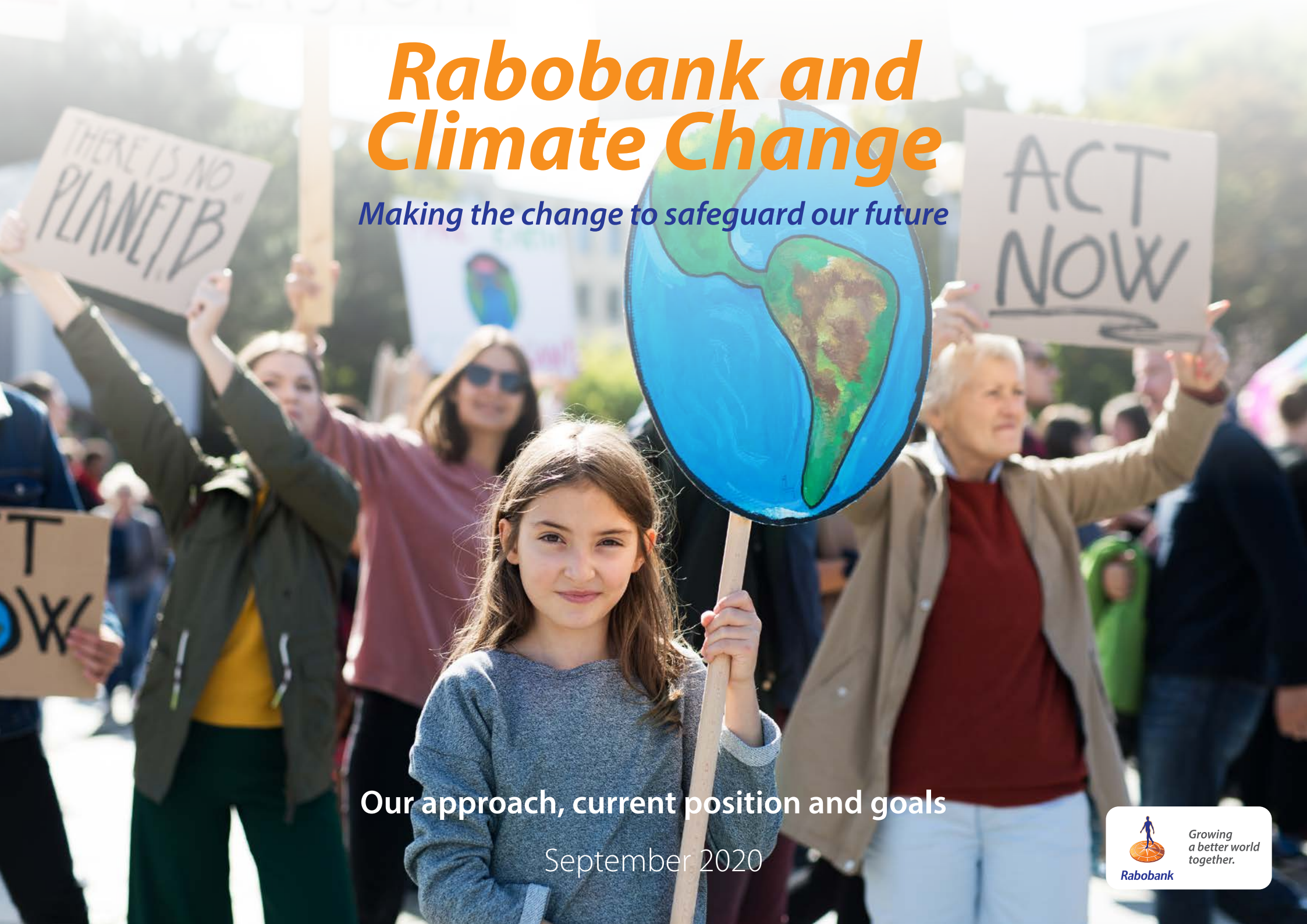
Rabobank and Climate Change

Making the change to safeguard our future



Our approach, current position and goals

September 2020

Rabobank

Growing a better world together.

Foreword

The last World Economic Forum in Davos identified that all of the top five risks that the world currently faces are linked to climate change. In order to reach the UN's Sustainable Development Goals and the Paris Agreement goal of limiting temperature rise to 2 degrees Celsius, we need to lower emissions substantially. In the Netherlands and Europe, the target is to roughly halve greenhouse gas emissions by 2030 (compared to 1990 levels), while the economy is (generally) growing. This involves massive challenges for society, for banks, for us, for me. We want to ensure that, by 2024, sustainability and tackling climate change are fully integrated into our corporate strategy, our focus on innovation and our daily client servicing.

To support our clients to make the necessary transitions toward a sustainable business model, and a more sustainable world, we must build on our role as a global and agricultural bank. We can and will make a difference as a financial services provider – by providing financial solutions with climate-related products and services – and also through our network and by sharing knowledge. This is not easy and we are definitely not ready yet, but we accept the responsibility and see the opportunity to become an even more meaningful service provider for our members and clients.

This publication shares our approach and the progress we have made so far, while listing our goals for the future. It provides an overview of our commitment and the actions we have already taken – in our portfolio, network deployment and partnerships – as well as the actions that we have planned for the future to sustainably grow our business. We focus on the most substantial parts of our portfolio: mortgages, food and agribusiness and our SME clients in the Netherlands.

Berry Marttin
Member of the Managing Board

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We welcome your questions and comments. Contact us at: globalclimatechange@rabobank.nl

01. Our Approach

Climate Commitment

Limit global warming

Rabobank considers continued global warming that overshoots planetary boundaries as a severe risk to the environment and to the food security of people and communities. Global warming is highly undesirable and unacceptable to society and the economy. That is why we are commited to helping limit global warming to 2 degrees and strive to keep this change below 1.5 degrees Celsius.

Mitigate climate change

We are strongly committed to mitigating climate-change risks by promoting, stimulating and offering products and services. Products that help reduce energy consumption through achieving higher energy efficiency and a more circular economy, including in food and agribusiness and in other high-carbon or energy-intensive industry sectors. We are transparent about our own carbon footprint and set annual targets to reduce it. We also compensate the emissions from our own operations completely (since 2007).

Lower greenhouse gas emission impacts

While the use of energy produced from fossil sources is still a reality and a necessity in many economies and households, we stimulate the transition toward economic activities and energy sources with lower greenhouse gas emission impacts. We do so by offering access to our financial products and services, networks and knowledge.

Commit to the goals of the Paris Agreement

We are committed to the goals of the Paris Agreement and consider it a shared responsibility to take action. We have also signed the Commitment of the Financial Sector to the Dutch Climate Agreement.

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Climate Strategy

Timeline

1990
Baseline year of the Paris Agreement and Dutch Climate Agreement.

2020
Publication of four climate risk assessments to better understand the climate-related risks in sustainable living and food and agribusiness.

2020
Gap analysis of climate data. This is translated into strategies to close the gaps.

Q1 2021
Rabobank will further disclose on the CO_2 emissions of its loan portfolio.

ONGOING 2020-22
Continuous development of financial products and solutions to help clients to mitigate climate risks and green their activities.

2022
Disclosure of main reduction targets and climate strategies by 2022 at the latest, which is in accordance with the Dutch Financial Sector Climate Commitment to the National Climate Agreement.

2023
Reduce emissions of our own operations by 20% per FTE compared to 2018 (a 41% decrease in absolute terms). Compensation of remaining emissions takes place by purchasing Gold Standard certified CO_2 credits. Rabobank has been climate neutral in its own operations since 2007.

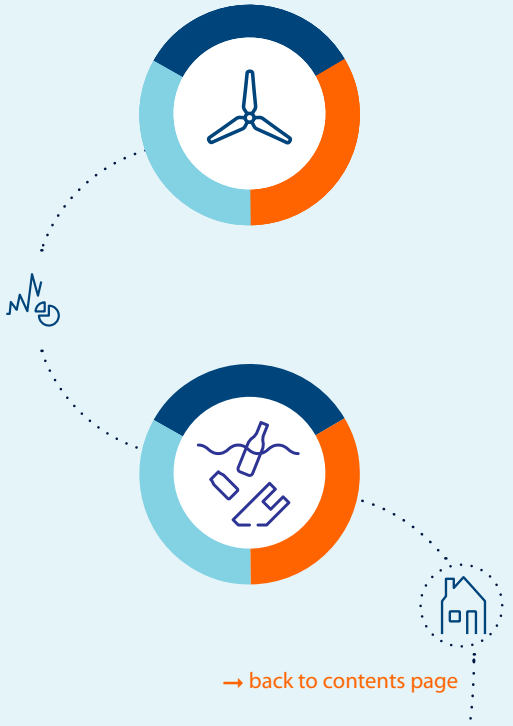
2030-50
The actions in this timeline will help to ensure that the Rabobank portfolio is in accordance with the 2030 and 2050 goals of the Paris Agreement and Dutch Climate Agreement.

