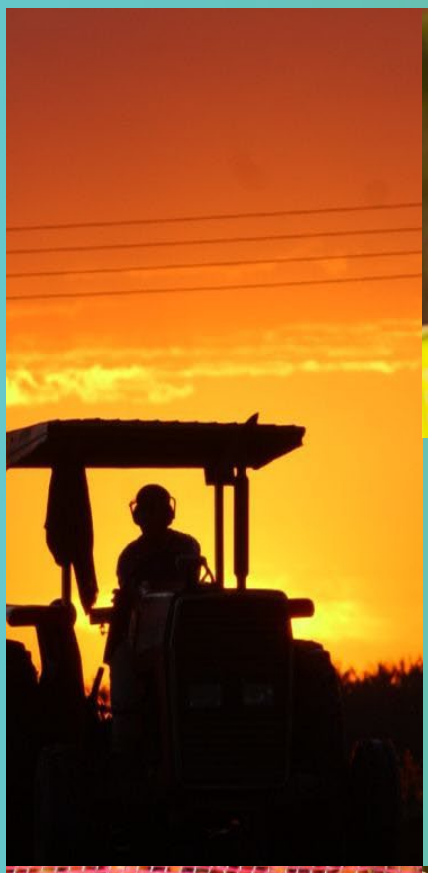
Neumann Kaffee Gruppe



CLIMATE ACTION PLAN 2023

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Executive Summary

Neumann Kaffee Gruppe (NKG) is a leading coffee trader and marketer that is deeply committed to sustainability and resilience. Our Climate Action Plan (CAP) serves as a strategic framework that aligns our business strategies with the Paris Agreement and the Science Based Targets Initiative (SBTi), demonstrating our unwavering dedication to environmental responsibility. Our CAP emphasizes both mitigation and adaptation approaches, ensuring that our operations are both environmentally sustainable and financially viable.

NKG's CAP is a comprehensive and holistic approach to sustainability that is built upon the foundation of our Responsible Business Program and the 2022 Corporate Carbon Footprint assessment. This comprehensive framework encompasses governance structures, strategy, risk management, metrics, and targets, ensuring that our climate action initiatives are overseen and implemented effectively across all levels of the organization.

To ensure robust oversight of our climate action initiatives, NKG's dedicated Climate Change Advisory Board plays a pivotal role in guiding the company's strategic approach. This board provides expert guidance and ensures that our climate action strategies align with NKG's overall business objectives.

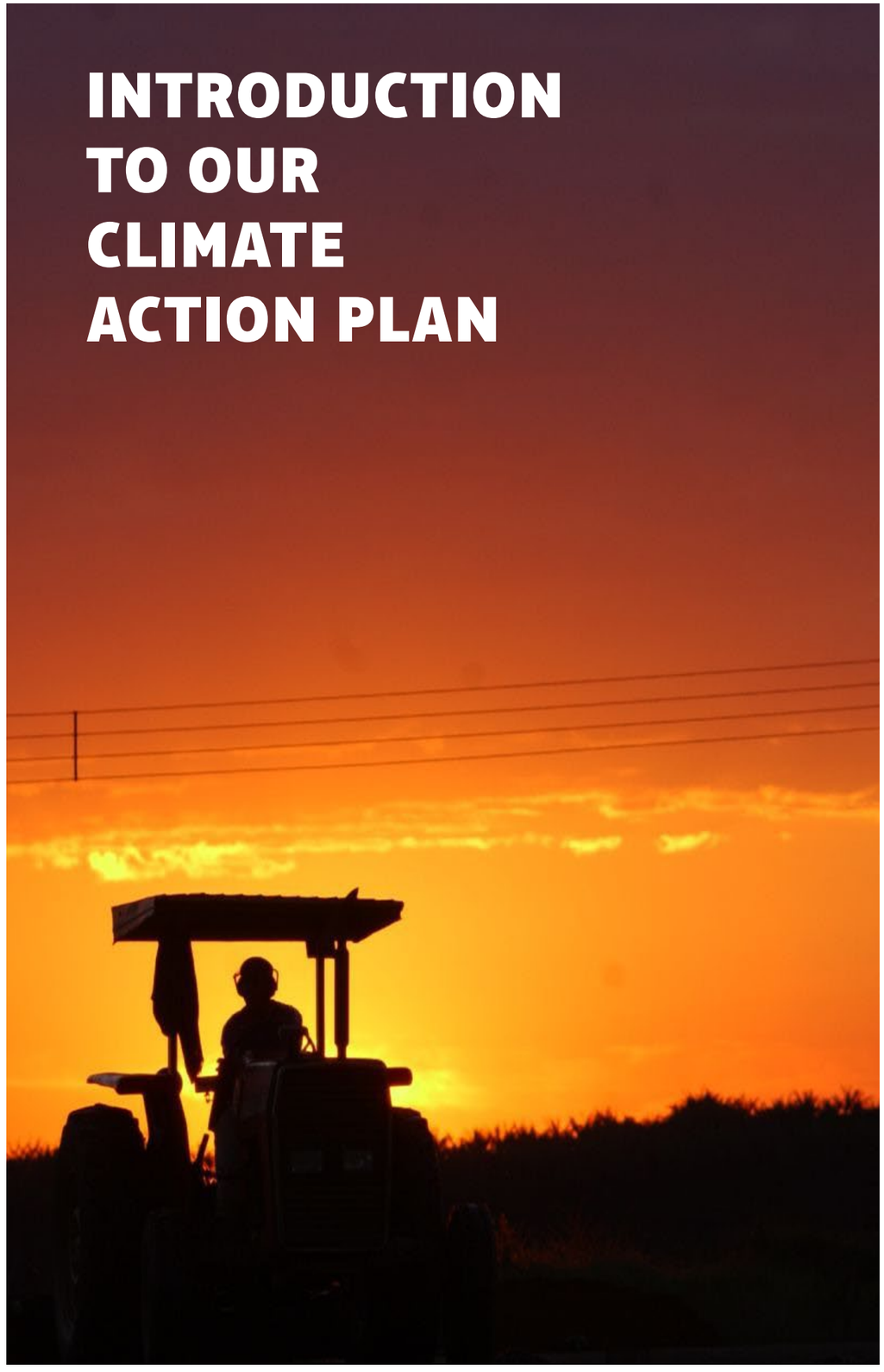
Our CAP sets ambitious mitigation targets, aiming to reduce greenhouse gas emissions by 3% in 2024 and 6% in 2025, excluding emissions from coffee farms. Additionally, we target a 3.03% reduction in scope 1 emissions from our own coffee farms for 2024 and 2025 in alignment with the FLAG SBTi guidance. Due to the complexity of targeting scope 3 emissions a reduction target is not yet set. In 2024, our focus will be on acquiring primary data pertaining to scope 3 emission categories. This data will serve as a foundation to evaluate the feasibility of committing to specific scope 3 reduction targets.

Our Climate Change Risk Assessment is a critical component of our CAP, identifying and categorizing potential risks associated with climate change. This assessment guides our prioritization of mitigation and adaptation strategies, enabling us to minimize financial and operational risks while maximizing opportunities arising from climate change.

The Climate Transition Plan meticulously outlines both short-term and long-term targets, providing transparent evidence of NKG's unwavering commitment to sustainability. This plan serves as a roadmap for achieving our ambitious goals and ensuring that NKG is a leader in sustainable coffee production.

NKG's commitment to sustainability is evident in its proactive identification of emission reduction levers, alignment with TCFD recommendations, and strategic initiatives such as carbon sequestration and deforestation-free status. These efforts ensure the company's long-term profitability while mitigating climate change risks.

INTRODUCTION TO OUR CLIMATE ACTION PLAN



Introduction to our Climate Action Plan

In 2020, Neumann Kaffee Gruppe (NKG) embarked on a transformative journey, revising our sustainability strategy, and developing the Responsible Business Program (RBP) in close collaboration with various stakeholders. This program has since served as our guiding framework, underscoring our unwavering commitment to four key focus areas: our people, supply chains, producers, and the planet. Within this framework, our dedication to addressing climate change within the "planet" focus area led us to conduct our inaugural Corporate Carbon Footprint assessment in 2022, focusing on data collected throughout 2021. This initiative marked the beginning of our efforts to monitor and mitigate our environmental impact.

