Neumann Kaffee Gruppe





EDITORIAL



DEAR VALUED STAKEHOLDERS,

Since our last Sustainability Report, our efforts at NKG have increasingly been shaped by new regulations such as the European Union Deforestation Regulation (EUDR), the Corporate Sustainability Reporting Directive (CSRD), and the Corporate Sustainability Due Diligence Directive (CS3D). Accordingly, the priorities within our Responsible Business Program have been shifted to align with these changes. As a coffee-trading company, our primary focus remains ensuring that our operations are resilient while upholding our historic commitment to the producers we do business with. Our vision is to foster a sustainable coffee supply chain where all stakeholders can thrive.

baseline for emission reductions. Based on this work, we have also developed NKG's very first Climate Action Plan.

Our commitment to sustainable supply chains is central to this year's Sustainability Report, which provides a detailed account of our efforts and achievements in 2023, demonstrating how we are putting our sustainability strategy into action. With over 300 colleagues dedicated to sustainability worldwide, we are confident in our ability to tackle future challenges and drive meaningful change in our supply chains. We view this report as an opportunity to share our progress, contribute to the ongoing discourse in the coffee sector, and cordially invite you to join us on this journey.

WITH OVER 300 COLLEAGUES DEDICATED TO SUSTAINABILITY WORLDWIDE, WE ARE CONFIDENT IN **OUR ABILITY TO TACKLE FUTURE CHALLENGES AND** DRIVE MEANINGFUL CHANGE IN OUR SUPPLY CHAINS.

David M. Neumann and Ruben Scholz

A key milestone in this journey is the development of a unified system for EUDR and Business Partner Due Diligence, underpinned by our recent partnership with osapiens. This collaboration is aimed at strengthening NKG's position as the leading green coffee service provider, enhancing efficiency and supporting value creation across our entire group. Our proprietary supply chain programs, NKG Verified and NKG Bloom, already exceed EUDR standards and serve as blueprints for compliance. We are also proud that NKG Verified has seen substantial growth, now encompassing more than 30,000 farmers in NKG Verified supply chains. This expansion underscores our commitment to responsible sourcing along the green coffee supply chain.

While our previous Sustainability Report laid the groundwork for our ongoing environmental efforts, we have now calculated our Corporate Carbon Footprint, including Scope 1, 2, and 3 emissions, for the third time and defined our

Thank you for your continued support and dedication.

Sincerely, For the Board of Management



David M. Neumann Group CEO



Ruben Scholz



As a family-owned business headquartered in Hamburg, Germany, NKG has been a leading force in the global green coffee industry for over three decades now. With a presence in 28 countries and a network of 60 companies, we operate across the entire coffee value chain, from farming, export and milling to import and specialized services, ensuring a comprehensive holistic approach to the green coffee business. Our diverse network of companies and collaborative initiatives allows us to meet the needs of both large-scale roasters and specialty buyers while contributing to a more sustainable coffee industry. In 2023, 29.5 % of our coffee sales volume was certified, reflecting our ongoing efforts to responsible sourcing.

Building on the milestones highlighted in our previous report, we are proud to present NKG's latest sustainability achievements that underscore our dedication to progress and innovation:

SPOTLIGHTS

For the first time in NKG history, we implemented a group-wide **Human Ressource** System called WORKDAY



30,000 farmers in NKG Verified **Supply Chains**

As part of our Supply Chain Integrity Program, we published our **NEW SUPPLIER CODE OF CONDUCT** and opened our well-established integrity reporting platform to external stakeholders

colleagues in the **Farmer Service Units,** working with coffee farmers

10 Mio USD

disbursed to smallholder farmers via the Smallholder Livelihoods Facility under NKG Bloom

Enhancing our ongoing environmental commitment, we developed the FIRST NKG CLIMATE ACTION PLAN in 2023

RESPONSIBLE **BUSINESS PROGRAM**

At NKG, our commitment to sustainability and responsible conduct is rooted in the understanding that coffee connects us to people, communities, and ecosystems worldwide. We recognize that the health and well-being of all of our stakeholders are essential, not only for their prosperity but also for our company's long-term success.

Therefore, we strive to ensure that everyone involved in bringing coffee from farm to cup can achieve a sustainable livelihood while preserving the environment we all rely on.

Guided by this responsibility, our core values and upcoming industry developments, we launched the NKG Responsible Business Program (RBP) in 2020. The RBP defines four focus areas and nine strategic objectives for our work, building a robust framework for our group's sustainability efforts.

All objectives of the RBP are fully supported by our Board of Management and the operative management of all NKG companies. While the program is led and coordinated by Neumann Gruppe GmbH in Hamburg, its objectives are brought to life through close collaboration with our local teams around the world. These teams, representing diverse backgrounds and expertise, passionately implement the RBP within their respective national contexts and organizational structures. Their work is based on and driven by continuous innovation, industry partnerships, as well as transparent communication.

By digitizing our operations, piloting new technologies, fostering industry collaborations, and ensuring transparent communication, we continuously enhance traceability and refine our group's sustainability approach.



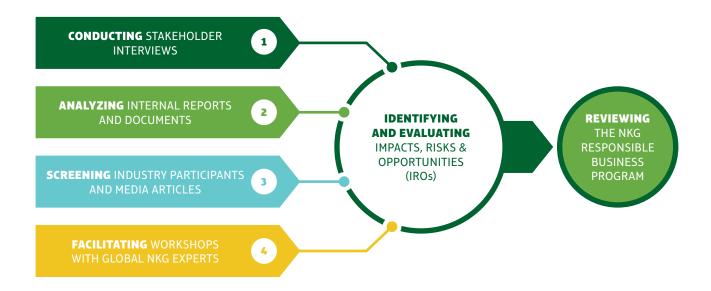
DOUBLE MATERIALITY ASSESSMENT

As our business environment is constantly changing, the RBP is reviewed on a regular basis to ensure that it matches our long-term objectives and the needs of our stakeholders. To align with the requirements of the Corporate Sustainability Reporting Directive (CSRD), we are currently conducting a Double Materiality Assessment (DMA) to identify the most material sustainability topics for our sustainability strategy and reporting. This process is supported by an external consultancy and involves a comprehensive analysis of our impacts, risks, and opportunities (IROs).