Risks & opportunities

As a globally active, specialized food and agribusiness bank, climate change presents both risks and opportunities for Rabobank. We are a supporter of the Task Force on Climate-related Financial Disclosures (TCFD) and this year, for the first time, we reported in line with its recommendations in our Annual Report 2019.

Given our portfolio, **climate change risks** are most substantial for Rabobank in:
- Sustainable living: risks for mortgages, value of collateral (mainly the Netherlands).
- Sustainable food and agribusiness (worldwide, including the Netherlands).
- SME clients (small and medium-sized enterprises in the Netherlands).

Main **climate change opportunities** for Rabobank:
- In the housing market, creating awareness of energy-saving measures and presenting financing opportunities.
- Financing and facilitating the transition toward climate-smart agriculture, financing transitions to circular agriculture and investments for reduction of emissions, reducing waste.
- Carbon banking – matching the supply of CO_2 reduction projects to the demand for carbon footprint compensation, green savings and green investments.
- Accelerating the transition to a low-carbon energy system by financing renewable energy projects, supporting innovation and scaling low-carbon energy solutions.
- Using sustainable finance schemes and incentives such as green bonds to enable (large) companies to attract funding for greening their activities.
- Being a leading financier and arranger of financial solutions for disruptive technological innovations for circular and renewable techologies.



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Risk Management

Climate risk has the potential to create both financial and non-financial impacts for Rabobank. The financial impact refers to physical risk and transition risk to our customers' ability to service and repay their loans.
To effectively manage climate change risks and protect Rabobank from their potential impact we designed a four-year climate change risk plan. To integrate climate risk into our financial risk management frameworks this long-term plan relies on three main pillars in line with the Financial Stability Board (FSB) TCFD recommendations to which Rabobank subscribes: governance, risk management, metrics & targets. These elements are all included in this publication.

Given the uncertainty associated with the future course of climate change and society's response to it, performing scenario analyses is an important part of the long-term plan. These analyses lay the foundation of our risk management framework to be responsive to climate change in line with the financial regulators' requirements.
Our scenario analyses performed so far suggest that both physical and transition risk could have a high impact on the credit quality of the portfolio, in particular due to the combination of large exposures in certain portfolios. This emphasizes the urgency of the matter. The different methodologies, results and recommendations from four scenario analyses are discussed in detail in these reports of the DNB and TCFD. This is why we also include climate change as one of Rabobank's three strategic risks.

	Country / sector specific	***Rabobank level***				
Transition risk			Portfolio analysis based on the Oliver Wyman methodology developed for the UNEP FI TCFD. Scope: Dutch F&A livestock and crops sectors	Stress test based on an energy transition scenario developed by the DNB. Scope: Rabobank (excl. DLL)	High over portfolio analysis of the impact of water stress. Scope: Global F&A loans (excl. NL)	Portfolio analysis on flooding in the Netherlands. Scope: Dutch real estate
Physical risk		No analysis yet				

This year we will finish a so-called heat mapping exercise to give insight into a qualitative hot spot analysis of transition and physical risks in our loan portfolio. The goal of this exercise is to identify the pockets of relatively high(er) climate change risks in our portfolio. This should provide guidance for further scenario analysis and input for risk management policies. The heat map can also be used in our customer engagement and is a basis for discussions with customers about climate-related risks and opportunities.

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Governance

Responsibility for sustainability and climate at Rabobank rests with the Managing Board. The Managing Board has installed the Rabo SDG Banking Committee (SDG = Sustainable Development Goals) to manage company-wide sustainability ambitions, including the Climate Program, which ensures Rabobank's climate ambitions are met. The Rabo SDG Banking Committee is chaired by Berry Marttin, the Managing Board member responsible for sustainability and climate. For more information on governance, see our Annual Report 2019.

Culture

We have an HR Strategy in place for the coming five years (called our People Strategy 2020-2025). One of the focuses of this is our sustainable cooperative culture. A crucial element of this strategy is that we empower our employees to work together with colleagues and clients to grow a better world. Therefore, we consider it key that our people are aware of climate change and feel comfortable discussing it with clients and colleagues.
This is why sustainability and climate change are part of our onboarding process for new staff members. We have several learning modules available on climate change awareness and its relevance for clients and products.
And we organize frequent events for the whole workforce to discuss sensitive topics such as ground-water-related subsidence, carbon emissions scenarios and so on.

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Measuring Climate Impact

The landscape of climate measurement methodologies is still at an early stage of development and is therefore very dynamic. Through various pilots, we are working on the most relevant physical and transition risks in our portfolio, as well as how to determine the carbon footprints of our clients' economic activities. This provides various models for the strategic choices with which we help our customers gain insight into their own footprint, risks and opportunities. For example, a company may face a transition risk because environmental legislation is becoming stricter. Or may face higher costs if more has to be paid for emission rights. On the other hand, there are ample opportunities if our clients are successful in creating cleaner technology than their competitors. With the right data and methods we will be able to pinpoint the current positions and build an understanding of the trajectories.

Overarching challenges for measurement methods include the limited availability of data and the lack of unambiguous recognized and applied definitions and standards. This concerns, for example, granular data in the field of emissions, water use, risk factors such as drought, risk of forest fires and heat stress, and so on. We contribute to various initiatives to further develop climate impact methods:

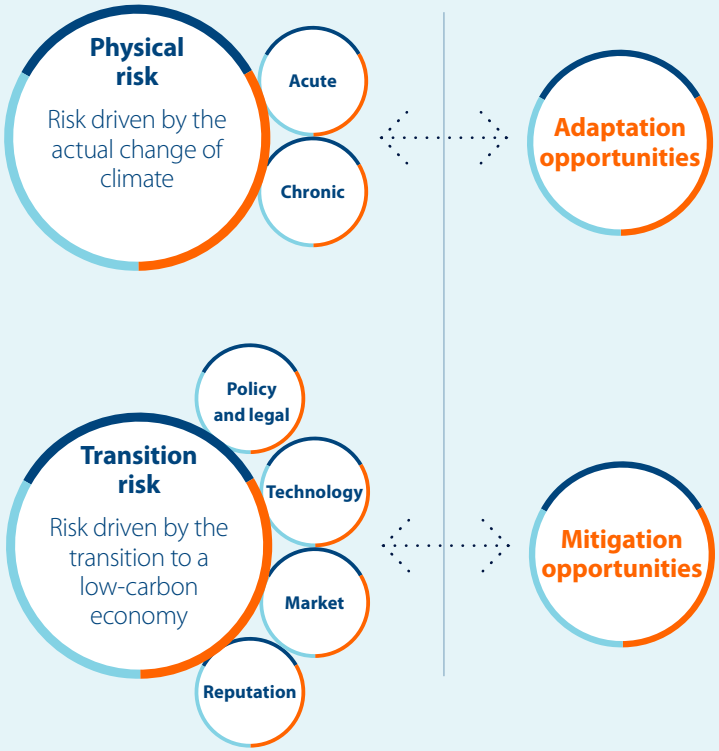
1. Rabobank is working on setting up Banking for Impact on Climate in Agriculture (B4ICA), an international group that brings together banks, science and relevant experts under the coordination of the WBCSD. It will address the data gaps in climate impact measurement in agriculture. For more details see page 11.
2. Within the PCAF network we work with other leading financial institutions on carbon footprinting of assets on the balance sheets of institutions, using the best possible carbon footprint methods and available data for the various economic activities and sectors.
3. With UNEP TCFD we share approaches and experiences concerning how to assess transition and physical risks. We have helped develop the methodology and we participate in the UNEP FI pilots.
4. We are a member of the Climate Resilience Risks and Opportunities Coalition (ClimateRROC). In the coalition, we share insights about adaptation methodologies and call for more attention to adaptation risks and possibilities in order to prepare for physical climate impact in time.
5. By reaching out to the PACTA network and SBTi we will determine how these initiatives can be of value to us in attaining the Paris goals. This will help us set an approach for reaching climate targets with our clients and in our own bank.

We believe that we can greatly benefit from joint work here. Conversely, we can bring something unique to these networks as a leading food and agribusiness and large mortgage bank.