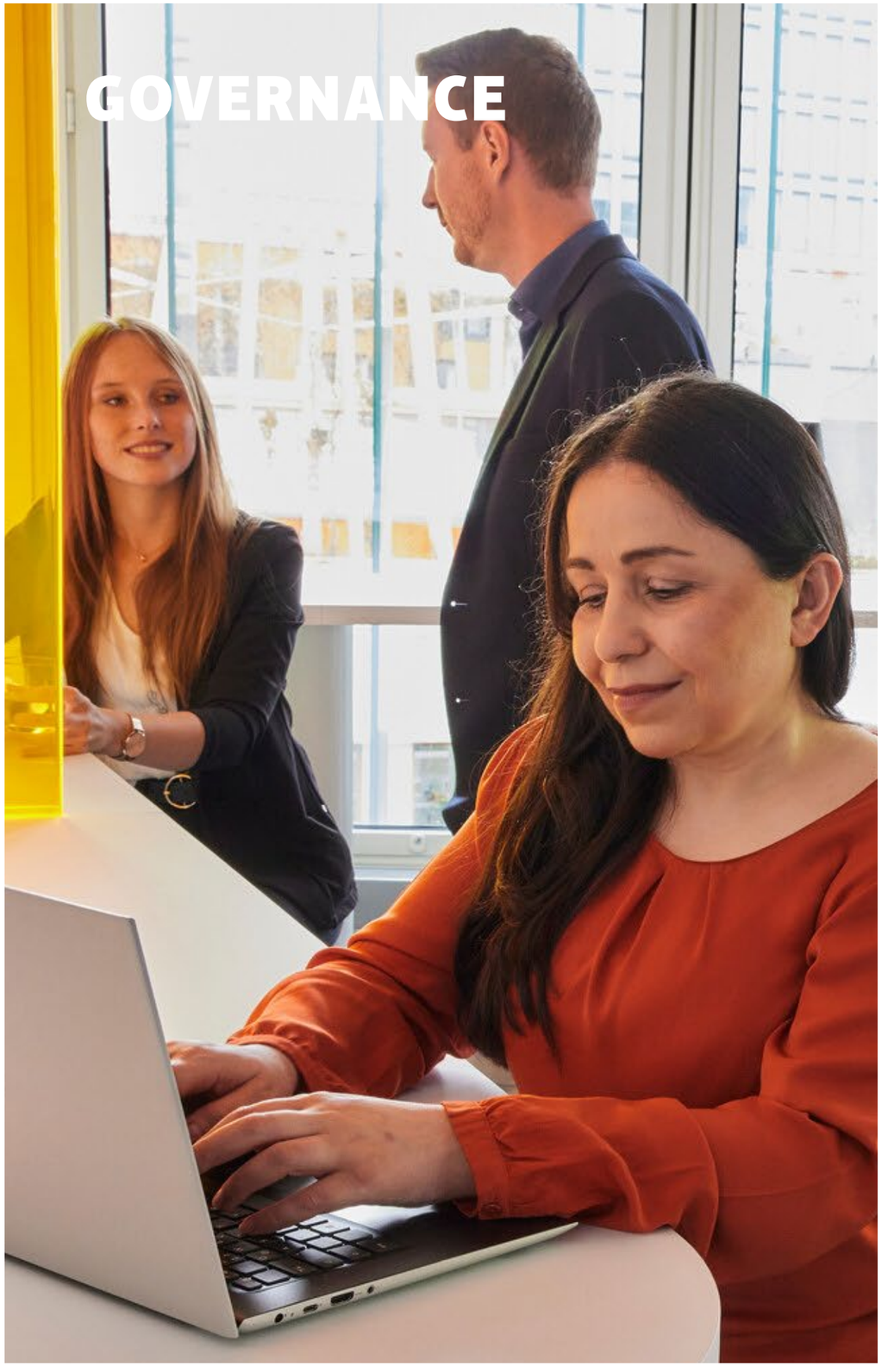
As the world's leading coffee trader and marketeer, NKG fully acknowledges the far-reaching consequences of climate change for our stakeholders and our business. To mitigate our impact on climate change and adapt our business to the current and expected changes, NKG has adopted a purpose-driven strategy. The aim is to embed climate change mitigation and adaptation into our business decisions, from where and how we build mills to the farming practices we promote among our suppliers.

Related to mitigation, we aim at achieving a minimum 3% for scope 1 and 2 (excluding emissions from our farms) in 2024 and 6% for scope 1 and 2 (excluding emissions from our farms) for 2025. For our farms we aim at achieving a reduction of 3.03% for scope 1 (scope 2 is not applicable) in 2024 and 2025 in line with SBTi's FLAG Guidance. We will use 2022 as a baseline year. This commitment is ambitious, yet aligns with the objectives of the 2015 Paris Agreement and the Science Based Targets initiative and is the common understanding of what is needed to prevent catastrophic effects of climate change. If the world continues with "business as usual" activities, global temperatures could rise between 2.5°C to 4°C by the end of the century, as outlined by the IPCC (2021). For coffee, estimates indicate that this could result in up to 50% decline in global area suitable for coffee cultivation.

Related to adapting our business, the basis is to understand our risk exposure. By analyzing the impact of climate change on our most critical coffee origins, we have accumulated valuable insights and data. This extensive research has brought us to a point where we now possess a comprehensive understanding of the challenges at hand, enabling us to take purposeful action.

It is this clarity and commitment to sustainability that has led us to develop a comprehensive Climate Action Plan, aligning with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. This plan encompasses governance, strategy, risk management, and targets & metrics, further solidifying our dedication to responsible business practices.

In the pages that follow, we will detail our Climate Action Plan, outlining the measures we will undertake to address climate-related challenges and contribute to a more sustainable future. This is a living document and achieving the ambitious targets will require each and everyone at NKG to consider what this means for their work and what it takes to reach the targets. Along the way, we are committed to transparency and accountability, and we will continue to enhance our climate-related disclosures, updating our governance as needed, refining our annual report content, and providing annual emissions inventory reports. Together, we can forge a path toward a more resilient and sustainable world.



Governance

As a privately owned and responsible company, NKG has always understood that there are extensive environmental and social challenges within our value chains, especially in the coffee producing companies and that these responsibilities need to be shared and can only be resolved together. Today, we find many of our convictions and principles find a voice in the recommendations set by the Task Force on Climate-related Financial Disclosures (TCFD). Our governance model operates across various levels, ensuring a comprehensive and integrated approach.

Board-Level Governance

The shareholder and Board of Management take primary responsibility for steering the company's strategy, organization, and oversight concerning climate-related issues. We've established a Climate Change Advisory Board to support this governance. This body is entrusted with executing the Climate Action Plan, monitoring progress, adapting strategies as needed, including suggestion to include climate change targets in management payment strategies or internal carbon pricing mechanisms, and aligning efforts to meet emission reduction goals set in our environmental policy. The Climate Change Advisory Board meets quarterly to ensure alignment towards our defined climate goals. It informs the Board of Management biannually and ties in directly when needed.

Management-Level Governance

The implementation of our climate action plan is delegated to specific departments. The Group Compliance & Responsible Business Program department evaluates climate risks in crucial coffee origins and assesses our environmental impact, focusing on the analysis and reduction of our carbon footprint, water usage, waste management, raw material sourcing, and energy consumption (which encompasses Scope 1, Scope 2, Scope 3 except farm related emissions). The Sustainable Business Unit supports group companies in understanding climate change impacts and drivers, reducing emissions and adapting to climate change at farm

level; and in collaboration with suppliers and customers, especially within NKG Verified and NKG Bloom supply chains.

Operational Level and Coordination

Strategic oversight and risk management for the entire group lie with the holding company. Climate metrics and targets will be integrated into the yearly business plans of each company within the group, aligning with the objective of achieving emission reduction targets. These business plans will incorporate specific targets and associated annual budgets to accomplish the pre-determined yearly emission reduction goals. The results of the climate risk assessments and market requirements on climate change, shall further be reflected in the business strategy of each company. For the implementation of projects, both the Group Compliance & Responsible Business Program and the Sustainable Business Unit will leverage the expertise of professionals across NKG. A specialized team will be formed to ensure comprehensive coverage, merging the expertise of leading departments at the corporate level with the unique knowledge of local experts.

In summary, our governance framework's strategic committee structure, detailed operational responsibilities, and structured reporting system reinforce a holistic and strategic approach to address climate change. By implementing a collective vision, monitoring progress consistently, and ensuring transparent reporting, we can collaboratively combat climate change while aligning with TCFD recommendations.

Strategy

While we understand our limited influence and possibilities, NKG is unconditionally committed to living up to its responsibilities beyond announcements. In 2022, NKG took a proactive step in addressing climate change by conducting its first Climate Change Risk Assessment (CCRA). As the leading coffee trader, the company recognizes the global challenge of climate change and the need to take immediate action. Through this exercise, NKG identified climate risks that may impact the different value chains in the origins, with the intention of developing strategies to increase the resilience of production, promote the creation of carbon sinks and preserve its permanence as a leader in the coffee sector over time.

NKG understands that climate change risks can lead to supply chain disruptions and reputational damage. However, NKG also sees opportunities to assist its customers in transitioning to sustainable coffee products and services. To effectively address the challenges posed by climate change, NKG has developed a climate resilience strategy that recognizes the potential impact of climate-related risks and opportunities across its value chain. Particularly, NKG evaluated the time horizon of each risk and opportunity, and, for the development of a climate resilience strategy, short term (5-10 years) and long term (15+ years) horizons were considered.