For this purpose, we are engaging with our most important external stakeholders through interviews, analyzing internal reports, screening media articles, and benchmarking against competitors and other industry participants. Additionally, we are involving our NKG sustainability experts worldwide in workshops and discussions to evaluate the IROs. Utilizing the assessment criteria of the European Sustainability Reporting Standards (ESRS), we systematically evaluate each IRO to assess its impact and financial materiality. Our Board of Management is closely involved in the process and an internal steering committee of NKG managers monitors the progress und results. In 2026, we will publish our first sustainability report that fully complies with the CSRD and presents the revised version of our RBP, featuring the results of the DMA.

The present report refers to the reporting period January to December 2023 unless otherwise stated. The report content has not been subject to an external audit

OUR DOUBLE MATERIALITY ASSESSMENT PROCESS:



ECOVADIS



We are pleased to announce that NKG was awarded the EcoVadis silver medal in 2023. EcoVadis is a globally recognized sustainability assessment platform that provides ratings based on the evaluation of environmental, social, and ethical performance. Earning the silver rating places us among the top 25 % of companies committed to sustainable business practices. This recognition is a testament to our dedication to ensuring that we have a positive impact on the planet and the communities in which we operate.

Although achieving the silver rating is a momentous accomplishment, we view it as a steppingstone on which we want to build in the future. Our sustainability journey continues, and we remain dedicated to pushing boundaries, setting higher standards, and contributing positively to the global sustainability landscape.

INDUSTRY PARTNERSHIPS

Through our Responsible Business Program, we want to contribute to a more sustainable future in the coffee the joint commitment of different stakeholders. NKG believes in the power of collaboration. We are a proud founding member of <u>International Coffee Partners</u> and <u>coffee&climate</u>. Moreover, we actively engage in go far beyond our own supply chain. In 2023, we became a member of the ILO Child Labour Platform (CLP),

coffee & climate

















NKG Corresponding Goals: 3, 4, 5, 6, 7, 9











Motivated by our vision of a fair and sustainable coffee industry, we at NKG are proud to contribute to the United Nations (UN) Sustainable Development Goals (SDGs) through our Responsible Business Program:





1 SUPPORT A LEARNING CULTURE

> 2 **INCREASE DIVERSITY**

PROMOTE RESPONSIBLE WORKPLACE PRACTICES



SUPPORT A LEARNING CULTURE

New challenges are ever present in today's coffee world, with success hinging significantly on our capacity to evolve and grow. A key element of our Responsible Business Program is to promote ongoing learning and capacity building for our employees. Improving digital knowledge, communication skills and project-management capabilities are only a few examples of the training and development opportunities we offer in our online learning portfolio for employees. Additionally, we consider regular high-quality training on our NKG Code of Conduct a vital aspect to uphold and underline our values, enabling everyone at NKG to consistently make well-informed choices and drive continuous positive transformations.

NKG LEARNING

AND PERSONAL **GROWTH TRAININGS**

1,596 NKG employees across the group have access to our well-established online "NKG Learning" platform, used to offer centralized training content to our colleagues worldwide. In the consistently growing training library, they can discover a large variety of mostly voluntary training content in English, Spanish, Portuguese and German.

"Personal Growth Trainings" provide employees with the opportunity to build skills in topics of their interest through 97 different training modules across nine categories.

Employees are encouraged to participate in trainings as part of their workday, through a group-wide learning time quota of 12 paid working hours of learning time per year. In 2022 and 2023, a total of 1,885 voluntary modules were completed by NKG employees worldwide.



COMMUNICATION & TEAMWORK

Examples: Giving and Receiving Feedback, Navigating Difficult Conversations, Conflict Management.



DIGITAL SKILLS

Examples: Artificial Intelligence, Online Teamwork, Microsoft Office Skills.



DIVERSITY & INCLUSION

Examples: Cultural Diversity, Anti-Bias Training.



FOOD FOR THOUGHT

Examples: Company Culture, Design Thinking, Ethics.



HEALTH & SAFETY

Examples: Resilience, Mindfulness, The Importance of Good Sleep.



LANGUAGE TRAINING

Examples: German, Spanish and English Office Skills.



Examples: Change Management, Talent Development, Self-Organizing Teams.



PERSONAL GROWTH

Examples: Finding Motivation, Taking Ownership of Projects, Learning from Mistakes.



PRODUCTIVITY & ORGANIZATION

Examples: Project Management, Time Management, Working in accordance with the 80/20 Rule.

CODE OF CONDUCT TRAINING

Every year, the NKG Code of Conduct online training marks a time of awareness raising and knowledge building throughout the group. Training content is new every year and focuses on topics from the NKG Code of Conduct with high relevance for our employees. In 2022, colleagues gained in-depth insights into "Human Rights" and "Food Safety" - two core concepts of our coffee business that must be upheld and protected across all our activities. While NKG has qualified experts working to ensure our operations do not violate human rights, and that our product meets all applicable food safety standards, it is our firm belief that

everyone at NKG should have at least a basic understanding of both topics to ensure they are considered at all points in our processes.

In 2023, we took a different approach, focusing on our entire NKG Code of Conduct in an extended training session, with the goal of ensuring everyone has the same level of understanding, as well as to give newer colleagues an engaging and informative introduction to this fundamental document. To make content easy to understand, training is developed in-house by NKG and incorporates real-life examples and exercises relevant to our business context.