This page touches upon the overarching developments and challenges concerning measuring climate impact. We dive more deeply into this subject regarding the following topics below:

- Sustainable Living
- Sustainable Food & Agribusiness
- SME Clients in the Netherlands
- Accelerating the Energy Transition

Climate change brings both risks and opportunities.



Ensuring the future of climate-smart food production

02. Our Climate Strategy Themes

Sustainable Living

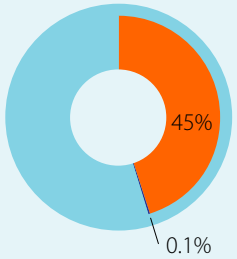
We help our customers to transform their homes to reduce their carbon footprint and prepare for the future. We do this with individual clients, by empowering collective groups of customers and also via sustainable project development.

Our approach

- We started our client servicing to make homes more energy efficient by focusing on customers who move house. We are now expanding our focus to motivating our other customers to do so as well, and we develop energy efficiency solutions for customer collectives.
- We bring together different parties involved in creating green solutions, creating a platform through which we can offer our customers insights and concrete offerings from contractors such as solar panels, insulation and heat pumps. The acquisition of The Sustainables in 2020 is an important step towards accelerating this development.
- We created a homeowner's account in which money can be reserved for energy-saving measures for homes.
- We support local energy cooperatives which generate energy on a small scale, for example with the help of biomass, geothermal energy or their own wind turbine.
- Together with our project developer BPD, we not only build houses, but develop areas with an emphasis on climate and water management. BPD focuses on energy transition, climate adaption, circularity and health. See more information on BPD here.
- We offer sustainability training for financial advisors and intermediaries (within and outside Rabobank) to acquire more knowledge on sustainability.

Sustainable Living Sector Collective

The Rabobank Group (Rabobank, Vista and Obvion Hypotheken) takes the initiative to better inform consumers of the importance of making homes more sustainable. Together with lenders, intermediaries and trainers, united in the Sustainable Housing Sector Collective, we want to improve the sustainability of homes by making this an integral part of mortgage advice. Offering sustainability training to advisors and intermediaries is part of this program.



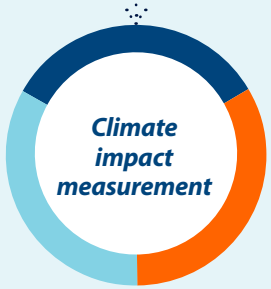
- Total exposure loan portfolio is EUR 415 billion (as of 30 June 2020).
- Exposure mortgage portfolio (incl. Obvion) - EUR 187.6 billion.
- Exposure property development EUR 0.3 billion.

Specific ambitions and targets

- In 2020, we aim to finance sustainability measures in 20% of our mortgage applications.
- In 2024 the average energy label of our portfolio will be B (2030: average label will be A). Currently, we have an average energy label of C.
- In 2024, 125,000 homes will be improved by at least two energy labels - baseline 2019 (2030: 400,000 homes).
- We will realize another Obvion Green STORM transaction (a green Residential Mortgage Backed Security - RMBS) and continue this successful method of green funding.
- We will build 15,000 sustainable, energy-efficient homes for middle-income renters over the coming ten years (2020-2030).
- In 2030, our area and project developments will be energy supplying (EPC = 0).

Climate-related products and services

- HomeScan-tool for home owners that includes concrete offerings of contractors to improve energy efficiency of homes (HuisScan).
- Green mortgage with lower interest rate for energy-efficient homes (GroenHypotheek).
- The Rabo Groendepot (green construction deposit account).
- Rabobank Sustainability discount, Vista Sustainability discount and Obvion Woon Hypotheek offer discounts for homes with low energy usage.
- Green STORM funding products, a green Residential Mortgage Backed Security (RMBS).



Climate impact measurement

In line with our goal to achieve an average energy label of B by 2024, rising to A by 2030, we are already making improvements in the energy labels of our mortgage portfolio, as the table below shows. The current exposure in energy label A mortgages as of 30 June 2020 is EUR 30.4 billion.
It is possible to calculate the emissions of our mortgage portfolio based on the average emissions of each energy label. It is also possible to calculate emissions on the basis of actual energy use per home. Statistics Netherlands (CBS) has taken the first steps toward this approach with this methodology. This approach has some drawbacks, as banks do not have access to all data points. Moreover, the CBS approach makes many assumptions that could lead to biased results, such as assuming a standard energy-mix basket for every household in the Netherlands. Furthermore, more recent data is key to offer up-to-date financial solutions. The latest CBS calculations are based on energy consumption in 2015 and 2016. We collaborate with CBS and other banks to update the calculations based on more recent energy consumption per home.

Energy Labels in the Mortgage Portfolio

Energy label	*% of houses financed by Rabobank (2019)*	*% of houses financed by Rabobank (2018)*
A	24%	20%
B	15%	15%
C	25%	26%
D	13%	15%
E	9%	10%
F	7%	7%
G	7%	7%
Total	**100%**	**100%**

Emissions of our Mortgage Portfolio

2016 (mln kg CO_2eq)	*2015 (mln kg CO_2eq)*
5,943	6,089

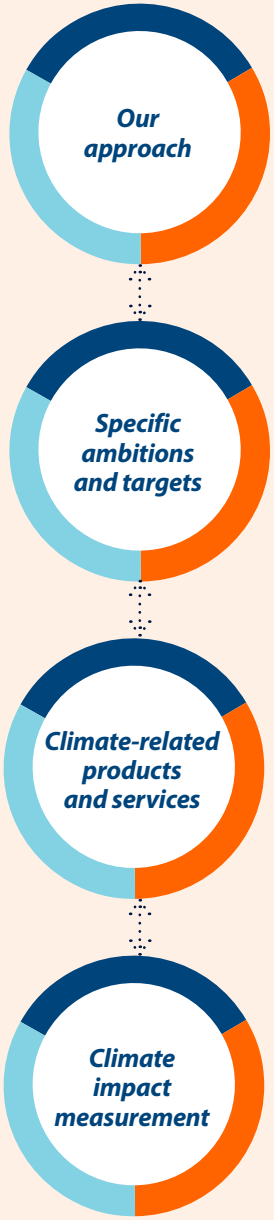
We are working on an approach that looks beyond the energy label of a house to estimate its carbon footprint. This will mean we can create more effective ways to help our clients make their homes more sustainable.

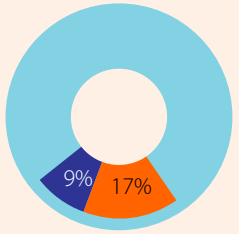
Support for Schools

We are not only committed to the goals of the Paris Agreement through our banking solutions to clients; we are also contributing by opening up our network and by providing resources. For example, we fund the fulltime managing director of Stichting Schooldakrevolutie. This foundation focuses on installing solar panels in over **8,000 schools** in the Netherlands and educating young people on the challenges of the energy transition. More information about Schooldakrevolutie can be found here and here.

Sustainable Food and Agribusiness

As one of the most important financiers of food and agribusiness in the Netherlands and worldwide, Rabobank has a prominent role to play in ensuring the future of climate-smart food production. We operate in the global food system and largely throughout the whole value chain. Therefore Rabobank has been and will continue to be instrumental in reducing this sector's relative footprint. The following pages detail our efforts so far.





- Total exposure loan portfolio is EUR 415 billion (as of 30 June 2020).
- Exposure food and agribusiness international clients - EUR 69.9 billion.
- Exposure food and agribusiness clients in the Netherlands - EUR 38.4 billion.

Our approach

- Our global food and agribusiness approach focuses on four key transitions:
  1. Report on and reduce greenhouse gas emissions in our portfolio
  2. Improve and preserve land and water
  3. Reduce loss and waste
  4. Increase digitization.
- Through our client relationships and in active partnerships with the United Nations Environment Programme Finance Initiative (UNEP FI), the World Business Council for Sustainable Development (WBSCD), the Food and Agriculture Organization of the UN (FAO), the World Wildlife Fund (WWF) and others, we are working to design and implement the first science-based targets-based measurement system for greenhouse gas emissions in the food and agribusiness sector.
- By doing so, we can and will support our clients' moves toward climate-smart agriculture with tailored financial products and services (e.g. we already invested over EUR 100 million in various funds, including the F&A Innovation Fund and SHIFT Invest).
- We are taking part in the food waste challenge with Samen Tegen Voedselverspilling in the Netherlands, whereby 61 million kilos of food can be saved in Dutch restaurants every year (equivalent to EUR 582 million).