The company's commitment to tackling these risks and opportunities is a crucial step towards achieving its objective of aligning emission reductions to limit global warming to 1,5°C by 2050. Through its climate resilience strategy, NKG is taking a proactive approach to addressing the challenges of climate change, ensuring the long-term sustainability of its business and the wider coffee industry.

Climate transition plan

Our corporate carbon footprint measurement exercise clearly shows which areas are critical to focus on in the short and long term. After analyzing the information collected and calculating the corresponding emissions from the different NKG companies, it was determined that a total 3,282,230 tons of CO2e were generated during 2022, **whereby**

16,514 tons of CO2e were generated in Scope 1, 7,881 tons of CO2e were emitted in Scope 2, and 3,257,835 tons of CO2e were estimated in Scope 3. This result is the aggregate of the emissions generated by the 42 companies considered: 17 exporters, 17 importers, 5 service companies and 3 coffee farms, both in operations and within their supply chains.

Short term emission reduction targets

Science-based targets can be divided into two categories: short-term and long-term. Short-term targets focus on reducing emissions by 2030 from a previously established baseline.

Considering the existence of two distinct inventories—one dedicated to energy-related emissions and the other focusing on Forest, Land and Agriculture (FLAG) emissions—our Climate Action Plan is structured to align with the Short-Term Targets recommended by the Science-Based Targets initiative (SBTi). In adherence to SBTi's short-term recommendations, we are actively formulating an emission reduction plan centered on energy efficiency and the adoption of renewable energy practices. The execution of these plans is slated for implementation across our facilities in 2024.

For the energy inventory, encompassing scope 1 and 2 emissions for NKG, our CAP aligns with the SBT Criteria for short-term targets, specifying an absolute reduction goal. All companies under consideration are mandated to achieve a minimum annual reduction of 4.2%, aligning with the 1.5° pathway. As we assume an exponential adaptation of practices among our group companies, we commit to a 3% reduction for scope 1 and 2 (excluding FLAG emissions) for 2024 and 6% reduction for scope 1 and 2 (excluding FLAG emissions) for 2025. We set a combined target meaning that we will add the reductions achieved in scope 1 and 2 every year to assess overall target achievement.

In parallel, the CAP addresses the FLAG Inventory, focusing on scope 1 and 2 emissions for our three NKG farms. The criteria for short-term targets under the FLAG Inventory adhere to the SBTi overall guidance, necessitating that the FLAG target encompasses at least 95% of a company's FLAG-related scope 1 and 2 emissions. The prescribed FLAG pathway for scope 1 and 2 entails a 3.03% Linear Annual Reduction. We commit to a 3.03% reduction for FLAG emissions for scope 1 (scope 2 is not applicable) in 2024 and 2025.

Through the integration of these specific criteria and objectives, our CAP not only reflects a commitment to sustainability but also ensures a targeted and strategic approach to addressing emissions in both the energy and FLAG inventories. Due to the complexity of targeting scope 3 emissions a reduction target is not yet set. In 2024, our focus will be on acquiring primary data pertaining to scope 3 emission categories. This data will serve as a foundation to evaluate the feasibility of committing to specific scope 3 reduction targets.

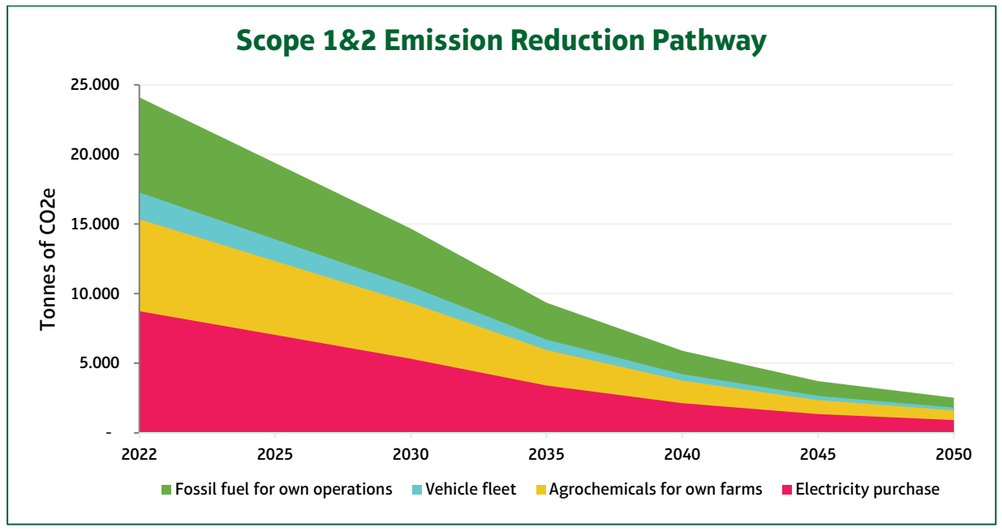
Long term emission reduction targets

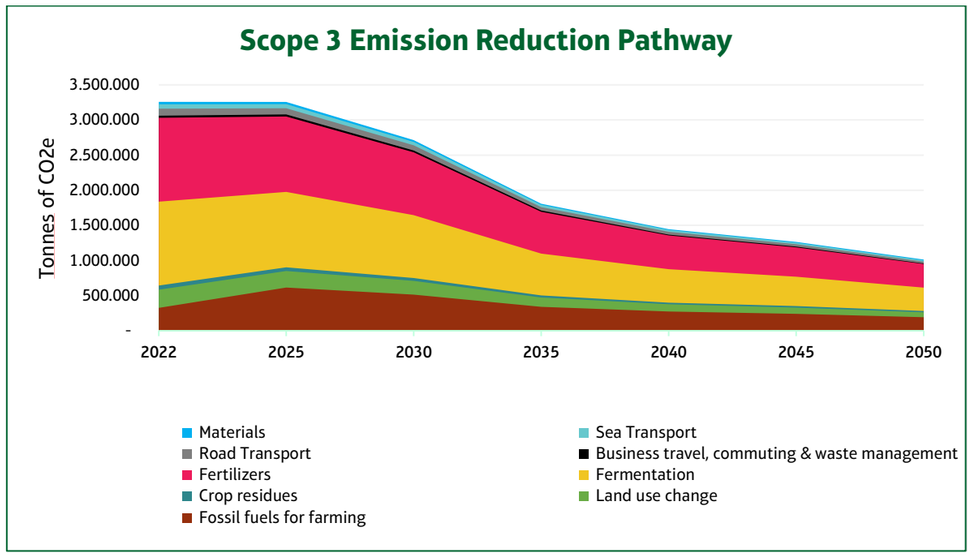
On the other hand, long-term targets are aligned to limit global warming to 1.5°C, which means achieving absolute Scope 1, 2 and 3 greenhouse gas emission reduction targets by 2050, from a predefined base year. In addition, there is a commitment to offset the remaining unavoidable emissions once the science-based long-term target is achieved.

Following the long-term recommendations of the SBTi, NKG would require committing to reduce 90% of its Scope 1 & 2 emissions by 2050 from a 2020 base year.

For the case of FLAG emissions at the 3 NKG farms, it would require committing to reduce 72% of the applicable Scope 1 emissions by 2050 from a 2020 base year.

However, no long-term emission reduction commitment for Scope 1 & 2 has been made yet by NKG.





Considering that NKG Scope 3 is mostly composed of emissions caused by coffee farming related activities, it is necessary to consider that two methodologies are applied to define targets and emission reductions.

For the case of energy related emissions in scope 3, it is recommended to achieve an absolute reduction of 90% emissions by the end of 2050 from a 2020 base year based on the SBT guideline.

Given that 94% of the overall carbon footprint falls into the FLAG pathway, it would also require defining a long-term FLAG emission reduction target.

Based on the FLAG guideline, it is recommended to commit to an absolute reduction of 72% emissions by the end of 2050 from a 2020 base year.

However, no long-term emission reduction commitment for Scope 3 has been made yet by NKG.

The reduction of emissions in scope 3 is directly related to low carbon coffee procurement. Options to reduce the emissions are shifting to innovative or no fermentation practices, precision in fertilizer application or application of different fertilizers, circular economy in waste management, no-deforestation commitments and land-use change, low carbon transportation, as well as the promotion of carbon sinks in and around coffee plantations.

Identification of emission reduction levers and climate-related opportunities

In our pursuit to align with climate science and limit global warming to 1.5°C by 2050, NKG has identified several climate-related opportunities that hold significant promise for our coffee business. We've carefully refined and prioritized these opportunities, considering their potential financial impacts, as well as the necessary timelines and dependencies. For coffee emissions in Scope 3, many practices are already being implemented and explored, the focus is on refining the business case for NKG and farmers, measuring associated reductions and taking efforts to scale.

Renewable energy and energy efficiency

At NKG, we're committed to reducing our impact on the environment at our export sites. We're taking big steps by using renewable energy and energy-saving ideas. In the 17 countries where we process coffee, we've put in place changes and green practices to make our operations eco-friendlier. This includes the installation of solar panels to harness clean, renewable energy, and the adoption of energy-efficient LED lighting. We're also upgrading equipment and incorporating electrification operations to reduce energy consumption and minimize greenhouse gas emissions. These efforts are to be mainstreamed to reach the ambitious reduction targets set by the environmental policy.