NKG colleagues without computer access are trained on Code of Conduct topics at our NKG Awareness Day instead of online.

TOTAL NUMBER OF EMPLOYEES

WHO RECEIVED CODE OF CONDUCT TRAINING

CODE OF CONDUCT TRAINING **COMPLETION RATE**

Would you like to experience our NKG Code of Conduct training first hand?







LOCAL TRAININGS

In recent years the focus of our work has been on expanding opportunities for digital and online learning, but there are also other established concepts for employee development at NKG. We are pleased to have revived many of our in-person training modules since the Covid-19 restrictions were lifted. Currently, 70 % of our group companies have implemented a regular performance review process to support employees in career development and identify individual training needs. In 2023, 1,038 of our employees participated in career or skill-related training, with an average duration of 16.25 hours. Learning priorities are usually identified in coordination with local management and can range from job-related skills and language courses to environmental or climate-related trainings.

1,038

16.25 hrs

AVERAGE TIME SPENT ON **CAREER OR SKILL**-

412.51 USD

ON CAREER OR SKILL RELATED TRAINING

OUTLOOK:

Employee training is one of our key priorities as we endeavor to consistently review our strategies and learning offers. Based on feedback for our current online trainings, our goals are to offer easier access to the learning library in an online space that employees regularly "visit", as well as to provide more short-form learning content that can be enjoyed alongside a single cup of coffee ... Stay tuned!

RELATED SUSTAINABLE DEVELOPMENT GOALS







INCREASE DIVERSITY

For us at NKG, diversity is the essence of our global operations. With over 60 companies across 28 countries and more than 3,300 skilled employees, our workforce embodies a rich variety of cultures, backgrounds, and expertise. This diversity is our strength, fostering innovation and driving our success in the coffee industry. Our Responsible Business Program aims to enhance this diversity further, creating an inclusive environment where every colleague feels valued, regardless of their personal characteristics. We are committed to equality not only as a matter of fairness, but as a catalyst for sustainable growth and innovative solutions. In 2023, we implemented our new HR software Workday to better understand and nurture our diverse workforce. With our ongoing commitment to inclusivity through initiatives like NKG PACE, we also reflect our dedication to being a global organization where diversity thrives.

IMPLEMENTATION OF WORKDAY

After months of intense preparation, we rolled out the global Human Resources System (HRS) Workday in December last year. Workday is a state-of-the-art HRS that offers great benefits for each individual employee, simplifies HR processes, and enhances efficiency and data security at NKG. This marks the first time in the history of NKG that all our group companies and employees worldwide use the same HRS.

One of the key benefits of Workday is its data analytics and reporting capabilities, which provide real-time insight into our HR metrics such as employee engagement, turnover rates and diversity. With this data, we can make more informed decisions and develop data-driven strategies to drive business growth and diversity within our organization.

Over the course of this year, we will further expand our use of Workday by implementing the "Talent" module.

With even more precise information about the skills of our employees, it will be easier for us to identify and specifically search for missing competencies within the group. This will enable us to seek out diverse backgrounds effectively and integrate them into our company in a beneficial way.





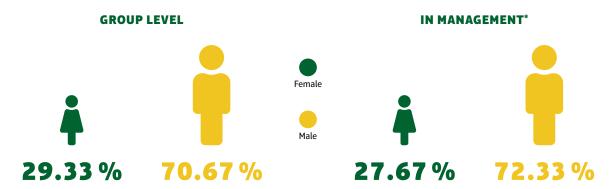
GENDER DIVERSITY AT NKG

We believe that gender diversity is a crucial driver of innovation in our global coffee business. By fostering an inclusive working environment that values different perspectives, we want to enhance our problem-solving capabilities and reflect our diverse customer base across the coffee value chain. While women play a vital role throughout this value chain, they often remain underrepresented. Due to both the history of the industry and

different realities in our producing countries worldwide, this is unfortunately also still the case in our organization. In 2023, only 29.3 % of all NKG employees worldwide were women. The share of women in management positions was 27.7 %.

At NKG, we acknowledge this challenge and are committed to improving our gender balance. The recent appointment of our first woman to the Board of Management marks a significant milestone, though we recognize that there is still much progress to be made. In her new position as Director Group Human Resources, Maren Uzarek will further drive the development of modern and futureoriented human resource policies within our group.

GENDER DISTRIBUTION



* Heads of departments or higher levels

PER REGION

	WORLD	AFRICA	ASIA	EUROPE	NORTH AMERICA	SOUTH & CENTRAL AMERICA	OCEANIA
Total number of employeees	3,362	617	309	440	521	1,298	177
Thereof men	2,376	441	207	238	378	979	133
	70.67%	71.47%	66.99%	54.09%	72.55%	75.42%	75.14%
Thereof women	986	176	102	202	143	319	44
	29.33 %	28.53 %	33.01%	45.91%	27.45%	24.58%	24.86%
Total number of employees in management position	365	66	32	82	61	115	9
Thereof men	264	43	23	57	39	95	7
	72.33 %	65.15 %	71.88%	69.51%	63.93 %	82.61%	77.78%
Thereof women	101	23	9	25	22	20	2
	27.67 %	34.85%	28.13 %	30.49%	36.07 %	17.39%	22.22%

To the company's knowledge, no employee identified with a gender other than male or female during the reporting year 2023. For this reason, the category "non-binary" was omitted from the report for readability.

NO WOMEN, NO COFFEE.

"The coffee industry, like many other sectors, has historically been male-dominated, even though women have made up a significant portion of the workforce in coffee producing countries. Having more women in all kinds of positions – but especially in leadership – will lead to more balanced and equitable decision-making processes. By focusing more on this pool of talent, we enhance our innovation, creativity and competitiveness."

