI in progressing on the development and implementation of these important initiatives.

Banking Environment Initiative

With the support from the Cambridge Institute for Sustainability Leadership (CISL), the Banking Environment Initiative (BEI's) mission is to pioneer actionable pathways towards a sustainable economy through the financial system. Santander is a founding member of BEI and together with 7 global banks seek work to help BEI deliver on its mission.

During 2019, Santander has participated in the Bank 2030 initiative, which aimed to build a roadmap for the banking industry to help society in the transition towards a low carbon economy. As part of the project Santander shared insights on sustainable finance practices with CISL researchers, to contribute towards the research for the Bank 2030 report.

The report focuses on the importance banks have in the transition to a low carbon economy, which requires a transformations of assets and behaviours. The research sheds light on how banks can accelerate this transition and develop a vision for a bank in 2030. As the report concludes, a bank in 2030 will have institutionalised the mindset, competencies and innovative practices needed to meet this challenge.

The report is a significant contribution to the banking sector in identifying barriers and opportunities for banks in this transition, which requires a transformation of assets and behaviours. The roadmap presented could also be a first draft for the journey to a sustainable bank with the appetite and ability to meet the SDGs fully. Also working with the BEI, Santander remains committed to the soft commodities compact and the fight against deforestation, more information on our 2019 performance in this regards in Annex 1.

Engagement with regulators, industry bodies and other stakeholders

Santander plays an active role in the climate change and sustainable finance policy debate, participating in the formal consultation process on relevant regulatory files that took place mainly in Europe, and industry forums focusing on the transition to a low carbon economy. We have worked very closely with industry bodies – including the Institute of International Finance, European Financial Services Round Table, the Association for Financial Markets in Europe, and the European Banking Federation – to reach common positions on issues such as the EU framework for identifying sustainable economic activities (the so-called taxonomy), as well as the accompanying technical criteria work undertaken by the Technical Expert Group advising the European Commission; the disclosure regulation relating to sustainable investment and sustainability risks; or the ongoing work on the identification and management of climate-related risks.

In addition, Santander is participating in the European Banking Federation - UNEP FI working group that will develop voluntary guidelines for banks on the application of the EU taxonomy. By participating in these discussions, we aim to contribute to the industry position in this major matter, to help building an effective framework that incentives the sustainability agenda and ensure it is coherent and consistent with Santander's ambitions and priorities under its responsible banking agenda.

Santander also maintains an open dialogue and engages with NGO participating in different studies and initiatives.

Promoting environmental initiatives to impact on communities

Santander brings also its skills and resources to contributing and collaborating with other stakeholders in local initiatives that positively impact on communities.

As a Group, we engage in different environmental initiatives that aim to have a positive impact on communities, some of our initiatives focus on a local level and contribute to the transformation of cities into environmentally friendly spaces.

Business Mobility Pact for the City of Lisbon, Portugal

Santander signed the Business Mobility Pact for the City of Lisbon, joining the World Business Council for Sustainable Development (WBCSD), the City Council and 55 other companies to create greener and more efficient mobility solutions. Through the Pact, signatories are committed to identifying and promoting sustainable urban mobility solutions, which may include, for example, offering workers credits for using shared transport.

Solutions with the objectives of being:

- **Environmentally friendly:** contributing for the reduction of CO2 emissions (at least 50% reduction by 2030).
- **Inclusive:** developing mobility plans to provide all employees of the Pact's member companies with sustainable and affordable mobility solutions.
- **Efficient:** promoting partnerships, incentives and digital platforms that allow all employees to have shorter commute times with greater comfort and less expensive.
- **Safe:** Promoting safe and responsible behaviour, in line with public policies, and with the goal of "zero people dead" on public roads.

With this Mobility Pact Santander contributes in the transformation of Lisbon into a greener city. Some of these initiatives are part of the Lisbon Green Capital 2020. The European Commission awarded Lisbon as European Green Capital 2020. Santander Portugal has signed a commitment, in February, to promote the objectives of Lisbon Green Capital 2020 with more than 200 companies and organizations and take concrete actions that will help the city achieve these objectives.

Santander city brain

Santander's city council has aligned with Banco Santander to launch Santander city brain eco initiative. This initiative aims to transform Santander city into an international example of sustainability. 2,106 ideas have been shared, 24 contests have been launched and 673 innovators have been sponsored. All the ideas revolved around sustainable mobility solutions, environmentally-friendly tourism proposals, circular economy, promotion of the local economy and contribution to eco-friendly urbanism.