Specific ambitions and targets

- We are committed to the goals of the Paris Agreement and the Dutch Climate Agreement and consider it our shared responsibility to take action. The Dutch Climate agreement includes detailed ambitions for the agriculture and land use sector, with the goal of cutting emissions by 6 Mton by 2030. We support this ambition fully.
- Make a contribution through our enablers, finance, knowledge, network, innovations, e.g.:
  - Finance transition through the value chain
  - Help produce more with less; stimulate innovation
  - Help farmers develop insight into greenhouse gas emissions, impact on soil/water/biodiversity
  - Inform and connect.
- In 2020, we began a new long-term program to activate and train our staff in the international rural domain, to integrate sustainability into their strategic dialogues with clients.
- We have rapidly raised our client engagement approach to a new level in the rural domain, with tooling for international rural regions that gives optimum insights into opportunities, risks and impact across our client portfolio. We already measure the sustainability performance of our larger clients (> 1 EUR million turnover). We engage actively with clients scoring below our sustainability threshold in order to improve their performance and to avoid terminating our relationship. We will include greenhouse gas emissions data in this tooling as soon as the science-based methodologies for food and agribusiness are available. We are actively involved in producing these.

Climate-related products and services

- Green loans for green energy and sustainability initiatives in the Netherlands and other investments to lower the environmental footprint using government-based criteria.
- AGRI3Fund, set up together with UN Environment and FMO, to provide up to USD 1 billion in loans, focused on forest protection and the transition towards sustainable agriculture.
- Solar Financing Products (panel installations often an acre (0.5 hectares) or more in size).
- Digester Financing Products (financing for systems to convert animal waste into electricity/fuel/fertilizer).
- Bilateral and syndicated loan facilities structured on the Green Loan principles of the LMA and the Sustainability Loan Principles of the LMA.
- The Biodiversity Monitor for the Dairy Farming sector, a new tool for standardized quantification of biodiversity enhancing performance.
- We are partner in the Open bodemindex, a tool that provides insights in the development and quality of soil.
- (Social) Impact loan loan for sustainable frontrunners and sustainability initiatives that comply with one of the 44 approved certification schemes. Discounted interest rates apply. In the last five years, we issued over EUR 1 billion of these loans.

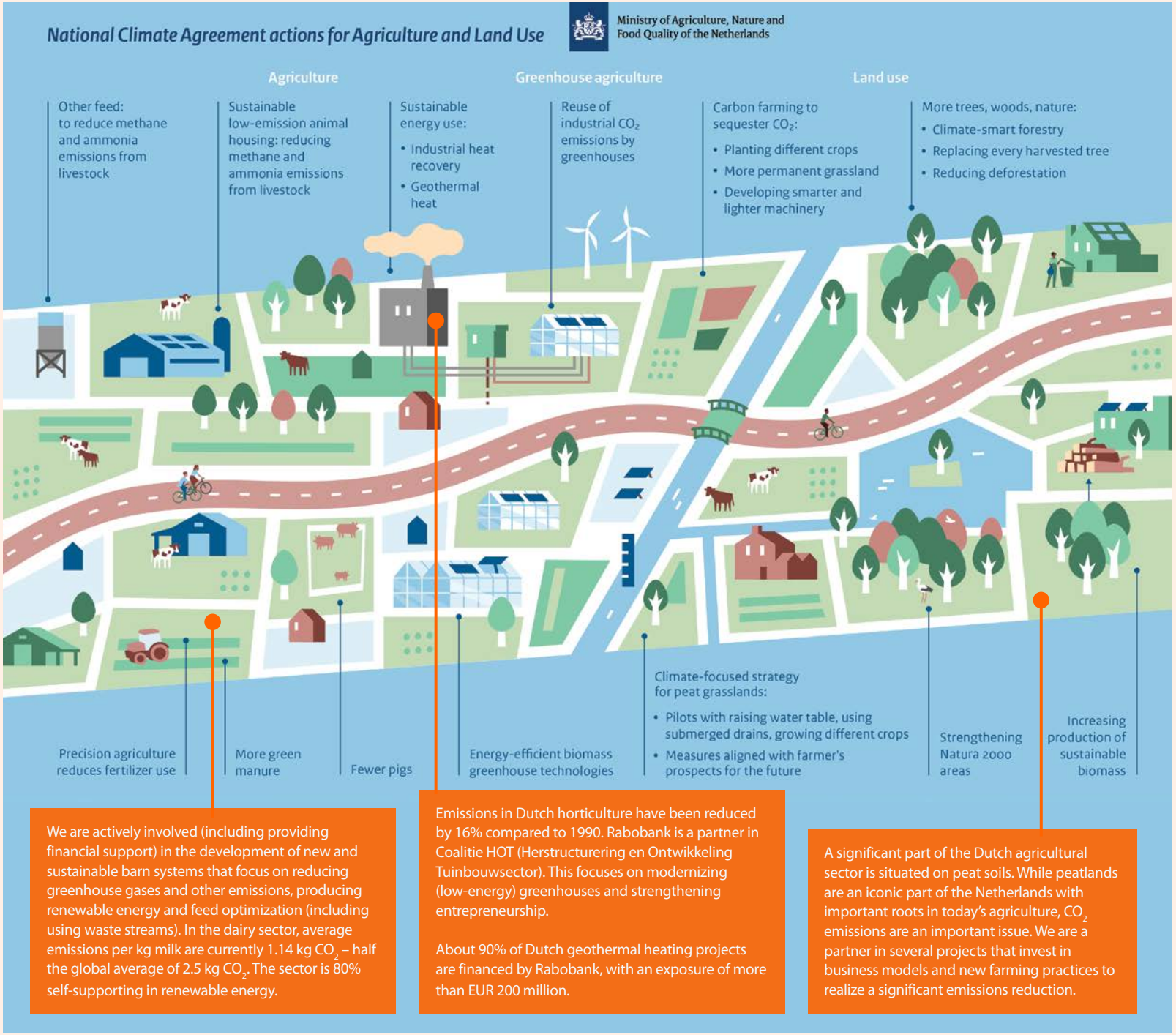
Climate impact measurement

Rabobank is working on setting up Banking for Impact on Climate in Agriculture (B4ICA), an international group that brings together banks, science and relevant experts under the coordination of the WBCSD to address the data gaps in climate impact measurement in agriculture. The purpose is to develop methodologies and tools that:

- Determine the level of emissions in agriculture sub-sectors and set targets for various climate scenarios
- Translate these targets to client level targets
- Estimate a proxy for the carbon footprint of individual farmers, based on information such as farming practices and inputs, and provide levers to reduce company emissions.

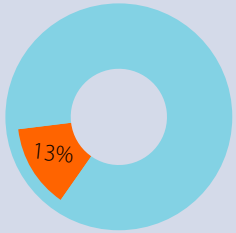
Rabobank's contribution to the Dutch Climate Agreement on Agriculture and Land Use

Rabobank actively contributed to the Dutch Climate Agreement, specifically in the built environment and agriculture and land use sectors.
The agreement includes detailed ambitions for the agriculture and land use sector, with the goal of cutting greenhouse gas emissions by 6 Mton by 2030 (see page 120 of the Dutch Climate Agreement for more details). We support this ambition fully and contribute by offering financial solutions as well as through our network and knowledge. We are currently involved in monitoring the progress of the agriculture and land use agreements and are also helping to steer the finance working group. This is mapping the costs of the needed transitions and the currently available financing. For full implementation and in order to achieve the goals, it is crucial that sufficient financing is available. We have proposed the set up of a EUR 1 billion investment fund to help realize Dutch climate, water and nitrogen targets for the countryside with a specific focus on land around Natura2000 nature reserves and on stimulating circular agriculture. This would provide a new perspective for involving farmers faster. We are currently exploring its feasibility with the Dutch Ministry for Agriculture and a large group of stakeholders.



SME Clients in the Netherlands

Rabobank is the SME market leader in the Netherlands. We believe that a circular economy is of great importance for prosperity, wellbeing and a future-proof economy. Companies that do business in a sustainable and circular manner are more innovative and resillient. They therefore remain more financially sustainable.



- Total exposure loan portfolio is EUR 415 billion (as of 30 June 2020).
- Exposure SME clients in the Netherlands (excl. F&A NL) - EUR 54.4 billion.