Through initiatives like our "No Women, No Coffee" campaign on International Women's Day, we want to highlight the essential contributions of women to our industry. By showcasing influential personalities within our organization, we seek not only to honor their achievements but also to inspire future generations to pursue their careers in coffee.



















NO WOMEN, NO COFFEE.

JULIETE A. DE PAULA BOTELHO'S

INSPIRING JOURNEY AT NKG STOCKLER



Our group companies are already developing solutions wherever possible to address the challenges women are facing in the coffee industry. One great example of these local approaches is NKG Stockler in Brazil.

At NKG Stockler, Juliete's journey from warehouse assistant to mill operator exemplifies our group's commitment to gender diversity and inclusion. Despite initial challenges, Juliete pursued her dream job in the coffee mill, traditionally a male-dominated area. When faced with physical limitations, particularly in changing the heavy metal screens of the coffee graders, Juliete showed remarkable determination.

NKG Stockler supported her in overcoming this challenge. The company developed a specialized tool that enables her and other employees to perform this task and thus every aspect of the milling process, regardless of physical strength or gender. Juliete's success has paved the way for more women in the mill, inspiring others to follow suit.





Our current NKG PACE Partners: Jasmine Mitchell and Zion Brown

NKG PACE: PROMOTING DIVERSITY IN THE COFFEE **INDUSTRY**

At NKG, we understand that diversity encompasses far more than gender alone. In our dedication to promoting diversity, we acknowledge its broad spectrum of facets and contexts. One example of our commitment is the Neumann Kaffee Gruppe Partnership to Advance Coffee Equity (NKG PACE).

NKG PACE is a quality control-focused green coffee training program designed to address the significant underrepresentation of Black professionals in key roles within the U.S. coffee industry. Created in collaboration with the Coffee Coalition for Racial Equity, NKG PACE offers members of the Black community the opportunity to gain comprehensive knowledge of green coffee importing and the pre-retail coffee world, aiming to bridge the employment and decision-making gap in the sector.

Our important program is now in its third year. We are pleased to announce that in May, we welcomed a new cohort of PACE partners, following the successful graduation and Q grader certification of our previous participants. This initiative continues to showcase the strength of diverse perspectives in enhancing our industry knowledge and expertise. For more information about NKG PACE and its impact, please refer to our website: www.nkgpace.com



RELATED SUSTAINABLE DEVELOPMENT GOALS







3

PROMOTE RESPONSIBLE WORKPLACE PRACTICES

In a global organization such as NKG, where people from diverse backgrounds work together, it is crucial that we all share a common understanding of our core values and principles. A central intention of our Responsible Business Program is to promote responsible workplace practices and to enable our employees worldwide to conduct their work with the highest standards of integrity. To achieve this goal, we recognize the essential roles of both Compliance and Occupational Health and Safety (OHS).

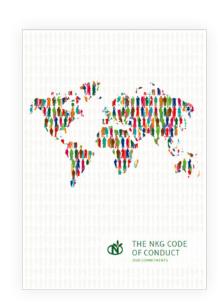
These two fields are not only pillars of our operational integrity, but are also closely intertwined in ensuring a safe, ethical, and sustainable working environment.

OUR COMPLIANCE WORK

Our group's commitment is built upon a robust compliance framework comprised of various policies and procedures that uphold our ethical standards and help us to meet legal requirements. At the heart of our compliance efforts lies our Code of Conduct, providing guidance to all employees across our operations.

The Compliance department at our parent company in Hamburg monitors important regulatory developments, conducts regular Integrity Risk Assessments and supports group companies with their Business Partner Due Diligence. Their work is complemented by trained Compliance Officers who serve as advocates in our group companies worldwide, multiplying our efforts and ensuring that employees have access to all relevant information, documents and mechanisms.

Since 2018, we also regularly nominate NKG Integrity Champions. With this initiative, we want to formally recognize exemplary behavior and honor colleagues who



DOWNLOADTHE NKG CODE OF CONDUCT

demonstrate outstanding ethical conduct in their dayto-day work. This conduct may take many forms, such as intervening effectively in critical situations, rejecting and reporting inappropriate gifts or speaking up in cases of disrespectful comments, bullying, harassment, and much more.

HALL OF FAME: MEET OUR NKG INTEGRITY CHAMPIONS



Chelsey Walker-Watson Head of Marketing at Atlas Coffee Importers Integrity Champion 2024

"Chelsey exemplifies integrity through her interactions with colleagues, customers, and really anyone she meets."



Bobby Corotan General Manager, Airport Coffee Mills Ltd Integrity Champion 2023

"Bobby is a kindhearted person who understands, respects, and treats us equally whatever our education level, origins or ethnic backgrounds."



Paula Vazquez Caetano Director Assistant, Legal at NKG Stockler Integrity Champion 2022

"Paula is always dedicated, committed, and curious. She helps everybody from every department at Stockler."



Mary Stella Corporate Accounting at NKG India Integrity Champion 2021

"She is a very humble person with friendly and helping nature. She has gained a lot of respect from all her colleagues and maintained a good rapport with everyone."

GRIEVANCE **MECHANISM**

At NKG, we are dedicated to upholding a high standard of integrity and accountability. However, we acknowledge that misconduct may still occur. For this reason, we have an Integrity Reporting Mechanism in place to report any potential or actual wrongdoing related to NKG, which violates applicable laws, the NKG Code of Conduct or the NKG Supplier Code of Conduct. Originally established for our own employees to seek advice and to report critical situations, we opened this grievance mechanism to external stakeholders such as customers and suppliers in 2022.

As part of this changeover, our Compliance Officers received comprehensive training on how to handle complaints. Besides, some of our subsidiaries have created additional reporting channels such as complaint boxes and committees to further lower potential barriers if people want to report a concern.