Other examples of Santander working on environmental activities with a positive impact on local communities are:

Promoting & sponsorship the use of electric mobility in the cities where we are present

UK

Since its launching in 2015, Santander Cycles continue to help create a prosperous, connected and mobile society. Cycling can help improve physical and mental health by encouraging an active lifestyle, as well as boosting productivity at work. Public cycling schemes can also support local economies, by connecting and providing residents from less privileged backgrounds and tourists with an alternative way to travel and commute for just £2 a day. This can mean that local businesses receive more exposure, with increased choice for more customers. In addition, cycling can avoid air pollution and greenhouse gas emissions caused by cars or taxis.

We currently have 12,000 Cycles covering over 100km^2 of London, racking up over 10 million hires a year.

Germany

In 2018, Santander Consumer Bank AG launched a new bike-sharing system in Mönchengladbach in cooperation with our partner NextBike. There are now 250 Santander nextbikes at 35 stations available in the inner-city area of Mönchengladbach. The system is sponsored by Santander Germany and was developed in co-operation with the city of Mönchengladbach and the provider nextbike.

We also developed a project of providing infrastructure for electric vehicles with the installation of charging stations, which can be used by employees, customers and the public.

Spain

Since, 2018, in Boadilla del Monte, close to our head office in Madrid, we sponsor a bike-sharing scheme.

Santander Spain and Carsharing Bansacar have an eco-car renting proposal available for customers and company fleets and has launched a pilot car-sharing service for its employees in Madrid that can be used by staff in corporate buildings on Juan Ignacio Luca de Tena and Abelias.

Santander Effect

Desplastifique Initiative indirectly contributes to climate change in different ways:
Dsplastifique (administrative buildings) contributes to the reduction of the bank's environmental footprint. Through the Santander Effect, we extend this impact to society, through the engagement of employees and their families.

In the Volunteer Action #efeitosantander, the actions are open so that volunteers can be protagonists of their actions in order to help society to prosper, so we had 1,305 registered actions, being 46 actions related to the theme Desplastifique. The activities of the theme desplastifique were:

- Installation of containers for selective garbage collection, batteries, cooking oil or electronic garbage;
- Games, jokes and gymkhanas focused on Sustainability (Environmental Awareness);
- Classes, workshops or lectures with focus on Sustainability (Environmental Education).

Fundación Banco Santander

Through our Foundation, the Bank carries out a number of initiatives to help protect and improve the environment.

Santander Foundation has carried out various projects aimed at protecting, conserving and recovering natural areas. Some examples are: Conservation of the Black Stork in Salamanca and Cáceres partnering with Fundación Naturaleza y Hombre, Capercaillie habitat restoration in Asturias supporting the Fondo para la Protección de los Animales Salvajes or the Conservation of wetlands in Madrid in collaboration with Grupo para la Rehabilitación de la Fauna Autóctona y su hábitat.

Find more information about Fundación Santander

Santander Universities

Support for higher education has been the hallmark of Banco Santander's commitment to communities since 2002. Promoting entrepreneurship is one of the Bank's key areas, and one of the most important objectives in the area of supporting young people. Some entrepreneurship projects supported by Santander Universities that support the fight against climate change are:

- Rated Power, in Spain, is a team of engineers, programmers and developers with a high level of experience in the solar industry who understand the needs of the market.
- In Mexico, Aua Solutions' goal is to develop devices specifically designed to save over 75% of water consumption through a valve that fits on the toilet.
- The Solubag spa project in Chile is in charge of researching and innovating product packaging, creating a material that disintegrates on contact with water, is compostable and biodegradable.
- In Argentina, we have supported The Oda bio-degradable tableware, made of potato skin. When you finish using the plate you can bury it in the ground and after 30 days it decomposes, perfect for reducing single-use plastics.