Our approach

- We base our ambitions and goals on the Dutch Climate Agreement and envision the first steps to support our clients in making meaningful progress toward a climate-neutral economy.
- Sustainable food and agribusiness and the energy transition are highly relevant themes for our SME clients. Our approach to these themes can be found on the previous and in the following pages.
- Rabobank helps businesses transition into circular enterprises by providing knowledge, networks and financing. Our Circulair Ondernemen Desk helps clients on a daily basis, as do our regional initiatives. Together with our partners KPMG and MVO Nederland, through our Circular Economy Challenges we help customers to create circular action plans. We also have sector specific one-day CE programs and CIRCO tracks to help clients accelerate towards a circular business model.

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- Our finance for Dutch sustainable frontrunners totals EUR 10.1 billion. This includes climate-related products and services as mentioned in the text box below.
- We actively share knowledge about circularity and the energy transition. Examples include the CE Podcast and this CE Research.

Specific ambitions and targets

- Support our clients in their sustainable transition toward 2030, reaching 100,000 clients in 2024.
- Currently, we measure sustainable frontrunners based on our internal sustainability assessment, this includes relevant GHG emission data, if available. We will make sure to align this methodology with leading guidelines and future regulation such as the EU Taxonomy. In 2024 we aim to have 10% of new loans aligned with the leading taxonomy.
- Also, by 2024 we will have a dashboard for all our SME clients including performance measurements for energy and circular transitions.

Climate-related products and services

- Green loans for green energy and sustainability initiatives (through Rabo Groenbank, the largest green bank in the Netherlands with a current volume close to EUR 2 billion of sustainable and climate transition loans).
- (Social) Impact loan for sustainable frontrunners and sustainability initiatives in healthcare and the education sector (discounted interest rate). In the last five years we issued over EUR 1 billion of these.
- Innovation loan for start-ups focusing on circularity
- Impact loan circular for companies with a fully circular business model, we also have a CE desk available for questions on circularity and financing.

Climate impact measurement

After joining PCAF in 2018, Rabobank contributed to the development of carbon accounting methodologies. In order to take the first steps in carbon accounting, Rabobank calculated a first rough estimate of its Dutch (Rabobank local bank) portfolio, though this calculation is accompanied by significant caveats. In the PCAF report, emissions based on sector emissions and our 2017 exposure are included. The table below shows the results based on 2018 data. More recent sector emissions results, provided by the RIVM (the Dutch Institute for the Environment), are currently unavailable. The table shows the total emissions per Dutch sector, our share in the outstanding loans in those sectors and the emissions that can be allocated to our financing, namely 19,088 mln kg CO_2 eq.

Rough estimate of Rabobank's financed emissions in the Netherlands (clients of our local offices), 2018

	NACE category	*Total balance sheet of Dutch sectors mln EUR*	*Outstanding loans Rabobank mln EUR*	*Share Rabobank (out-standing/ total balance sheet sector)*	*Total emissions (mln kg CO_2 eq)*	*Emissions financed by Rabobank (mln kg CO_2 eq)*	*Relative emissions financed by Rabobank (kg CO_2 eq/ EUR)*
A	Agriculture, Forestry and Fishing	34,854	21,109	60.6%	29,911	18,115	0.86
B	Mining and Quarrying	31,218	57	0.2%	2,458	5	0.08
C	Manufacturing	1,117,556	1,164	0.1%	48,783	51	0.04
D	Electricity, Gas, Steam and Air Conditioning Supply	89,331	329	0.4%	47,150	173	0.53
E	Water Supply; Sewerage, Waste Management and Remediation Activities	18,185	97	0.5%	10,139	54	0.56
F	Construction	124,403	1,824	1.5%	3,475	51	0.03
G	Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	508,830	3,421	0.7%	4,170	28	0.01
H	Transportation and Storage	150,554	2,224	1.5%	26,217	387	0.17
I	Accommodation and Food Service Activities	31,990	1,807	5.6%	1,159	65	0.04
J	Information and Commu-nication	142,195	231	0.2%	187	0	0.00
M	Professional, Scientific and Technical Activities	143,120	15,908	11.1%	759	84	0.01
N	Administrative and Sup-port Service Activities	101,178	383	0.4%	2,453	9	0.02
P	Education	5,331	101	1.9%	663	13	0.12
Q	Human Health and Social Work Activities	20,855	3,825	18.3%	-	-	0.00
R	Arts, Entertainment and Recreation	14,972	660	4.4%	553	24	0.04
S	Other Service Activities	8,022	445	5.6%	492	27	0.06
	Totals	**2,542,594**	**53,587**		**178,569**	**19,088**	**0.36**

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Sustainable Assets Under Management for Private Clients

At Rabobank, the focus on sustainability is an integral part of our investment process. All our investment products consist or will soon consist purely of sustainable funds, with the focus on carbon reduction. We also take into account the UN's Sustainable Development Goals in selecting funds. Total assets in sustainable funds amounted to over EUR 11 billion as of 30 June 2020.

Our approach

In the Netherlands, we offer three asset management products: Rabo Beheerd Beleggen Basic, Active and Exclusive. The Basic product is 100% sustainable as of 30 June 2020. The Active and Exclusive products are moving towards 100% full sustainability as shown in the table below. The five key criteria regarding sustainable investing are:

- Our funds have a 30% lower CO_2 intensity compared to worldwide indices.
- We exclude companies that are active in controversial weapons, tabacco, coal and tar sands or that do not comply with the ten UN Global Compact principles.
- We actively engage with companies on sustainability, using our right to vote.
- We screen funds to ensure that they meet Rabobank's sustainability goals and the UN's Sustainable Development Goals - including climate change and the energy transition, and also health and wellbeing.
- Clients can select funds that fully reflect their own choices.

Specific ambitions and targets

- Our funds will have a 30% lower CO_2 intensity compared with worldwide indices in 2020. And a 50% lower CO_2 intensity in 2024.
- By 2023, we will have implemented a uniform voting and engagement policy for our investment funds on behalf of our clients in which we use our engagement power to support climate-proof business strategies of the companies we invest in.
- By 2024, all investment and financial specialists including private bankers and assistants will have followed an education program in sustainable investing.

Climate-related products and services

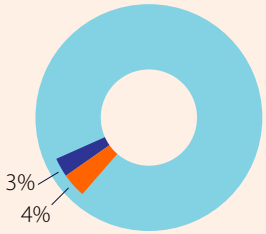
- First dark green mandate funds

Assets under management in funds with a sustainable character (% in line with the five key criteria, see above: our approach):

Name of fund	*December 2019*	*June 2020*	*June 2024*
Rabobank Beheerd Beleggen 'Active'	44%	78%	100%
Rabobank Beheerd Beleggen 'Exclusive'	24%	74%	100%

Leasing Activities for Corporate Clients

Our subsidiary DLL partners with clients to develop innovative and sustainable financial solutions. These deliver meaningful value to the world, as reflected in DLL's vision statement Partnering for a Better World.



- Total exposure loan portfolio is EUR 415 billion (as of 30 June 2020).
- Exposure DLL non F&A clients EUR 17.9 billion.
- Exposure DLL F&A clients EUR 14.5 billion (this exposure is also shown in the total exposure of food and agribusiness international clients as depicted on page 10).

Our approach

DLL is an enabler for circular and usage models:

- DLL encourages and supports partners in transitioning to a more sustainable and responsible business model that embraces the circular economy.
- Through our Life Cycle Asset Management program, we provide end-to-end financial solutions for the complete asset life cycle. New service-based financial solutions, such as pay-per-use programs, can help unlock circular and usage-based models.
- DLL promotes renewable energy usage through its clean technology business and enables green assets usage.

Specific ambitions and targets

- Annual growth of sustainable business as a percentage of total new business volume:
  - 10% UEF (used equipment finance) new business volume in 2023.
  - 25% annual growth of cleantech.
- Deepening customer relations through partner assessments and engagement: 100% integrated sustainability profiles of their main vendor partners and more than five sustainability initiatives per year.

Climate-related products and services

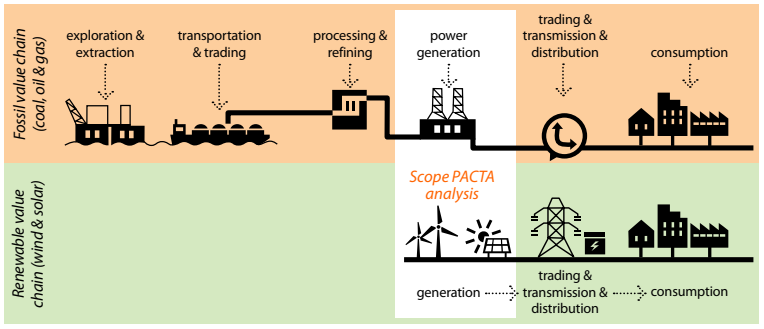
- Clean technology financing
- Pay-per-use programs
- Used equipment financing

Accelerating the Energy Transition

The energy sector is key in driving the transition to a low-carbon society. Rabobank wants to lead the way to the energy transition by:

- Being a relevant and indispensable partner for clients and markets.
- Continuing to finance the growth of the generation and use of renewable energy.
- Accelerating innovative technologies such as hydrogen, carbon capture, utilization and storage, geothermal energy and energy storage.
- Ensuring that our portfolio of energy activities continues to outperform the key external benchmark, IEA's Sustainable Development Scenario (SDS).