In 2023, a total of ten internal integrity complaints were filed by NKG employees via our Integrity platform, which fell under the categories "Conflict of interest, fraud and corruption", "Discrimination, harassment and bullying" and "Other". Out of these, seven were validated and led to further consequences. External complaints have not reached us via the platform yet. However, we received a total of eight external integrity complaints through other communication channels and validated four of them.

INTERNAL GRIEVANCES

INTERNAL INTEGRITY COMPLAINTS RECEIVED

INTERNAL INTEGRITY COMPLAINTS VALIDATED

IINTERNAL INTEGRITY **COMPLAINTS THAT LED TO FURTHER CONSEQUENCES**

EXTERNAL GRIEVANCES

EXTERNAL INTEGRITY COMPLAINTS RECEIVED

EXTERNAL INTEGRITY COMPLAINTS VALIDATED

EXTERNAL INTEGRITY COMPLAINTS THAT LED TO FURTHER CONSEQUENCES

NKG **AWARENESS** DAY

To ensure that everyone, regardless of their workspace, has regular opportunities to engage with and understand our Code of Conduct, values and shared commitments, we launched the NKG Awareness Day in 2019. This "offline" training format is conducted every year in our exporting companies and farms, with a new focus topic in each iteration. The Awareness Day features a combination of talks, exercises, and social activities designed to make learning engaging and memorable. Participating NKG companies receive guidance on training topics and planning from our parent company.

In 2022, the Awareness Day revolved around the topic of mental health. Since its inception in 2019, the central theme of the Awareness Day has been employee health and safety. In the context of NKG farms, mills, and warehouses, this typically means trainings on topics such as personal



protective equipment (PPE), safe handling of tools, fire and emergency procedures, and first aid – all training modules designed to ensure the physical wellbeing of our colleagues. However, mental health is discussed less frequently, both due to stigma and as it is seen as less important than physical health. The 2022 Awareness Day set out to clear up such misconceptions, to stress that both mental and physical health and well-being are equally important, and aimed to reduce the fear of addressing such issues. Bearing in mind that the Covid-19 pandemic was still not quite over in 2022, many people have experienced a high burden of fear, worry and stress over the previous years.



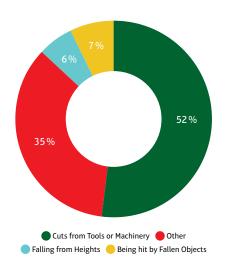
To repeat what was learned from earlier Awareness Days, the focus topic in 2023 was safety culture. Under the concept, previous health and safety topics were given more depth by emphasizing people's underlying attitudes and behaviors towards safety and showing that rules and regulations can only be one part of successful safety management at work. What is needed most is everyone's cooperation and deep understanding of how important it is to wear PPE, follow the procedures and keep themselves and their coworkers safe.

The Awareness Day reinforced the different spheres of safety, and also included a training module on food safety, to correlate with the previous Code of Conduct training. This was particularly relevant for employees in the mill and warehouse, who are in direct contact with our product and are on the front lines of ensuring its quality standards.

OCCUPATIONAL HEALTH AND SAFETY

In addition to our Awareness Day, we offer regular OHS training to ensure the safety and well-being of our employees. In 2023, 1,828 employees across the group participated in a training module of this kind. Nevertheless, work-related injuries and ill health are unfortunately not completely avoidable due to the physical nature of many of our workplaces. In 2023, we recorded a total of 269 cases group-wide, with 94.8 % occurring in our export companies and farms alone. The increase in cases since our last report can primarily be explained by better recording of incidents in our group companies and thus improved data availability and quality.

MAIN TYPES OF WORK-RELATED INJURIES



Regrettably, there was also a fatal accident on one of our farms in 2023 involving the driver of a ground harvester machine. In response to this incident, the affected farm implemented extensive measures to prevent similar accidents in the future. The specific type of machine involved in the accident is no longer in operation on the farm and was replaced with a safer model for ground coffee harvesting. Moreover, all employees working with machines and tractors have undergone repeated training on the relevant safety procedures. Support and psychological assistance were provided to all family members and colleagues for several months after the accident.

The accompanying chart illustrates the main types of work-related injuries, with the "Other" category including incidents such as commuting accidents, slipping and



stumbling accidents, animal bites, burns, assaults, etc. Based on this data, our group companies tailor their training programs as far as possible towards demand, and adapt preventive measures to the specific occupational fields. Through this targeted approach, we aim to further reinforce responsible workplace practices, reduce the number of work- related injuries and ill health, and provide all employees with a safe and ethical working environment.



OHS KPIS AT A GLANCE

	TOTAL	IMPORTING	EXPORTING	FARMING	SERVICES
Total number of employees	3,362	285	2,193	618	266
Total number of third-party workers employed	451	1	447	0	3
Total number of first-aid injuries	474	0	55	416	3
Total number of recordable work-related injuries or ill health	269	3	68	187	11
Total number of accidents that resulted in fatalities	1	0	0	1	0
Total number of employees represented in formal joint management worker health and safety committees	2,997	63	2,092	618	224
Total number of OHS training hours	9,725.23	204.9	8,030.13	1,226	264.2
Total number of employees receiving OHS training	1,828	85	1,133	486	124
Average time spent on OHS training per participating employee (in hours)	5.32	2.41	7.09	2.52	2.13
Total number of OHS training hours for third-party workers	891.9	0	879.9	0	12
Total number of third-party workers receiving OHS training	444	0	440	0	4
Average time spent on OHS training per participating third-party worker (in hours)	2.01	0	2.00	0	3.00

RELATED SUSTAINABLE DEVELOPMENT **GOALS**











ENHANCE SUSTAINABILITY PERFORMANCE WITHIN OUR SUPPLY CHAINS

IMPROVE TRANSPARENCY AND ETHICAL CONDUCT IN COLLABORATION WITH DIRECT SUPPLIERS

5

ENHANCE SUSTAINABILITY PERFORMANCE WITHIN OUR SUPPLY CHAINS

Through our Responsible Business Program, we are committed to maintaining ethical standards and accountability throughout our entire supply chain. Central to this commitment is NKG Verified, our responsible sourcing initiative aimed at providing traceable coffees that meet rigorous sustainability criteria. Additionally, we have been actively preparing for compliance with the European Union Regulation on Deforestation-Free Products (EUDR). In all aspects of our operations, we continually strive to find solutions that benefit both our customers and our producers in the supply chain.