Find more information about Santander Universities

6. Through Climate Finance, Santander contributes to the United Nations Sustainable Development Goals

SDG	Target	SCOPE	DATA
7 AFFORDABLE AND CLEAN ENERGY	7.2.	By 2030, increase substantially the share of renewable energy in the global.	In 2019, **we have been the global leader in renewable energy financing** in terms of both the number of transactions and their amounts.
			In 2019, we helped **finance greenfield renewable energy projects with a total installed capacity of 8,036 MW.** Thus avoiding the emission of 63 million tons of CO_2.
			We aim to raise or facilitate the mobilization of 120Bn euros between 2019 and 2025, and 220Bn euros between 2019 and 2030 in green finance to help tackle climate change.
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	9.4.	By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.	**We invest in shifting the energy industry towards a low- carbon economy.**
			Over the last ten years, Santander has participated in **726 renewable energy project finance deals, investing a total of EUR 29 billion.**
11 SUSTAINABLE CITIES AND COMMUNITIES	11.C.	Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials.	**We fund sustainable energy solutions** for people and companies.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	12.4.	By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.	Environmental footprint: 2.1% reduction in paper and cardboard waste, 3.5% reduction in internal electricity consumption, and 15.5% reduction of total CO_2 emissions in 2019. **50% of the energy consumed by Santander was renewable energy.**
			Commitments: 60% of electricity used from renewable energy sources by 2022 and 100% by 2025. **Becoming carbon neutral in own operations 0% by 2020.**
	12.5.	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	Commitment: **Complete reduction of unnecessary single use plastic** in corporate buildings and branches by 2022.
	12.6.	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle.	Environmental and social risks analysis: **46 projects financed under Equator Principles criteria.**
			Responsible procurement: New principles of responsible behaviour of suppliers: **93.2% local Group suppliers.**
			Analysed part of our **portfolio's alignment to climate scenarios** (Task Force for Climate-related Financial Disclosures).

SDG	Target	SCOPE	DATA
13 CLIMATE ACTION	13.	Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.	Agreements with multilaterals for the **financing and development of energy efficiency projects.** **Financing of vehicles with low CO_2, electric and hybrid emissions.** **1 bn euros first green bond emission.** Commitment: Green finance raised and facilitated (euros) 120Bn by 2025. **In 2019 we achieved 19Bn euros.**
17 PARTNERSHIPS FOR THE GOALS	17.16.	Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.	At Group-level, we work with a number of initiatives and working groups at local and international level to drive forward our agenda, and support progress towards the UN SDGs, of which we highlight: **Banking Environment Initiative (BEI).** We participate in two climate related work streams, the Soft Commodities Compact and the new initiative Bank 2030 which aims to build a roadmap for the banking industry to 2030 seeking to increase the financing to low carbon activites. **UNEP Finance initiative.** Together with 27 other banks, we promote the principles for responsible banking of the United Nations. We also participated along with other 15 banks in 2018 in the UNEP FI pilot project on implementing the TCFD recommendations for banks. **Principles of Ecuador.** We analyse the environmental and social risks of all our financing operations of projects that are under the scope of the principles of Ecuador and participate actively in the evolution of the criteria.

7. Annex

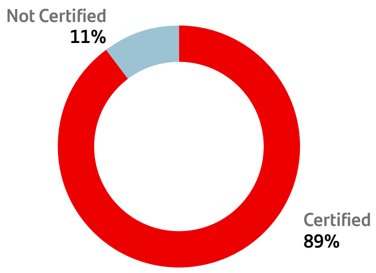
Soft Commodities Compact 2019 Report

We have reviewed our list of active CIB clients in the Soft Commodity sectors of soy, palm oil, and timber products as of December 2019. The following charts reflect the level of certification[1] achieved by these clients as of Q1-20. For each of the commodities, we have analysed the extent of the operations of the clients in the following areas:

- **Palm Oil:** Oil Palm plantations, Palm Oil processing, Palm Oil trading.
- **Soy:** Soy plantations, Soy processing, Soy trading.
- **Timber products:** Plantations, pulp & paper manufacturing.

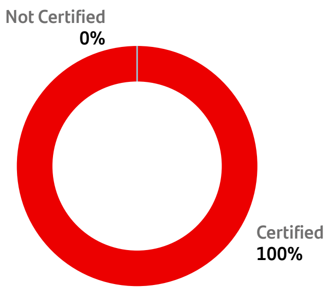
Soy: 89% of clients are either RTRS certified, RTRS members or buy RTRS/ISCC-certified soy.

Soy



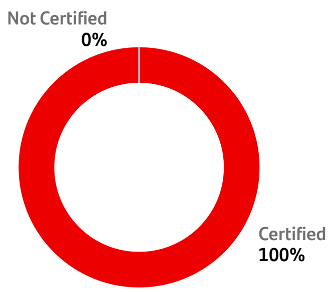
Palm Oil: All CIB clients are RSPO certified across all their Oil Palm or Palm Oil activities.