Circular Economy

Our commitment to a circular economy is evident in a range of initiatives that aim to minimize waste and maximize resource reuse. This includes the recycling of coffee pulp and wastewater. Collaborative endeavors with coffee farmers explore alternative uses for coffee pulp, like composting, fertilization and biochar.

Sustainable farming practices

Our field force at the NKG export companies are actively empowering farmers through education, training, and enticing incentives, offering premium prices for sustainably produced coffee. Our robust support extends to the promotion of sustainable farming practices such as agroforestry, intercropping, and reduced tillage. These practices not only improve soil health and boost biodiversity but also contribute significantly to carbon sequestration. Particularly, NKG leverages its proprietary farms as testing grounds for sustainability initiatives. A prime illustration of this commitment can be observed at Fazendas Brasileiras, where a dedicated space is employed to trial novel coffee plants aimed at enhancing productivity and introducing innovative agricultural techniques. Meanwhile, in Kaweri, a collaborative endeavor is underway, repurposing effluent from the wet mill to create premium compost for direct application in the coffee fields. Lastly, at Finca la Puebla, there is a focused exploration into harnessing endemic biodiversity to amplify biomass generation in plants, potentially contributing to sustainable forestry practices.

Sustainable financing

At an operational level, we are dedicated to funding energy efficiency and renewable energy projects that align with climate science, aiming to cut emissions at Scope 1 & 2. Additionally, we understand that for addressing farm-related emissions, the interventions need to make business sense for farmers, and producers need to have access to the required resources, such as seedlings, trainings, inputs and financing. With NKG Bloom and the Smallholder Livelihoods Facility, NKG has a tool and experience to fill this gap.

Overall, at NKG and within our export companies, we have accumulated knowledge and experience to drive reductions and adaptation, within the next year the focus is on identifying the most promising solutions, drive replication, and innovate on key reduction drivers to which we do not yet have solutions, especially fermentation emissions.

Climate resilience

NKG's Climate Action Plan sets it apart with its unwavering resilience in the face of the 1.5°C climate challenge. NKG's climate resilience strategy is reflected in its comprehensive approach to addressing climate change. The company has implemented a range of initiatives to reduce its emissions, including energy efficiency improvements, adoption of renewable energy, and collaboration with suppliers to minimize overall greenhouse gas emissions. Its data-driven approach, strong stakeholder engagement, and commitment to SBTs empower NKG to navigate diverse climate scenarios and contribute meaningfully to a low-carbon future.

Case Studies: Internal measures already taken

NKG Green Office Concept

The Green Office Concept is a transformative initiative closely aligned with the NKG Responsible Business Program's objective of "Improving our environmental footprint." Recognizing that approximately 8-11% of emissions can be mitigated through modified behaviors, this concept aims to inspire positive environmental actions among NKG employees. Departing from previous efforts like Green Office Tower Stickers and Memory Games, the refined approach emphasizes the importance of individual and collective behavior shifts.

The Green Office Concept represents a collaborative effort between 5 trainees from NKG Kala and the holding of NKG, injecting fresh perspectives and creativity into the initiative. It involved the creation of comprehensive information materials and a visually cohesive uniform concept, offering employees a tangible identity and fostering a shared commitment to sustainability. At its core, the initiative features strategically placed Information and Fun-Fact Posters across NKG offices, accompanied by an engaging online memory game designed to reinforce key sustainability principles.

The Green Office Concept's commitment to instigating tangible, positive behavior changes, aligning with the broader mission to enhance sustainability practices across NKG operations. This initiative is poised to serve as a global pilot next year during dedicated Awareness days, marking a transformative shift towards a more environmentally conscious organizational culture.

NKG Awareness Day

To promote a deeper understanding of sustainability-related matters, particularly social and environmental indicators tied to NKG's progress reporting, the inaugural face-to-face workshop was conducted this year with East African companies within the group. The workshop aimed to clarify the importance of reporting, providing context on topics like climate change and carbon footprint, highlighting why the group prioritizes reducing its environmental impact. Over two days, sessions engaged over 15 participants, including representatives from various regional companies. An accompanying Awareness Day facilitated practical discussions on key Responsible Business Program themes.

Based on insights gained, plans are in motion to conduct three regional workshops in 2024, specifically focused on sustainability reporting to enhance awareness of social and environmental issues. Additionally, next year's NKG Awareness Day will center on Climate Change and the impact of behavioral changes on NKG employees. This practical workshop seeks proposals and solutions tailored to each company's context, fostering collaboration to reduce the group's environmental footprint and collectively achieve emission reduction targets. Furthermore, the NKG Green Office Concept will be proposed for global rollout during the upcoming initiatives.

Renewable Energy

NKG has initiated impactful renewable energy projects across various sites, demonstrating our unwavering commitment to environmental stewardship. The successful installation of initial solar panel projects has efficiently met the energy needs of CECA's offices in Costa Rica and Becamo in Honduras, highlighting our commitment to generating on-site renewable energy. For ECC, our Mexican subsidiary, a solar project with a capacity of 1.20 MW has actively contributed to our green energy portfolio since late 2023. Similarly, the solar capacities of 0.5 MW and 0.9 MW at the Brazilian companies Fazendas Brasileiras and Stockler will commence emission reduction efforts from 2024 onward, further reinforcing our commitment to reduce reliance on traditional energy sources. Building on these achievements, NKG is gearing up to expand its renewable footprint with the forthcoming rollout of the NG Vietnam solar project in 2024. This strategic expansion reflects our deliberate approach to fostering sustainability across diverse operational landscapes, aligning seamlessly with our overarching goal of realizing a more environmentally conscious and resilient future.

Risk Management

To initiate our Climate Action Plan, we conducted Climate Change Risk Assessments (CCRAs) as an initial step to identify climate-related risks in our primary origins. Following TCFD guidelines, we categorized risks into two main types: physical (acute and chronic) and transition risks.

Concerning acute physical risks, extensive research into historical extreme events in coffee-growing areas was conducted and assessed based on likelihood and potential financial consequences. This analysis revealed that the majority of our operations across various origins are unlikely to be significantly disrupted by acute physical hazards and where they were found to be material, the availability of information was a limiting factor. Consequently, these were not further analyzed for the first iteration of our Climate Action Plan, but will be reviewed and included when data availability and accuracy allow us to perform relevant assessments. To determine the materiality of risks to the company, we considered a blend of risk rating in specific locations, event likelihood in coffee-growing areas, and their connection to our supply chain and operations.

Chronic physical risks were meticulously investigated for each origin, evaluating their impact on yield and labor productivity. Quantification of these impacts was determined through a comprehensive literature review, tailored to each unique scenario. The level of risk from chronic physical hazards was gauged based on their effect on our supply chain.

Transition risks and opportunities, as proposed by TCFD, were reviewed, and contextualized to our business operations. Consequently, risks such as Reporting obligations, Deforestation (Litigation), Lack of technology availability for emission reductions, Increased cost of coffee (raw materials), and Stakeholder concern were selected for further analysis. This examination involved policy reviews, National Determined Contributions (NDCs), government sources, and expert interviews to assess the risks in the context of our business operations and facilities. These insights will lead to the development of new opportunities and aid in understanding our business's resilience in a low-carbon economy.

The purpose of integrating this assessment into our current risk management processes is to consistently review potential climate-related risks and the regulatory landscape. We aim to evaluate how our supply chain and operations might be affected by these climate-related risks, enabling us to monitor, assess, and prepare for their impact on our business. This continuous assessment encompasses all significant risks to our business and will be regularly updated and reviewed. Moreover, the outcomes will inform appropriate mitigation and adaptation strategies.

For the Climate Action Plan (CAP), we streamlined our risk assessments for our primary origins, considering impacts on both our supply chain and operations. These climate-related risks were assessed under two scenarios: Business as Usual (BAU) and Aligned to a 1.5°C target, over a 30-year horizon. Furthermore, we categorized the identified risks based on short-term (3-5 years), medium-term (5-10 years), and long-term (>10 years) timeframes.