NKG: verified **V**

NKG Verified was established in 2021 with the purpose of enhancing sustainable practices within farms and intermediaries operating in the producing country within established supply chains. Our objective is to furnish our customers with insights on NKG Verified supply chain

performance, ensuring that proactive measures are undertaken to overcome any challenges. Transparency in the provenance of our NKG Verified coffee is important to us, to therefore ensure a high degree of traceability as a core element of our program.

The sustainability focus areas of NKG Verified within the different actors of the supply chains are:







For more details on sustainability criteria see Responsibly Sourced Coffees - Neumann Kaffee Gruppe (NKG)

Identifying key sustainability challenges through annual on-site audits, third-party audits every three years (sample-based), and technical visits conducted by NKG field teams is a crucial first step towards improving the sustai-

nability of existing supply chains. These audits and visits help pinpoint areas where sustainability performance can be enhanced, including environmental impact, social practices, and economic sustainability.

In our ongoing journey, spanning over three years of dedicated effort we have reached significant milestones, including the recognition of the Global Coffee Platform (GCP) equivalence in 2023. NKG Verified is recognized by the GCP as Coffee Sustainability Reference Code equivalent - 2nd party assurance, as explained on the GCP Equivalence Mechanism - Global Coffee Platform. Likewise, NKG Verified is certified by the Brazilian Coffee OMdustry (Associação Brasileira da Indústria de Café) and is part of the sustainability seal "Cafés Sustentáveis do Brasil ABIC". Beyond the credibility gained through recognition from industry organizations, a pivotal

milestone for NKG Verified is the acknowledgment from producers across various origins who perceive that NKG Verified, alongside the support of NKG field teams, adds tangible value to their businesses. Our ongoing field efforts are therefore dedicated to sharing sustainability knowledge, providing services, and fostering enduring relationships with producers.

NKG VERIFIED **COFFEE AROUND** THE WORLD

In 2023, NKG Verified coffee became available from 10 countries, reaching over 30,000 farms, compared to nearly 13,000 farms participating in NKG Verified in 2022. This growth reflects a positive trend towards more responsible and transparent coffee production, plus more accessibility for consumers that are interested in drinking a cup of coffee from sustainable practices.



- **MEXICO** ARABICA & ROBUSTA
- HONDURAS ARABICA
- COLOMBIA ARABICA
- PERU ARABICA
- BRAZIL ARABICA & ROBUSTA CONILON
- **UGANDA** ARABICA & ROBUSTA
- KENYA ARABICA
- INDIA ARABICA & ROBUSTA
- VIETNAM **ROBUSTA**
- INDONESIA **ROBUSTA**

ENTITIES IN NKG VERIFIED SUPPLY CHAINS:





MARA AND GUILHERME ROMÃO, WITH THEIR CHILDREN LARA AND RAFAEL, OWN A DIVERSIFIED NKG VERIFIED SMALL FARM IN BRAZIL.

"We value our partnership with Stockler and our participation in NKG Verified. This relationship goes beyond buying and selling, and we receive support and services. Their guidance on the administration and organization of our farm as a business and the support given to participate in coffee championships have been key for us."



Farmer Groups



LUCIO GUERRA ELVIR, PRESIDENT OF THE FARMER ASSOCIATION OF CEMENTERA LEPAERA LEMPIRA IN HONDURAS, WHICH HAS A TOTAL OF 24 MEMBERS AND HAS BEEN NKG VERIFIED FOR 3 YEARS.

"As a farmer group, we are really grateful to belong to NKG Verified because it brings us closer to high-quality technical assistance and a fair market for the farmers of our association. Additionally, it allows us to acquire knowledge that will help us manage our farms correctly and be more efficient and stable over time."





DOUGLAS SERVES AS OPERATIONS COORDINATOR AT ARMAZÉNS LESTE DE MINAS IN BRAZIL. THIS FACILITY PLAYS A CRUCIAL ROLE IN THE NKG VERIFIED COFFEE SUPPLY CHAIN, SERVING AS A STORAGE HUB IN ONE REGION BEFORE THE COFFEE IS TRANSPORTED TO NKG'S EXPORTING FACILITIES.

"We are grateful for the opportunity to partner with NKG in its NKG Verified program, which offers us storage services. With our state-of-the-art automated systems, we ensure the integrity of the chain of custody for NKG Verified coffee."



Exporter



GUSTAVO IS ONE OF THE SUSTAINABILITY CONSULTANTS AT NKG EXPORTER COMPANY IN BRAZIL - STOCKLER LTDA. GUSTAVO AND HIS COLLEAGUES, GIOVANNA AND SABRINA, PROVIDE SUPPORT TO NKG VERIFIED FARMERS IN THE SOUTH OF MINAS GERAIS.

"We enjoy collaborating with coffee producers. We visit 100% of them multiple times throughout the year. Our engagement spans across both small and big farms, and we always find possibilities to contribute. By positioning ourselves as trusted partners and consultants, we've earned the confidence of producers in enhancing their businesses. Producers highly appreciate the opportunity to market their coffee as sustainable across various markets."

NEXT STEPS

Consolidation of existing supply chains with improved sustainability actions

After identifying the diverse sustainability challenges producers face during audits and field visits, the next steps include the implementation of tailored improvement plans. These plans entail actions to address the issues identified and improve overall sustainability performance, which are put into practice in close collaboration with our engaged staff on the ground.