Palm Oil



Timber products: all clients are FSC certified.

Timber Products



1. To prepare this report we have consulted publicly available records, without independent verification. This report is for information only and does not constitute an appraisal of the assets, stock or business of any of the companies included in it.

SCIB League Tables[1]

Dealogic League tables on renewable energy project finance by geographies:

Americas Renewable Energy Project Finance Volume by Mandated Lead Arranger-FY 2019 (Dealogic)

Rank	Mandated Lead Arranger	Vol $m	(#) Deals	% Share
1	Bank 1	2,973	49	10.0
2	**Santander**	**2,701**	**67**	**9.1**
3	Bank 2	2,203	24	7.4
4	Bank 3	1,332	17	4.5
5	Bank 4	1,069	12	3.6
6	Bank 5	1,068	4	3.6
7	Peer 1	877	18	3.0
8	Peer 2	861	9	2.9
9	Bank 6	846	36	2.9
10	Bank 7	784	10	2.6

EMEA Renewable Energy Project Finance Volume by Mandated Lead Arranger-FY 2019 (Dealogic)

Rank	Mandated Lead Arranger	Vol $m	(#) Deals	% Share
1	**Santander**	**3,070**	**35**	**8.0**
2	Peer 1	2,502	26	6.6
3	Peer 2	1,818	19	4.8
4	Bank 1	1,781	18	4.7
5	Bank 2	1,603	13	4.2
6	Bank 3	1,493	17	3.9
7	Peer 3	1,374	13	3.6
8	Bank 4	1,374	8	3.1
9	Peer 4	1,164	11	3.1
10	Bank 5	1,118	17	2.9

1. Santander peers include: BBVA, BNP, Citigroup, Credit Agricole, HSBC, ING, Scotiabank, Unicredit

Bloomberg 2019 2H league tables for clean energy:

Asset finance Lead Arrengers (Bloomberg) - FY 2019

Rank	Mandated Lead Arranger	Vol $m	(#) Deals	% Share
1	**Santander**	**3,521**	**52**	**5.5**
2	Bank 1	3,453	45	5.4
3	Bank 2	3,188	62	4.9
4	Peer 1	2,935	51	4.6
5	Peer 2	2,105	39	3.3
6	Bank 3	1,852	26	2.9
7	Bank 4	1,715	27	2.7
8	Peer 3	1,635	39	2.5
9	Bank 5	1,564	44	2.4
10	Bank 6	1,562	37	2.4

Asset finance Syndicated Lenders (Bloomberg) - FY 2019

Rank	Mandated Lead Arranger	Vol $m	(#) Deals	% Share
1	**Santander**	**726**	**4**	**12.8**
2	Peer 1	522	2	9.2
3	Bank 1	459	1	8.1
4	Bank 2	297	2	5.2
5	Bank 3	265	1	4.7
6	Bank 4	254	2	4.5
7	Bank 5	252	1	4.4
8	Bank 6	240	1	4.2
9	Bank 7	239	2	4.2
10	Bank 8	216	1	3.8

Asset finance Financial Advisers (Bloomberg) - FY 2019

Rank	Mandated Lead Arranger	Vol $m	(#) Deals	% Share
1	**Santander**	**7,539**	**26**	**17**
2	Bank 1	6,926	18	15.6
3	Bank 2	6,585	1	14.9
4	Peer 1	2,539	1	5.7
5	Bank 3	2,420	4	5.5
6	Bank 6	2,093	5	4.7
7	Bank 7	1,514	1	3.4
8	Bank 8	1,514	1	3.4
9	Peer 2	1,034	3	2.3
10	Bank 4	961	6	2.2

Global Green and ESG Loans Volumes Refinitiv:

Global Green and ESG Loans Volume Participant - FY 2019 (Refinitiv)

Rank	Mandated Lead Arranger	Vol $m	(#) Deals
1	Peer 1	109,966	96
2	Peer 2	72,383	71
3	Peer 3	100,640	67
4	**Santander**	**72,547**	**61**
5	Peer 4	77,328	57
6	Bank 1	76,532	55
7	Peer 5	55,407	53
8	Bank 2	52,892	41
9	Peer 6	71,845	40
10	Peer 7	52,191	39

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