	Colombia		Brazil		Vietnam		Honduras		Uganda	
Risks					**Changes in Temperature and Precipitation**					
Impact [1]	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU
	-9%	-13%	-52%	-71%	-49%	-69%	-41%	-58%	-23%	-30%
Description	Temperature variation will cause berry damage such as, ripening, defects and smaller sizes. A shift to higher altitudes will be required for the preservation of Arabica. Due to Colombia's unique topography negative impacts expected at low-altitudes will be offset by the high productivity at high-altitude municipalities. Under BAU a 0,5°C increase is expected by 2050 compared to 2020. If we reach net-zero by 2050 the increase can by reduced to 0,1 by 2050. Precipitation variation will cause decrease of flowering and its productivity. With heavier periods of rain there will be an increase in the damages caused by the coffee leaf rust. Due to temperature increases, low-altitude areas will no longer be suitable for coffee growing.		Temperatures in Brazilian coffee municipalities have been increasing approximately 0,25°C per decade, which has caused reduction in coffee yield. Under BAU a 0,9°C increase is expected by 2050 compared to 2020. If we reach net-zero by 2050 the increase can by reduced to 0,3 by 2050. As well, precipitation has been decreasing during the blooming and ripening periods, which has had the same effect on coffee as temperature. Uncertainty in rainfall patterns is the biggest concern for coffee farms currently. Temperature increases will impact suitability for growing coffee in current areas. Land suitability for coffee growing areas in Brazil has different predictions regarding future land suitability for coffee.		The number of hot days has risen in the past decades. This has been reflected in bean sizes. Seasons will intensify (rainy season gets wetter and dry season gets drier). Rising temperatures plus changes in rainfall patterns will cost Vietnam a big part of its current coffee growing areas and variations in coffee yield. Most impacted coffee growing areas will be in Lam Dong and Dak Nong. Suitability in low-altitude areas (<550m) will decline sharply.		High exposure to droughts, excessive rains and severe flooding. These events will reduce production unless farmers invest in water management. Coffee farmers located in areas below 1000 m will likely have to transition to other crops. Need to adjust canopy cover to avoid fungal diseases.		Increases in hot days and nights will cause problems such as poor filling of cherries and abortion of flowers in low-altitude areas. There are different weather pattern projections across regions, where some will experience increases in rainfall and others devastating droughts. A decreasing trend in rainfall during critical months is projected Climate models have high uncertainty for Uganda Unsuitability of current coffee growing areas due to temperature increases There is limited potential for altitudinal migration	
Likelihood	Likely	Likely	Likely	Likely	Likely	Likely	Likely	Likely	Likely	Likely
Risk	Decrease in yield, up to 7% of the current coffee volume could be lost Reduction in production in the country, migration towards high-altitude areas (forest loss). Up to 30% of low elevation areas will no longer be suitable		Decrease in yield of approximately 19%	Decrease in yield of approximately 30% Reduction of production in the country, given that projected suitable land reduction go up to 25% for overall suitability. Migration towards different areas is not likely, due to limitations by high temperature variability in sub-tropical regions	Decrease in yield of approximately 1%	Decrease in yield of approximately 5,32% Robusta growing areas could be highly impacted by temperature increases, possibly causing a reduction of 50% of the current growing areas	Decrease in yield up to 2%	Decrease in yield of approximately 21% About 45% of the current suitable are will become unsuitable if adaptation measures are not implemented	Decrease in coffee production of approximately 19%	Decrease in coffee production of approximately 50% A loss of 25% of the current suitable land for coffee growing is projected.
Time period	M-L	M-L	M-L	M-L	M-L	M-L	M-L	M-L	M-L	M-L
Financial Implications	Medium	Medium	High	High	Medium	High	Low	Medium	Low	Medium
Methodology	Impact on yield estimated through literature review and experts interviews. Percentages were adapted case by case by using Climate Impact Explorer - NGFS current policies & NGFS net-zero 2050 Reduction in suitable areas was found through literature review. Percentages were adapted taking into consideration each specific case									
Risk mitigation action plan	Reduction. Improvement of processes, systems and strategies to reduce the risk in our supply chain Engage with farmers to develop adaptation measures. Fidelity program where NKG facilitates this measures and, thus the coffee is sold to the group. Convert risks into opportunities									

[1] Impact of Climate Change on Coffee Suitable Areas

	Colombia		Brazil		Vietnam		Honduras		Uganda	
Risk					**Labor Productivity**					
Impact	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU
Description	Labor productivity will be highly affected due to heat stress in the agricultural sector, as most of the workers are exposed to the increasing temperatures for longer periods									
Likelihood	Unlikely	Possible	Unlikely	Possible	Possible	Likely	Unlikely	Likely	Likely	Likely
Risk	If net-zero is reached by 2050, labor productivity due to heat stress will likely remain at the current levels. Which means there will be no loss of productivity	Reduction in labor productivity due to need for breaks in between working hours (loss of working hours) - Reduced capacity of the body to perform physical labor. More rotations of personnel will likely be needed. Reduction in Labor productivity due to heat stress will likely rise to 5% by 2050. This means that around 30.000 jobs in the coffee sector in Colombia could be affected Migration to other sectors	If net-zero is reached by 2050, labor productivity due to heat stress will likely remain at the current levels. Which means there will be no loss of productivity	Under current policies, Brazil could have a approximate 5% reduction of labor productivity per decade. Around 13.000 jobs could be affected	If net-zero is reached by 2050, labor productivity due to heat stress will likely remain at the current levels. Which means there will be no loss of productivity	Under current policies, Vietnam could experience a reduction of labor productivity of 4,3%, which translates in approximately 30.000 jobs affected. A 2% reduction is already associated with temperatures above 25°C Around 15% of the farmers will have to transition to other crops due to climate change impact	If net-zero is reached by 2050, labor productivity due to heat stress will likely remain at the current levels. Which means there will be no loss of productivity	Under current policies, Honduras could have an approximate 5% reduction of labor productivity per decade. Around 6.000 jobs could be affected	Even if net-zero is achieved by 2050, labor productivity may still be affected but to a smaller degree, with around 2% of jobs impacted.	Under current policies, Uganda's agricultural workforce could affect 5,4% of jobs, which translates in approximately 1.755 jobs.
Time period	S-M-L	M-L	M-L	M-L	M-L	M-L	M-L	M-L	M-L	M-L
Financial Implications	-	-	-	-	-	-	-	-	-	-
Methodology	The impact on labor productivity due to heat stress was calculated using the impacts of Climate Impact Explorer in different emission scenarios, as well as through literature review									
Risk mitigation action plan	Reduction. Improvement of processes, systems and strategies to reduce the risk in our supply chain. Improve working conditions in own farms and engage with suppliers for them to recreate the same for their workforce									

	Colombia		Brazil		Vietnam		Honduras		Uganda	
Risk	Pests & Diseases									
Impact	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU
	Low	Low	Medium	High	Low	Medium	Medium	Medium	Medium	Medium
Description	Even though pests such as coffee leaf rust will likely become a higher risk in crops due to temperature increases - higher proliferation, Colombia's coffee plantation are a resistant variety. Also, Cenicafé (coffee research center) is constantly researching and developing new varieties to prepare and prevent damage.		Susceptibility to pest and diseases will increase due to heat stress		Rising temperatures will help the proliferation of the coffee berry borer		Climatic changes will likely cause higher incidences of pests and diseases. The previous coffee leaf rust crisis was linked to rising minimum temperatures. Infestations are expected to be more severe and occur, as well, at higher altitudes. Coffee rust has now been found in resistant varieties.		Increase incidence and damage from various pests & diseases, which can be mitigated with agroforestryPrevious decline in robusta production was attributed to coffee wilt disease	
Likelihood	Unlikely	Probable	Probable	Probable	Unlikely	Probable	Likely	Likely	Likely	Likely
Risk	Reduction of coffee yield		Coffee production can be impacted up to 50%		Reduction of coffee production		Impact of ca. 15% of coffee yield.		Reduction of coffee production	
Time period	S-M-L	S-M-L	S-M-L	S-M-L	S-M-L	S-M-L	S-M-L	S-M-L	S-M-L	S-M-L
Financial Implications	Low		High		Low		High		High	
Methodology	Analysis through literature review was carried out. Conclusions were drawn after experts interviews were carried out									
Risk mitigation action plan	Promote good agricultural practices and facilitate accessibility to the respective technology and pest-resistant varieties.									

	Colombia		Brazil	
Risk	**Reporting Obligations[2]**			
Impact	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU
	Low	Low	Medium	Low
Description	Reporting obligations in Colombia will not be a risk, as SKN (NKG Group Company) is currently part of voluntary disclosure, which means that by the time everything is implemented, there will be no transition risk in either scenario		Likely high requirements to provide Scope 3 information due to National Program for the Reporting of Greenhouse Gas Emissions (PNR-GHG)	Voluntary reporting to Brazil's GHG Protocol Program
Likelihood	Likely	Likely	Likely	Unlikely
Risk	-		Lack of granularity in scope 3 emission sources results in high emission profiles	
Time period	S-M	S-M	S-M	S-M
Financial Implications	-	-	-	-
Methodology	The identification of the transition risk was done through literature review and experts interviews			
Risk mitigation action plan	Pursuit. Converting risks into opportunities. Improve data quality for reporting purposes for the whole group. Human resources needed for this purpose			

[2] In the case of Vietnam, Honduras and Uganda, data availability didn't allow for clear results. It was therefore not possible to determine the risks.