This section discusses decarbonization pathway assessment and our ambitions for the power generation portfolio. This is a substantial part of our energy portfolio.



The energy sector value chain

The energy sector value chain consists of upstream, midstream and downstream activities. From an emissions perspective, the upstream activities (energy exploration, extraction and power generation) are considered to be the drivers of emissions and are therefore key in steering the transition to a low-carbon society. As our upstream oil and gas exposure is not material, we will focus on power generation, in which our financial exposure is the most substantial (EUR 4.4 billion). Our business in the upstream power generation sector is primarily through the following business lines:

- Export and project finance
- Large corporate clients.

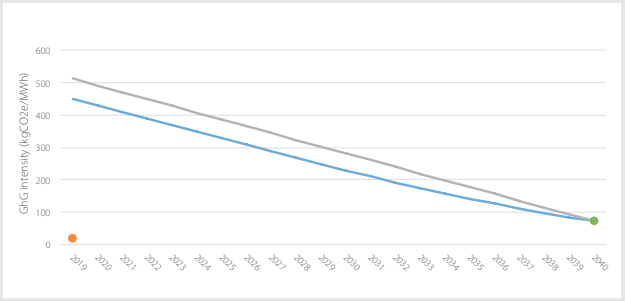
Our activities in the distribution of energy streams through our trade and commodity financing are also key in helping to navigate the energy transition.

Benchmarking our portfolio

An in-depth look at our groundbreaking PACTA pilot shows that our power generation portfolio beats the market.

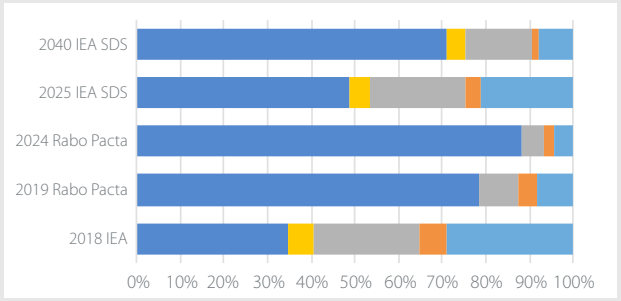
In carbon intensive sectors like power generation, various tools allow measurement against and alignment with climate scenarios and decarbonization pathways. We have assessed our global power generation portfolio (based on the 2019 balance sheet) using the PACTA (Paris Agreement Capital Transition Assessment) tool (in beta) for banks, comparing our portfolio to the market. Separate from PACTA we have also compared the carbon intensity of our portfolio (loan-weighted) against the global decarbonization pathway for power generation. On top of this, we have compared our power generation portfolio to the Beyond 2°C Scenario (B2DS) decarbonization pathway (as per the SBTi's SDA approach). Given that our portfolio is heavily weighted toward renewable assets, both analyses confirm that our portfolio beats the market and the B2DS scenario by a significant margin and in fact already beats the 2040 convergence target.

Power generation decarbonization pathway



Carbon intensity metrics are calculated at portfolio level by applying emission factors for technologies based on the World Energy Outlook 2019 (WEO) and by allocating the power generation loan portfolio to each of the technologies. Ring-fenced project finance loans are always directly allocated in full to the technology that is financed by the loan whereas corporate loans are allocated to the technology mix of the borrower in proportion to the installed capacity for each technology in the total installed capacity for that borrower. The carbon intensity of our portfolio can then be compared against B2DS or the market. Note that the line for global market is interpolated between the carbon intensity of the global market in 2019 and the 2040 B2DS convergence target to show the relative steepness of the required ambition.

Global electrical capacity technology mix



This table shows the global technology mix of the power generation sector, based on installed capacity (GW). The IEA 2018 bar represents the global technology mix in 2018; the 2025 and 2040 IEA SDS bars represent the future technology mix in the sustainable development scenario. The Rabobank 2019 and 2024 figures represent our financial portfolio-weighted technology mix, calculated using the PACTA-methodology for banks. Both mixes are based on power generation capacity considering that PACTA uses forward-looking capacity development as a proxy for transition in the sector. As the tool is currently tested in beta, we identified a substantial overstatement of coal, oil and gas in our technology mix which we were able to trace back to the calculation performed in the tool. We expect this to be rectified to show more accurate results. The Rabobank 2024 figures represent how our current portfolio would evolve as a result of changes in the underlying technology mix of our clients, if our loan portfolio itself remains unchanged. Either way, our portfolio in 2019 shows a loan-weighted technology mix that even with the overstatement is already ahead of the IEA SDS projected mix for 2040. It should be noted that the output of the PACTA analysis does not represent actual lending figures.

Sources: IEA World Energy Outlook 2019; PACTA analysis supported by 2d Investing Initiative

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Targets for our four client groups

Specific ambitions and targets

- We will not directly finance the exploration, extraction, production or refining of coal used for power generation and of shale gas and other non-conventional fossil fuels. We will replace coal with less environmentally harmful energy carriers in all our financial dealings as soon as possible. For clients for whom coal for energy generation contributes to their revenue, we expect that they report to Rabobank on their relative and absolute revenue in thermal coal trading or utilization from 2020 onwards, have a maximum relative revenue in thermal coal trading or utilization of 5% from 2020 onwards, and commit publicly to the Paris Agreement goals for climate change and to continuously reduce their absolute revenue in coal trading or utilization from 2020 onwards.
- We see a relevant transitional role for gas because it is cleaner than coal and it is a back-up fuel in the further electrification of our energy system. It is clear that the role of natural gas will eventually decline as well, as clean energy solutions provide alternatives, as outlined in the IEA SDS.
- With our new Banking the Energy Transition program we aim to accelerate the execution of our energy transition ambitions. This program includes our retail, SME, mid- and large corporate clients. Focus areas include sustainable housing, energy as a service, leasing solutions and green power distribution.

Project finance clients

- We aim to further grow our renewable energy portfolio and maintain our position as a global top 10 player as Lead Arranger in Clean Energy, as calculated by Bloomberg (we were positioned number one in this ranking in the first half of 2020). Our ambition is to grow new business in the renewables sector by 20 – 30%* annually for the next 3 years.
- We aim to accelerate the innovative technologies required to realize the energy transition. Just as we have been a first-mover in offshore wind, we want to be an early mover in the financing of selected new technologies with an expected high impact, namely hydrogen / carbon capture, recycling (including tackling the global plastic waste problem), and storage.

Large corporate clients

- Our goal in the energy transition is to achieve the goals set out in the Paris and Dutch Climate Agreements by supporting all of our large corporate clients to make the necessary transitions and investments to reduce greenhouse gas emissions.
- We will expand our client base in the clean energy and related sectors in Northwest Europe to increase our involvement in and exposure to large-scale investments in clean energy projects. As the energy system in this region is increasingly interconnected, we want to support the frontrunners in their efforts to build a low-carbon energy system. This includes investing in and scaling up proven technologies such as gas, wind and solar, but also new clean technologies such as hydrogen, storage and network solutions, carbon capture and storage, e-mobility and recycling.

Trade and commodity finance clients

- We will increase the share of natural gas (an energy transition fuel) to about 25% of the trade and commodity finance energy portfolio by 2025.
- We will ensure that the global portfolio of energy trade finance activities develops in line or outperforms the IEA SDS. This means we reduce the volume of traded oil we finance, following the IEA SDS trend line.