Set up new NKG Verified coffee origins

With the success and increasing demand for NKG Verified coffee, there are efforts to expand the program to new

coffee origins. This expansion will not only broaden the availability of sustainably and traceably sourced coffee but also provide opportunities for coffee-producing regions to improve their practices and gain recognition for their commitment to sustainability

Continue forming partnerships to address sustainability topics

Collaboration and partnerships play a crucial role in addressing sustainability challenges specific to multiple origins and regions. By forming alliances with different stakeholders, we can work together to tackle issues such as climate change, biodiversity conservation, fair labor practices and economic development in coffee-producing regions. These partnerships enable more targeted and effective solutions tailored to the unique needs and circumstances of each origin.



On June 29, 2023, the EU Regulation on Deforestation-Free Products (EUDR) entered into force with the objective of tackling the EU contribution to global forest loss. This in turn helps mitigate greenhouse gas emissions and preserve biodiversity. Coffee as a crop is particularly vulnerable to climatic conditions. The impact of climate change is reflected in delayed harvests, crop failures due to droughts, increased disease outbreaks, or changing microclimates as a result of forest loss. It is therefore in our own interest and the interest of the 12.5 million smallholder coffee farms, globally, to act upon climate change.

EUDR IN A NUTSHELL

Coffee placed or made available on the EU market, or exported from it as of December 30, 2024, may only be produced on land that was not deforested after December 31, 2020, and in accordance with relevant national legislations. For this purpose, each EU-based operator (consignee on customs declarations) and non-SME trader (e.g. roasters or retailers) need to submit a Due Diligence statement through the EU TRACES system. Coffee considered at risk of non-compliance can be held up in customs, with coffee proven non-compliant needing to be disposed of or donated, with sanctions in case of non-compliance amounting to at least 4% of turnover, as well as further costs on the competent authority side.



The primary obstacle faced by the coffee industry in complying with the EUDR is not to prevent deforestation, as it is currently not a major concern in most coffee-growing regions. However, it is still crucial to monitor this issue as climate change causes coffee cultivation areas to shift to higher elevations, potentially encroaching on remaining

forested areas. The biggest challenge lies in meeting the administrative requirements of the EUDR within a tight timeframe. These requirements involve gathering geodata, verifying the quality and deforestation-free status of coffee, enhancing traceability systems, and efficiently sharing a significant amount of data and supporting documents.

EUDR AT NKG

NKG is in the best possible position to implement the EUDR, given the development of our supply chain programs: The Supply Chain Integrity Program (SCIP), NKG Verified, our service provision to smallholder coffee producers under NKG Bloom, and, above all, long-standing relationships in supply chains and our presence in producing countries with our NKG export companies. The principles guiding our actions and our expectations towards our suppliers have been established in our <u>Supplier</u> Code of Conduct, which is well-aligned with EUDR. All these efforts provide the basis for our NKG-wide integrated EUDR due diligence system, which is currently being set up. To do this, NKG has teamed up with osapiens, whose software will form the backbone of the due diligence system. The osapiens hub will allow our suppliers and group companies to efficiently provide information that passes through our due diligence processes and is smoothly exchanged along the supply chain.

The due diligence system will ensure coherence across the group and accurate data for successful EUDR alignment for our customers.

NKG's response to the EUDR involves ensuring a high quality of geodata, as well as conducting deforestation checks at plot level. We have developed a comprehensive and reproducible EUDR due diligence methodology, while taking legality and supply chain complexity into consideration at business partner, country, and shipment levels.

Additionally, we implement mitigative and preventative measures with direct suppliers on both country and international levels. Our setup enables us to provide direct support to producers and producer organizations via our experienced field staff on the ground, focusing on compliance and forest protection, among other factors. This enables us to ensure that the coffee from our NKG Bloom and NKG Verified programs will be EUDR-aligned by the end of quarter three of this year, leading to up to 4 million bags of EUDR-aligned coffee by the end of 2024.



osapiens is a rapidly growing company with over 300 employees and 1,200 customers, including multiple DACH-region retailers. It specializes in providing holistic solutions and software for supply chain management, quality control and compliance, all rooted in traceability fundamentals. The company's focus is on leveraging technology to enhance transparency, efficiency and traceability across supply chains. To ensure efficiency and harness economies of scale, osapiens' solutions focus on business partners and purchase orders.

The company's product scope extends beyond the EU Deforestation Regulation (EUDR), encompassing diligence system, features an integrative design that accommodates various data sources, streamlines

We perceive the EUDR as an opportunity to expand our efforts, strengthen supplier relationships, enhance integrated supply chains, improve traceability and provide greater value to our clients. However, we also recognize the potential risk that this regulation could reduce origin diversity and potentially exclude unorganized smallholders from the EU market or possibly the coffee market overall. Rather than engaging in supply chains that have higher deforestation risk, more producers, and less formal structures, the EUDR may incentivize companies to work in the lowest-risk supply chains, where compliance is cheaper and the risk of non-compliance is lower.

This shift could adversely affect the 12.5 million smallholder farmers and their families who rely largely on coffee for their livelihoods. These farmers can provide positive ecosystem services such as agroforestry in buffer zones of protected areas and are the backbone of the diversity of coffee origins and cup profiles, as well as the security of future supply given climate change.

We are therefore committed to fulfilling the objectives and industry-wide increased standards established by EUDR. We call upon the coffee industry to look beyond short-term costs and toward the long-term success of our sector.