	Colombia		Brazil		Vietnam		Honduras		Uganda	
Risk					**Litigation – Deforestation**					
Impact	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU
	Medium	High	Medium	Medium	Low	Medium	High	High	High	High
Description	Deforestation is a risk that the coffee sector may face, as one of the alternatives to maintain coffee suitable areas is to migrate towards high-altitude areas. This translates into land use change and/or invasion/degradation of primary forest that may or may not be located in protected areas. As to more specific risks, with the current EUDR, there is the risk of non-compliance and, hence, not being able to place the coffee in the EU market and upcoming markets with similar regulations. Colombia is at a late forest transition stage, which means low forest cover, but deforestation is slowing down.		According to Brazil's nationally determined contributions, there will be higher enforcement of the Forest Code, in order to maintain current preservation areas and prevent land use change. Brazil pledges zero illegal deforestation by 2030. The country is in a late forest transition stage, which means that deforestation rate is slowing down. Nonetheless, approximately 1/3 of deforestation is embodied in crops, which makes the risk non-negligible.		Vietnam is at a post-transition stage, which means that through reforestation the forest cover is already increasing. Historically, there has been deforestation linked to coffee production, approximately 20% of tree cover loss in coffee growing areas.		Honduras has historically had coffee driven deforestation, approximately 17%. It has been classified in an early forest transition stage, which means that deforestation rate is still increasing.		The current deforestation rate poses a major threat to the long-term forests' status. Forests in Uganda are poorly protected, and agriculture is one of the key drivers of deforestation. 16% has been attributed in the past to coffee. Lack of land tenure due to weak property rights. Low future risk as, future expansion areas have low forest cover. Currently at a late transition forest stage (slowing rate of deforestation).	
Likelihood	Likely	Likely	Likely	Likely	Unlikely	Probable	Likely	Likely	Probable	Likely
Risk	Both commercial and deforestation risk. Most likely impacts are ecosystem degradation and loss of habitats that result in loss of genetic diversity of one of the biodiversity hotspots in the world. Loss of share in EU markets/Other markets due to lack of traceability.		Both commercial and deforestation risk. Most likely impacts are ecosystem degradation and loss of habitats that result in loss of genetic diversity of one of the biodiversity hotspots in the world. Loss of share in EU markets/Other markets due to lack of traceability.		Mainly commercial risk. High risk as Vietnam has the second biggest coffee market and around 50% goes to the EU Market.		Both commercial and deforestation risk. Most likely impacts are ecosystem degradation and loss of habitats that result in loss of genetic diversity. Incapacity of preserving conservation areas. Loss of share in EU markets/Other markets due to lack of traceability.		Both commercial and deforestation risk. Most likely impacts are ecosystem degradation and loss of habitats that result in loss of genetic diversity. Incapacity of preserving conservation areas. Loss of share in EU markets/Other markets due to lack of traceability.	
Time period	M-L	S-M	M-L	S-M	M-L	S-M	M-L	S-M	M-L	S-M
Financial Implications	High		High		High		High		High	
Methodology	As a first step, literature review and experts interviews were used to recognize crop migration as a risk EUDR related risk: analysis of commodity-related deforestation and forest transition stage through literature review									
Risk mitigation action plan	Reduction. Improvement of processes, systems and strategies to reduce the risk in our supply chain									

	Colombia		Brazil		Vietnam		Honduras		Uganda	
Risk	**Lack of technology availability for emission reduction**									
Impacts	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU	Scenario 1: Aligned to 1,5C	Scenario 2: BAU
	Low		High		High		Medium		Medium	
Description	In Scope 1 emissions, our highest sources are related to transportation. Due to the geography of the country and the bad road infrastructure, it is not possible to change the fossil fuel used for transportation. Possible emission reductions are reducing agrochemical input and reducing the emissions of the whole washed coffee process. For Scope 2 emissions, as Colombia's electricity grid is from clean sources. The possibility for emission reduction is through improvement of energy efficiency		In Brazil we have both a farm and an exporting company. For our Scope 1 emissions, in the case of our farm, our biggest sources of emissions are agrochemical input and fossil fuel use for operations. Both categories allow us to explore emission reduction options. For the case of Stockler, our exporting company, emission reduction efforts can be focused, as well, on reducing agrochemical input and changing vehicle fleet for transportation, where possible.		In Vietnam our most important source of emissions is located in Scope 2 Currently, there is no access to renewable energy in the country on the grid. Hence, the emission reduction pathway would be to promote renewable energy projects within our own facility, as well as promoting energy efficiency practices to reduce the used amount		In Honduras, we may achieve emission reduction in our Scope 2, by promoting renewable energy projects in our own facilities		In Uganda our Scope 1 emissions are concentrated in the use of fossil fuels for operations. Emission reductions may be achieved through different fuel choices	
Likelihood	Probable	Unlikely	Probable	Probable	Probable	Unlikely	Likely	Likely	Likely	Probable
Risk	Low		Low		Medium		Low		Low	
Time period	M-L		M-L		M-L		M-L		M-L	
Financial Implications	Medium		Medium		Medium		Medium		Low	
Methodology	Through our Corporate Carbon Footprint, we were able to identify our main emission sources and, afterwards, understand the mitigation pathways.									
Risk mitigation action plan	Develop business plans that allow the group to reach internal emission reduction targets									

Metrics & Targets

Metrics and targets within a CAP refer to the specific indicators and goals used to measure progress and success in reducing greenhouse gas emissions and addressing climate change. For this category, it is necessary to disclose the metrics and targets that are going to be used to assess and manage the climate-related risks of NKG.

The primary emphasis on establishing emission reduction targets is rooted in the understanding that nearly every human activity inherently contributes to emissions. Consequently, when emission reduction targets are set in alignment with climate science, a process of back-casting can be employed to ascertain the annual goals at the group level. This approach also guides the selection of the most impactful interventions in various operational aspects, including the value chain, energy efficiency, renewable energy, circular economy, and nature-based solutions.

Metrics and targets to assess climate-related risks and opportunities

Science-based targets (SBT) provide companies with a clearly defined roadmap to reduce their greenhouse gas (GHG) emissions, ultimately playing a crucial role in mitigating the most severe consequences of climate change and ensuring the sustainability of their business growth. These targets are classified as 'science-based' when they align with the latest climate science recommendations required to meet the goals of the Paris Agreement, particularly the objective of limiting global warming to no more than 1.5°C above pre-industrial levels.

GHG emissions stem from the combustion of fossil fuels in various stages of the value chain. For instance, the use of fossil fuels is directly evident in our operations, from coffee drying processes to operating equipment such as forklifts. Similarly, fossil fuels like coal are necessary for electricity generation, which is then supplied to the power grid, ultimately powering electrical appliances within our facilities. Similarly, there is a dependence on fossil fuels to operate machinery and equipment during the extraction of materials, manufacture of products such as agrochemicals, textile, or plastic fibers, as well as operation of

transportation service fleets. Finally, there is a real dependence on the use of fossil fuels to generate electricity for the operation of coffee machines, as well as operate waste processing equipment once residual waste has arrived at the different waste management facilities.

a. **Scope 1 and Scope 2:** Science-based emission reduction targets must encompass company-wide scope 1 and scope 2 emissions, following the GHG Protocol Corporate Standard. The minimum requirement is an absolute reduction per year of 4.2% for scope 1 and 2 respectively compared to base year 2022.

   - Based on the SBTi guidance and the 2022 carbon footprint baseline of NKG, a minimum absolute yearly reduction of 4.2% for both scope 1 and 2 should be achieved. Based on the CAP agreement, we commit to a 9% reduction for both Scope 1 and 2 until 2025. As we assume an exponential adaptation of practices among our group companies, we commit to a 3% reduction for scope 1 and 2 (excluding FLAG) for 2024 and 6% reduction for scope 1 and 2 (excluding FLAG) for 2025. We set a combined target meaning that we will add the reductions achieved in scope 1 and 2 every year to assess overall target achievement in comparison to our 2022 baseline.
   - In parallel, the CAP addresses the FLAG Inventory, focusing on scope 1 emissions for our three NKG farms (scope 2 is not applicable). The criteria for short-term targets under the FLAG Inventory adhere to the SBTi overall guidance, necessitating that the FLAG target encompasses at least 95% of a company's FLAG-related scope 1 and 2 emissions. The prescribed FLAG pathway for scope 1 & 2 entails a 3.03% Linear Annual Reduction. We commit to a 3.03% reduction for FLAG emissions for scope 1 (scope 2 is not applicable) in 2024 and 2025.
   - For a more specific overview of both energy-related and FLAG emissions target setting, please refer to *Appendix 1*.

b. **Scope 3**: If relevant scope 3 emissions account for 40% or more of total scope 1, 2, and 3 emissions, which is the case for NKG, they must be integrated into near-term SBT.

   - Due to the complexity of targeting scope 3 emissions a reduction target is not yet set. Within 2024 the options for achieving this target will be explored, to come to conclude on target setting for 2025.