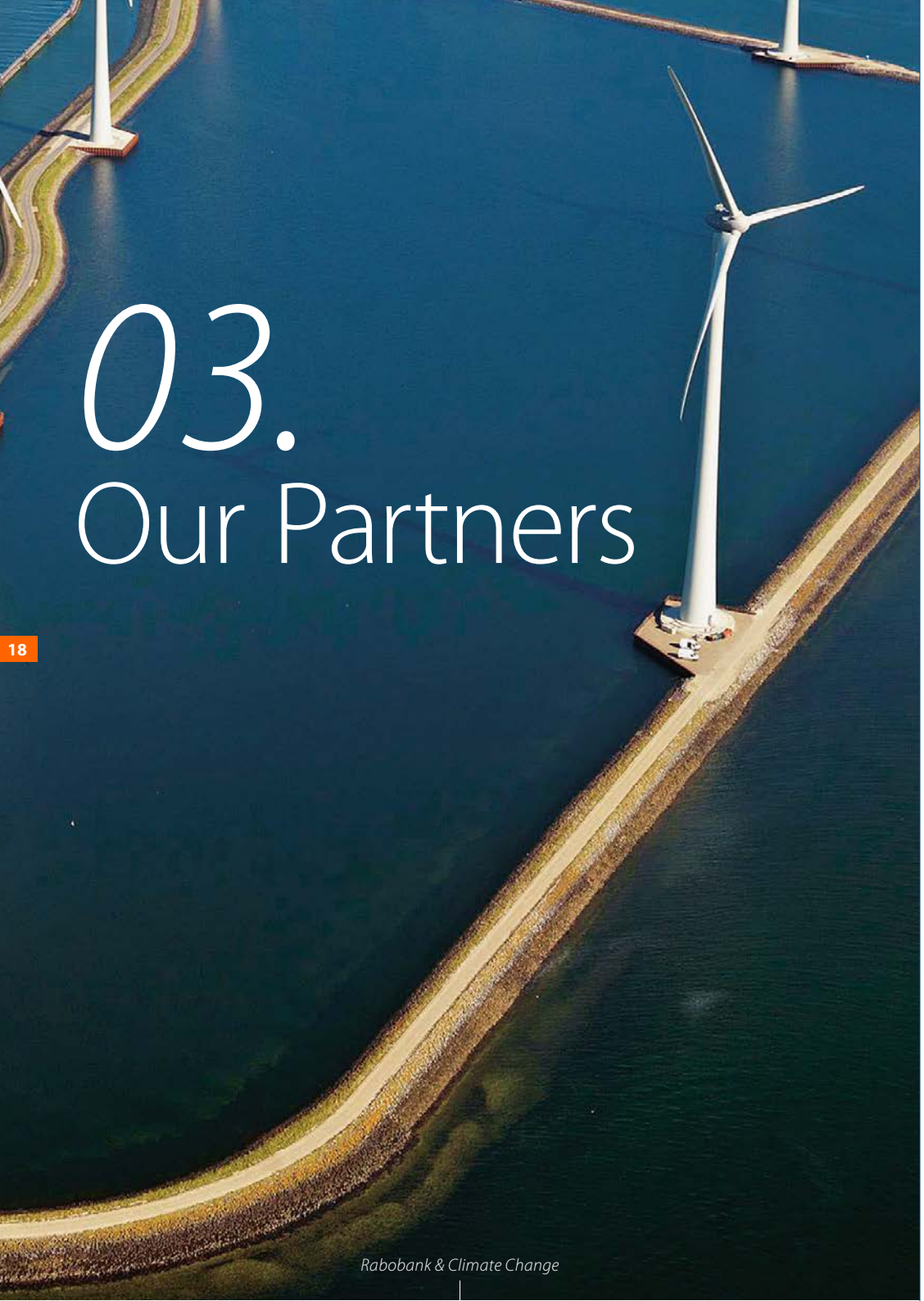
SME clients in the Netherlands

- We support our clients with our knowledge, networks and financial solutions and we will continuously increase our financing of small- and large-scale green energy projects.
- We have developed roadmaps for helping our SME clients in the Netherlands with their energy transition. These will be implemented in the coming years.
- We offer all our customers a green loan to grow their business sustainably.

* This percentage is calculated by taking the gross new growth ambition in the renewables sector as a percentage of the total renewable energy portfolio (baseline 2019). This does not take into account fluctuations in our total renewable energy portfolio caused by refinancing, depreciation etc, and therefore it does not reflect the net growth of our total renewable energy portfolio.

Climate-related products and services

- Local energy cooperatives generate energy on a small scale, for example with the help of solar panels, biomass, geothermal energy or their own wind turbine. These initiatives fit very well with the cooperative, decentralized structure of Rabobank and we encourage our clients to take these initiatives forward.
- Developments in geothermal energy are also continuing. The horticulture sector in the Netherlands' Westland is a pioneer in geothermal energy. As a major financier in the food and agribusiness sector, Rabobank is involved in 90% of the Dutch geothermal heating projects.
- Active engagement with Trade and Commodity clients in all stages of the energy value chain. This includes advising clients on sustainability policies, supporting sustainability initiatives and financing the agricultural, energy and metal commodities and trade flows.
- Bilateral and syndicated loan facilities structured on the Green Loan Principles of the LMA and the Sustainability Loan Principles of the LMA (Loan Market Association).
- The 'Nationaal Warmtefonds' activates homeowners, homeowners associations and schools to make their properties sustainable. So far it has financed more than 75,000 energy-savings measures. Rabobank is pleased to contribute to the fund by providing max. EUR 350 million in the form of loans and guarantees.
- Planned deployment of a cargo vessel emissions accounting tool indicating GHG-emissions of client-owned or chartered vessels.
- Through our subsidiary DLL, tailored cleantech products enable innovative wind and solar solutions. Our cleantech portfolio has grown steadily to just over EUR 400 million in 2019.
- We support SME clients in the Netherlands with the raboduurzaamvastgoed.nl toolkit and through our Energieke Regio partnership.



03. Our Partners

We actively contribute to the public debate on climate change and to developing guidelines and new regulations by being an active partner and member of several organizations.

Nederlandse Vereniging van Banken

Member of the NVB Working group Climate
Chair of the NVB Working group Transparency

wbcsd

Member and co-chair of the Climate Smart Agriculture Working Group
Co-founder and chair of Banking for Impact on Climate in Agriculture (B4CIA) project

TCFD Task Force on Climate-Related Financial Disclosures

Active member to both the first and second pilot projects for implementing the TCFD Recommendations for banks

PCAF Partnership for Carbon Accounting Financials

Member of PCAF Mortgages Working Group
Member of PCAF Corporate Loans Working Group
Chair of the PCAF Stakeholder Engagement Working Group

European Association of Co-operative Banks

Chair of the Green and Sustainable Finance Working Group

UNEP Finance Initiative

Founding member of the Climate Resilience Risks and Opportunities Coalition (ClimateRROC)
Member of the Impact Working Group for the implementation of the Principles for Responsible Banking

WWF

Partnership with WWF, working together with clients and prospects on the transition to a more sustainable food and agribusiness sector

Sometimes issues come to our attention through NGO reports and dialogues, or through media exposure. When such reports involve our clients, our issue engagement process is triggered. Taking advantage of the trusted relationships we enjoy with our clients, our relation managers try to use our leverage for necessary fact-finding and improvements. In 2019, we had 45 active engagement procedures with clients, including 11 on impacts on ecosystems and landscapes and six on pollution. See for more details Appendix 4 of our Annual Report 2019.

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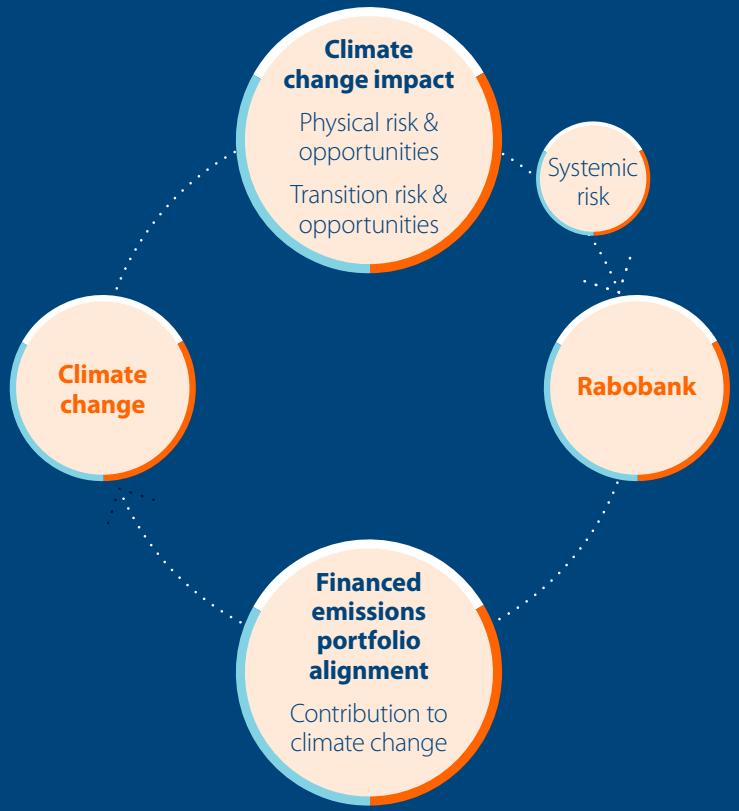
Background Information



I. Climate Metrics

We observe that there are two ways of looking at climate change: Rabobank's climate impact on the one hand, and the impact of climate change on the bank through its customers on the other. Traditionally, the link to climate was seen through the lens of contribution to climate, but in recent years the focus has shifted to the latter as regulators (starting with Mark Carney of the Bank of England in 2015), earmarked climate change as a possible source of systemic risk.