For the time being, NKG does not incorporate climate-related performance metrics into its remuneration policies, nor does it provide specific climate-related opportunity metrics, such as revenue from products and services designed for a low-carbon economy.

a. Energy related emissions in tonnes of CO2e

	Base year (2022)	Target year (2030)	Total abatement	Related risks
Scope 1	7,016	4,069	42%	Operational challenges in transitioning to cleaner technologies, uncertainty in securing a stable supply of fossil fuels from specific suppliers due to geopolitical instability, increased compliance costs from emission reduction regulations, and financial strain from upfront investments in greener technologies and energy sources, which could impact short-term profitability.
Scope 2	7,881	4,571	42%	Reducing electricity consumption, as well as investing in decentralized renewable energy supplies in more than 26 countries means

				exposure to energy market fluctuations, the uncertainty of energy prices, legal regulations, and supply stability.

Table 1: Overview of science-based targets for baseline 2022 using the SBTi Target Setting Tool V2.2.

b. FLAG related emissions in tonnes of CO2e

	Base year (2022)	Target year (2030)	Total abatement	Related risks
Scope 1	9,497	6,619	30.3%	Reducing emissions at NKG coffee farms faces challenges linked to Land Use Change during renovation, and fertilizer application. A shift towards exploring precision agriculture and novel soil nutrient improvement methods is needed. Achieving a delicate balance between productivity and environmental impact could be crucial.

Table 2: Overview of FLAG target for baseline 2022 using the FLAG Target Setting Tool V1.5.

Environmental metrics and targets to assess and manage relevant climate-related risks and opportunities

It becomes evident that a direct interplay exists between emissions generation and the utilization of natural resources, energy consumption, water resources, and waste generation. Recognizing this interconnection underscores the importance of establishing specific targets that extend beyond GHG emission reduction. Therefore, enhancing the selection of natural resources, optimizing, and streamlining operations, reducing the consumption of natural, fossil, and water resources, and minimizing waste generation are not only key measures for significantly curtailing emissions but also for achieving broader sustainability goals.

To meet our emission reduction targets, we have developed a group-level environmental policy. The need for this policy has been recognized to standardize work practices and align our efforts towards common objectives across the organization. We are in the process of setting environmental targets for different categories in addition to carbon reduction targets aimed at enhancing the overall performance of NKG operations. These additional targets will focus on effective water resource management, waste reduction and raw material sourcing. This holistic set of targets will serve as a comprehensive framework, guiding our actions and endeavors to fulfill our sustainability goals effectively. The aim is to reach the specified reduction targets by the end of 2025. This timeline was established with the understanding that the pace of change in our emission reduction efforts might start off slowly and accelerate later on. This means that by 2025, we will reassess our targets.

Energy Consumption

a. **Fossil Fuel Dependency**: Considering that more than 90% of emissions in scope 1 are due to the use of fossil fuels, the reduction of fossil fuel dependence due to the search for renewable alternatives, as well as energy efficiency will allow achieving objective 1.a. In this sense, an absolute yearly reduction of total fossil fuel consumption by 4.2% is needed from a baseline of 76,559 MWh during 2022.

    i. For the environmental policy:

        1. **Fossil fuel reduction**: Considering the proposed timeline of 2025, it is suggested an absolute reduction of fossil fuel consumption of 9%. This value comes from the

addition of the two-year period minimum consumption reduction, which is an absolute reduction of 8.4% from a baseline of 76,542 MWh during 2022.

2. **Biofuel increase consumption**: Since fossil fuel consumption needs to be reduced, a first strategy to decrease emission generation comes from the usage of biofuels and byproducts such as wood and coffee husks. Currently, only 0.03% of the energy consumed by the group comes from this type of source. Following the same narrative proposed by the SBTi, where a 4.2% increase in renewable sources would be needed, it is suggested that a conservative way to consider the context of the different exporting companies could be to also promote an overall absolute increase of biofuel usage of 9% by the end of 2025 from a baseline of 16.73 MWh during 2022.

b. **Renewable Energy Consumption**: To address the need for reducing Scope 2 emissions stemming from conventional electricity consumption, a fundamental shift to renewable electricity providers and self-generated renewable energy is imperative. This transition should ensure that, each year, we achieve an absolute 4.2% increase in additional renewable energy supply at the group level, necessitating a corresponding 4.2% decrease in conventional electricity supply. This balanced approach combines augmented renewable electricity procurement from service providers with in-house renewable electricity generation, facilitating emission reduction and fostering our commitment to sustainability and environmental responsibility.

   i. For the environmental policy:

      1. **Reduction in conventional electricity purchase**: Considering the relationship between decrease of conventional electricity consumption and scope 2 emission reduction and following the minimum suggested requirement of 4.2% yearly reduction of this emission source, it is suggested to achieve a 9% absolute reduction by the end of 2025. This value comes from the addition of the two-year period minimum consumption reduction, which is an absolute reduction of 8.4% from a baseline of 18,977 MWh during 2022.

      2. **Increase in renewable electricity purchase**: Since reduction in conventional electricity consumption translates to renewable electricity procurement, it is suggested to achieve a 9% absolute increase by the end of 2025 based on a baseline of 4,130 MWh during 2022. This intervention serves as buffer for the case where more electricity requirements are needed and will allow to have a 21% share of renewable electricity at group level from third party suppliers if possible and options available.

      3. **Increase in renewable electricity generation**: To enhance the efficiency of our energy utilization, it is recommended to attain 5% on-site generation of renewable electricity by the end of 2025. Currently, our group-level electricity generation from renewable sources stands at 0.2%, equivalent to 43.5 MWh during 2022. This intervention serves as buffer for the case where more electricity requirements are needed, as well as an option for the companies where renewable electricity suppliers may be scarce or unavailable to achieve emission reduction target in scope 2.

Raw Material Sourcing

a. **Non-renewable material consumption:** The goal of reducing non-renewable material consumption aims to decrease the use of materials for daily operations such as procurement of plastics and polypropylene bags, office paper, and other non-renewable resources that have a significant environmental footprint. Consequently, scope 3 emissions can be reduced, and the circularity index of the group can also be improved by the end of 2025 based on the 2022 baseline.

   i. **For the environmental policy:**

      1. **Reduction in use of polypropylene bags:** Implementing a 5% reduction in the use of polypropylene bags by the end of 2025, derived from the 2022 baseline of 561 tons, will help decrease the consumption of non-renewable plastics. This can be achieved by promoting the use of reusable bags, reducing packaging waste, and exploring alternative materials for bag production.

2. **Reduction of plastic layer within jute bags:** By reducing the plastic component due to the procurement of jute bags, it minimizes the consumption of non-renewable plastics. We are aiming for a 5% plastic consumption reduction by the end of 2025 based on the 2022 baseline of Jutte bag procurement of 2,090 tons. This subgoal encourages the development and use of more sustainable packaging options. A deeper overview of the quantity of plastic liners within the jute bag procurement will be achieved during the 2024 data collection at group level.
3. **Reduction of office paper:** Reducing office paper consumption involves measures like digital documentation, double-sided printing, and encouraging electronic communication. We are aiming for a 5% reduction by the end of 2025 based on the 2022 baseline of 957 tons of office paper, which will lessen the use of non-renewable resources, such as trees and energy used in paper production.
4. **Reduction in agrochemicals consumption:** The objective aims to achieve a 5% reduction in the use of synthetic agrochemicals by the end of 2025 based on the 2022 baseline of 12,115 tons. This subgoal can be realized through the adoption of organic farming practices and the utilization of low-carbon fertilizers. This approach not only safeguards non-renewable resources but also fosters the principles of sustainable agriculture.

b. **Renewable material consumption:** The goal of increasing renewable material consumption is aimed at 5% by the end of 2025 based on the 2022 baseline. This is centered on using materials derived from renewable and recyclable sources in a sustainable manner.

i. **For the environmental policy:**

1. **Increase of application of byproducts:** Harnessing the application of harvest byproducts or milling activities 5% by the end of 2025 based on the 2022 baseline of 33.6 tons of decomposed pulp, presents an environmentally conscious substitute for artificial fertilizers and agrochemicals within the farms and exporting companies, effectively contributing to emissions reduction within the scope 3.
2. **Recycling traceability of wood pallets:** Ensuring that wood pallets are sourced from sustainably managed forests and have a high recycling traceability rate promotes the use of renewable resources in a responsible manner. Currently, there is a gap among companies regarding the procurement of pallets, therefore, focusing on procurement of more sustainable sources by 5% can reduce scope 3 emissions by the end of 2025 based on the 2022 baseline of 97 tons of wood pellets.

Waste

c. **Waste minimization:** The primary objective of waste minimization is to reduce the overall generation of waste, encompassing various categories such as organic, mixed, inorganic, and hazardous waste by the end of 2025 based on the 2022 baseline. Waste reduction efforts have the potential to significantly reduce emissions within scope 3, given that these efforts are controlled activities that can be carried out by all group companies, regardless of their size or profile.

i. For environmental policy:

1. **Reduction in organic waste generation:** This goal seeks to decrease the generation of organic waste, which often ends up in landfills or waste-to-energy facilities by 5% at the end of 2025 based on the 2022 baseline of 42,520 tons of organic waste. Achieving this goal involves further promotion of practices like awareness for food waste reduction, and segregation of waste for composting, which can be further used as soil nutrient.
2. **Reduction in mixed waste generation:** Reducing mixed waste by 5%, which combines different types of waste materials, can be accomplished by enhancing waste sorting and recycling programs. The reduction of waste sent to landfilling contributes to a reduction in scope 3 emissions by the end of 2025 based on the 2022 baseline of 2,163.3 tons for mixed waste generation.
3. **Reduction in inorganic waste generation:** This goal aims to achieve a 5% reduction by the end of 2025 based on the

baseline of 6,349 tons of inorganic waste generated during 2022. There should be a strong emphasis on reusing and recycling materials like metals, glass, and plastics. This goal promotes a circular economy by reducing the need for new raw materials, while diminishing scope 3 emissions.

4. **Reduction in Hazardous Waste Generation:** Hazardous waste poses environmental and health risks. This target aims to reduce the generation of hazardous waste by 5% from farms and exporting companies within the group by the end of 2025. This target is based on the 2022 baseline, where the recorded generation of hazardous waste stood at 886 tons. Particularly, this improvement could be achieved by implementing segregation processes, identification of material alternatives to prevent hazardous waste generation, and enhancing waste management practices. The reduction of waste sent to hazardous waste treatment facilities, as well as landfilling contributes to a reduction in scope 3 emissions.

d. **Waste management:** The primary objective of waste management is to handle segregated waste more efficiently and sustainably, promoting resource recovery and reducing carbon emissions.

   i. **For environmental policy:**

      1. **Composting of organic sorted waste:** By enhancing organic sorting from mixed waste streams in just 5% by the end of 2025, this target promotes the diversion of organic materials to composting facilities. This contributes to reducing landfill waste and allows for valuable organic matter to be repurposed as compost. During 2022, about 2,205 tons of waste were sent to landfills, which potentially could still be properly segregated at the source for proper waste management.
      2. **Increase in recycling rate from inorganic sorting:** Focusing on inorganic waste sorting from mixed waste streams facilitates greater recycling. By extracting recyclable materials like metals, plastics, and paper from mixed waste, more resources can be diverted from landfills and reprocessed. Therefore, the subgoal aims to increase by 5% the current recycling rate at group level by the end of 2025 based on the 2022 baseline of 6,373 tons of recycled waste.
      3. **Reduction in waste sent to energy revalorization:** This target aims to minimize waste-to-energy processes by 10% based on the 2022 baseline of 399 tons of revalorized waste by the end of 2025. This is often associated with non-recovery of valuable materials, as well as further emission generation. Proper waste segregation is viable in European companies, therefore promoting the success of other subgoals, as well as reducer scope 3 emissions.
      4. **Waste landfill diversion:** Enhancing waste diversion away from landfills and toward recycling, composting, and other sustainable disposal methods reduces the environmental burden of landfills and conserves valuable land resources. The objective to achieve a 5% waste landfill diversion by the end of 2025 based on the 2022 baseline of 2,205 tons of landfilled waste to improve circularity and emission reductions in scope 3.
      5. **Hazardous waste avoidance:** This target encourages waste avoidance and waste reduction practices that mitigate the need for specialized, resource-intensive waste treatments. It is intended to achieve a 5% waste avoidance by the end of 2025 based on the 2022 baseline of 886 tons of generated hazardous waste. Avoiding hazardous waste generation is a proactive approach to minimizing waste treatment that contributes to further emission generations.

Water

a. **Reducing overall water usage:** The goal focusing on the reduction of our overall water footprint, and particularly blue water, aims to diminish the overall withdrawal and consumption of freshwater resources. This objective is critical for addressing water scarcity issues and ensuring the availability of clean drinking water for communities and ecosystems. While this category does not fall directly under the CAP, there is currently some interest by financial institutions in

improving working conditions regarding water use, consumption, and treatment. Therefore, working with goals to standardize processes in the different companies of the group may be a preventive activity for future requests by third parties.

i. **For the environmental policy:**

1. **Reduction in water withdrawal:** This goal targets a 5% reduction in the total amount of water withdrawn from both surface water and groundwater sources by 2025, based on 2022 baseline. This goal is divided in two sub-goals:

a. **Reduction in surface water withdrawal**: This sub-goal focuses on reducing by 2.5% the amount of water extracted from surface water bodies such as rivers, lakes, and reservoirs normally used by farms and exporting companies of the group by the end of 2025 based on 2022 baseline of 49.46 million liters of water. Achieving this reduction could involve implementing more efficient water intake systems, adopting responsible water management practices, and investing in technologies that monitor water withdrawal, and reduce water losses during extraction.

b. **Reduction in groundwater withdrawal:** This sub-goal targets the reduction of water extracted from groundwater sources by 2.5% at the end of 2025 based on 2022 baseline of 143.69 million liters of water. Over-pumping of groundwater can lead to land subsidence and depletion of aquifers. To meet this sub-goal, efforts may include implementing groundwater monitoring and management systems at both farms and exporting companies, promoting the use of alternative water sources where feasible, developing closed systems within facilities, as well as looking for water treatment procedures to keep reusing process water.

2. **Reduction in water consumption:** This goal aims to decrease the overall consumption of water at all NKG facilities by 5% at the end of 2025 based on 2022 baseline of 29.3 million liters of water, which includes both potable water and non-potable water used for various purposes. This may involve the installation of water-saving fixtures, rainwater harvesting systems, collection, and reuse of grey water streams, conducting water audits to identify and address inefficiencies, and implementing water conservation awareness campaigns. Previous interventions have already been identified among different NKG companies; therefore, the goal will enable them to homogenize operation conditions at a global scale.

3. **Reduction in water discharge:** This goal focuses on reducing the amount of water that is discharged by 5% at the end of 2025 based on a baseline of 163.87 million liters of wastewater during 2022, typically as wastewater or effluent, into the environment, which is normally not properly managed. The rationale behind this goal is to promote responsible water management, environmental protection, and resource conservation via the use of closed water loops at milling facilities, reusing water effluents for irrigation purposes, and inefficiencies in wet milling processes.

4. **Increase in water treatment:** This goal is centered on enhancing the treatment of water effluents by 5% at the end of 2025 based on a baseline of 10.16 million liters of treated water during 2022, particularly wastewater from wet mills from both farming and exporting companies, where applicable. Focusing on the identification of interventions will allow to achieve the overall goal of water consumption reduction.

While emissions and energy reduction targets are aligned with SBTi and the digital toolkit, the reality is that for targets for improving material use and consumption, water and waste generation, there is no methodology yet as such to show the way according to climate science. In the case of these objectives, conservative targets have been established as part of incremental sustainable change. In an ideal world, the attainment of peak operational efficiency and environmental sustainability across all businesses would occur effortlessly, akin to a

simple gesture. This would lead to the minimization of carbon footprints, ultimately culminating in a global reliance on clean energy sources. Nevertheless, within the confines of our imperfect reality, the pursuit of a more sustainable and efficient business landscape necessitates a measured and incremental approach.

Appendix

1: Detailed overview of Metric and Targets for 2024 and 2025.

Considering that there are 2 inventories, one for energy-related emissions and the other for FLAG emissions, the following objectives are proposed for the CAP according to SBT's suggestions.

- For the energy inventory, covering scope 1&2 for NKG.

SBT Criteria for short term target	Absolute Reduction: all companies (apart from FLAG, Power, and Maritime who must follow sector guidance) reduce emissions at a minimum of 4.2% annually for 1.5° pathway			
Energy Inventory	2022 Baseline (tCO2e)	Target 2024 (3% absolute reduction based on 2022 baseline in tCO2e)	Target 2025 (6% absolute reduction based on 2022 baseline in tCO2e)	Total absolute reduction by the end of 2025 (tCO2e)
Scope 1	7.016,73	210,50	421,00	631,50
Scope 2	7.881,16	236,43	472,87	709,30
C20-Combined scope targets	Targets that combine scopes (e.g., 1+2) are permitted. When submitting combined targets, the scope 1+2 portion must be in line with at least a 1.5°C			
Total S1 & S2	14.897,89	**446,93**	**893,87**	**1.340,8**

- For the FLAG Inventory covering scope 1 within our 3 NKG farms:

FLAG Criteria for short term target	As per SBTi overall guidance, the FLAG target must cover at least 95% of a company's FLAG related scope 1 and 2 emissions. FLAG pathway for Scope 1 & 2 is 3.03% Linnear Annual Reduction.			
FLAG Inventory	2022 Baseline (tCO2e)	Target 2024 (3.03% absolute reduction based on 2022 baseline in tCO2e)	Target 2025 (3.03% absolute reduction based on 2022 baseline in tCO2e)	Total absolute reduction by the end of 2025 (tCO2e)
Scope 1	9.496,79	287,75	287,75	575,51
Scope 2	NA	NA	NA	NA
Total S1 & S2	9.496,79	**287,75**	**287,75**	**575,51**