Overall, climate change metrics are still at an early stage of development so there still is a wide variety of approaches and the data gaps are considerable. However, in broad lines climate change metrics can be defined along the two views described above. On the contribution side, the approaches boil down to either portfolio alignment with a certain climate scenario (such as PACTA) or financed emissions (such as PCAF). On the climate change impact side, the TCFD guidelines provide a comprehensive framework on which aspects should be considered for assessing climate risks. Opportunities are driven by the same considerations and are the flipside of risks, also in terms of metrics. Companies with low risk may benefit when risks materialize, while companies at high risk may profit from investing in reducing their vulnerability to climate risk. As a result, physical risks translate to adaptation opportunities, and transition risks translate to mitigation opportunities.

The common factor in these two ways of looking at climate change is the carbon footprint. An accurate carbon footprint can be used both for assessing the financed emissions and the transition risks in Rabobank's portfolio. The development of climate metrics is changing rapidly. Rabobank is the only Dutch bank to have participated in the first attempt to quantify climate change risk, the first UNEP FI TCFD pilot, whereby important steps were taken toward bringing scientific climate scenarios closer to credit metrics and developing methodologies for portfolio assessment of risk. Rabobank was also an early participant in PCAF, which focuses on measuring the contribution of financial institutions to climate change by estimating financed emissions.

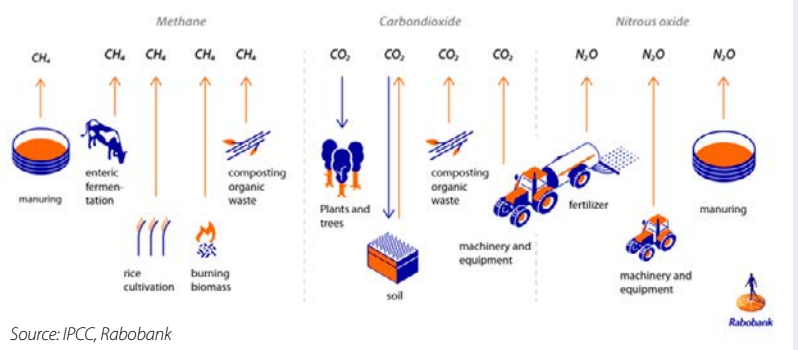
II. The Challenges of Assessing the Transition to a Low-carbon Economy in Agriculture

The challenges for developing metrics for the agriculture sector are significant. For assessing the transition risks and opportunities of a portfolio consisting of businesses we ideally need both top-down metrics and bottom-up information. Top-down metrics include the GHG emissions of a sector (including sub-sectors), the decarbonization pathway for the sector according to the 2 or 1.5 degrees scenario, and the translation of this sector target to company level targets. Bottom-up information comprises the emissions of individual companies. PACTA is a capacity-based tool that is better suited to homogenous sectors like the ones covered by the methodology where forward-looking capacity data and climate scenarios are available to model future alignment based on technology mixes and volume trajectories. Agriculture, however, is a much more complex sector. Bottom-up data, the carbon footprint of companies, is scarce, scattered and inconsistent. Carbon footprinting in agriculture is a very complex exercise given the need for a supply chain approach, the heterogeneous product offering and the number of processes involved (see figure 3). For some of these processes, such as carbon sequestration, science has not even reached an agreement on the methodology.

Science has also not yet agreed on a way of assigning emissions to the agriculture sub-sectors. Countries report to the United Nations Framework Convention on Climate Change (UNFCC) according to the CFR framework. This is a process-based classification of emissions, but does not help one estimate where a sub-sector stands. For energy, the translation is relatively straightforward (figure 2), but for agriculture it is not (figure 3). As a result, there is hardly any information on the GHG emissions of various sub-sectors (such as dairy cattle or horticulture) in agriculture, let alone decarbonization pathways at this level of granularity. Acknowledging this backdrop, Rabobank has taken the initiative to convene an international working group. This will unite the financial sector, academics and other relevant experts. It will develop a methodology for establishing where sub-sectors within agriculture stand, which decarbonization pathways they should follow, how to translate them to targets for individual companies, and which levers individual companies have to steer toward these targets. Where possible, we are also looking into the development of client-specific carbon-footprint tools and we are exploring the role that satellite data and life-cycle assessments can play in this.

Figure 1

Processes included in the carbon footprint of a farmer



Source: IPCC, Rabobank

Figure 2

Translation of CFR processes to economic activities in the energy sector: one-to-many mappings

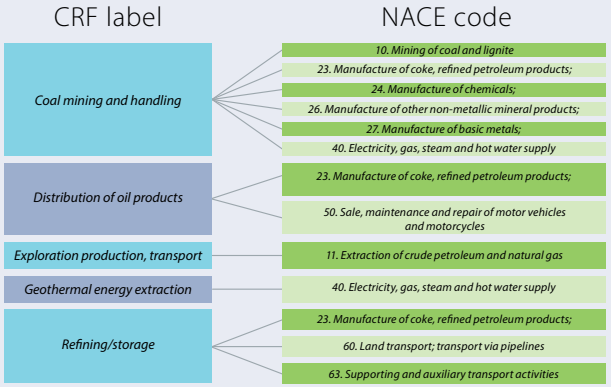
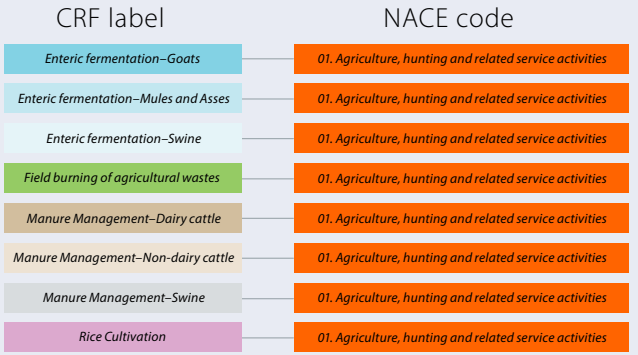


Figure 3

Translation of CFR processes to economic activities in the agriculture sector: many-to-one mappings



III. Technical Challenges in Assessing Physical Risks of the Mortgage Portfolio in the Netherlands

Another example illustrates how, even in cases where the information is abundant, we still run into important data gaps. We have dived into the physical risks of the mortgage portfolio in the Netherlands. Looking into the climate-related risks of damage to the foundations, we found useful data sources to indicate the risk of rotten foundations to residential real estate. Climate Adaptation Services (CAS) provides an extensive dataset for this purpose (figure 4), indicating which neighborhoods are prone to be affected by rotten foundations until 2050. However, the coverage of the CAS data is insufficient, as it only covers a small portion of the Netherlands and only small portions of urban areas.

After analyzing the CAS data and the methodology behind it, we realized that it could be possible to expand the forward-looking risk indicator of rotten foundations to the entire country. In order to make this estimation, we used two additional data sources: the public Basisregistraties Adressen en Gebouwen (BAG) data of the Dutch Land Registry and the foundation-problem data of Kennis Centrum Aanpak Funderingsproblematiek (KCAF). The BAG data is used to derive the fundamental building characteristics by utilizing big data development tools in the cloud environment, since processing this data requires intensive computational resources. The foundation problem data of KCAF is used in conjunction with CAS data to develop a machine-learning algorithm to estimate soil properties by employing state-of-the-art validation methodologies like geo-spatial cross validation. The outcome is a forward-looking (until 2050) estimation of the rotten foundation risk of residential real estate for almost every corner of the Netherlands (figure 5). With this analysis, Rabobank is glad to help tackle a major challenge in order to reverse the trend.

Risk of damage to real estate foundations in the Netherlands

Figure 4

Based on CAS data

Figure 5

Based on combined data of CAS, BAG and KCAF