RELATED **SUSTAINABLE DEVELOPMENT GOALS**









IMPROVE TRANSPARENCY AND ETHICAL CONDUCT IN COLLABORATION WITH DIRECT SUPPLIERS

A key objective of our Responsible Business Program is to work collaboratively with our direct business partners to elevate overall social and environmental practices along the coffee supply chain. This includes robust due diligence approaches that encompass multiple topics like human rights and food safety. Through our Supply Chain Integrity Program (SCIP) we uphold ethical standards by systematically assessing human rights risks and impacts. Additionally, our comprehensive food safety approach sets rigorous standards across our supply chains to ensure transparency and maintain product integrity.

Both SCIP and our food safety system underscore our commitment to sustainable practices and responsible corporate governance, which benefit our suppliers and customers alike.

SUPPLY CHAIN INTEGRITY PROGRAM

In 2022, we announced the implementation of our Supply Chain Integrity Program (SCIP). The goal of SCIP is to enable NKG to meet supply chain due diligence requirements through a risk-based management approach, thereby ensuring economic viability. The SCIP project was started with a pilot phase in five of our major coffee origins: Brazil, Colombia, Honduras, Vietnam and Uganda. Since implementation, we have discovered some key learning and improvement areas for the project, alongside foundational components that are already working well and are ready for a broader roll-out soon. We are now working on getting all of the elements that feed into SCIP into robust enough shape to scale up and roll out the full program in a targeted, pragmatic and timely manner.

ASSESSING RISKS

As we navigate complex global supply chains and diverse operational landscapes, conducting thorough human rights risk assessments emerges as a crucial step towards ensuring ethical integrity and sustainability. Through our assessments, we aim to systematically map potential human rights risks in multiple coffee-sourcing regions in order to prepare and respond to them by means of targeted activities or processes.



To ensure a broad scope and a deep level of detail in terms of assessment, we utilize an approach with two pillars: At base level, we conduct a comprehensive, country-level desk analysis of all coffee origins based on publicly available data and media reports. Risks detected through this process are helpful in identifying topics of interest in each region, but remain too high-level to constructively define improvement measures by themselves.

We therefore follow up with a second pillar, performing on the ground, in-depth Human Rights Impact Assessments that provide a better understanding of potential and actual risks in our supply chains. In-depth impact assessments have been carried out in Brazil, Colombia, Honduras, Vietnam and Uganda by experienced and independent external consulting teams.

Responding to identified risks through targeted remediation measures is undoubtedly the most important step in any risk assessment process. Due to the systematic nature of most human-rights risks in the coffee supply chain, NKG recognizes that remediation measures we undertake in isolation will only generate very localized and narrow levels of impact. We have therefore reinforced our commitment to pre-competitive collaboration as a key tool for creating scalable and sustainable positive change.

ILO CHILD LABOUR PLATFORM

Given the multi-dimensional nature of childlabor risks and the complexity of global supply chains, addressing child labor effectively requires collaboration among multiple stakeholders.

This is why, in 2023, we became a member of the ILO Child Labour Platform (CLP), by joining efforts to address the root causes of child labor through the inter-agency project "Ending child labour in supply chains: Addressing the root causes of child labour in supply chains through an area-based approach (CLEAR Supply Chains)".

The CLP is a cross-sectoral membership-based alliance of companies led by the ILO, with the objective of encouraging stakeholder exchanges, identifying obstacles in the implementation of ILO Conventions and strengthening cooperative programs against child labor.

In partnership with the European Union (EU), the Food and Agricultural Organization (FAO), the International Trade Centre (ITC) and the United Nations Children's Fund (UNICEF), the ILO leads the CLEAR Supply Chains project that started in 2023. The project primarily targets the coffee supply chains in Honduras, Uganda and Vietnam, in which NKG also has business activities.

Its aim is to develop integrated and replicable intervention models to tackle the root causes of child labor, through collaboration with companies from the coffee industry, UN agencies, key global and regional coffee networks, employer and worker organizations, civil society organizations, and other key stakeholders.





CONTINUOUS DEVELOPMENT

The findings from our risk assessment, as well as from the implementation process, have enabled us to further tailor and improve the program, to become more accessible, scalable and integrated with other processes and projects within the group. An important lesson from the pilot phase was the need for a robust underlying digital system to facilitate the aggregation of data, contact with suppliers and to streamline workflows into one place – be it the signing of our Supplier Code of Conduct, supplier questionnaires, due diligence screenings, or the management of improvement plans. NKG is therefore now implementing osapiens as a tool for all human rights and environmental due-diligence requirements, with the aim of greatly improving both the scalability and effectiveness of SCIP.



THE NKG CODE OF CONDUCT IN ENGLISH

DOWNLOAD

THE NKG CODE OF CONDUCT IN PORTUGUESE

DOWNLOAD

THE NKG CODE OF CONDUCT IN INDONESIAN

FOOD SAFETY

To improve cooperation with direct suppliers and increase transparency we invest significant effort and care into ensuring product safety. NKG is addressing this task by proactively supporting individual subsidiaries by means of the synergetic strength of the group.

A critical component for controlling transparent quality-assurance parameters is the uniform set of NKG Food Safety conditions. Adopted in 2023, this new set of rules allows NKG to establish individual requirements that, in



We also remain keenly aware of the need to revise smaller details of the program, especially at direct points of contact with our suppliers who are the heart of this effort. Based on feedback from our key suppliers, we are working on making our supplier self-assessment more accessible from a technical and language perspective. We are also revising our Supplier Code of Conduct as necessary, to ensure that its contents accurately reflect our expectations. The latest update from 2024 can be found right here:

DOWNLOAD

THE NKG CODE OF CONDUCT IN VIETNAMESE

DOWNLOAD

THE NKG CODE OF CONDUCT IN SPANISH



many cases, exceed legal standards. It enables us to harmonize environmental protection, quality, and customer satisfaction as supplier requirements.

In terms of environmental sustainability, our top priority is to identify and minimize the risks of food waste. Collective knowledge at NKG complements the individual Hazard Analysis of Critical Control Points (HACCP*) concepts of our

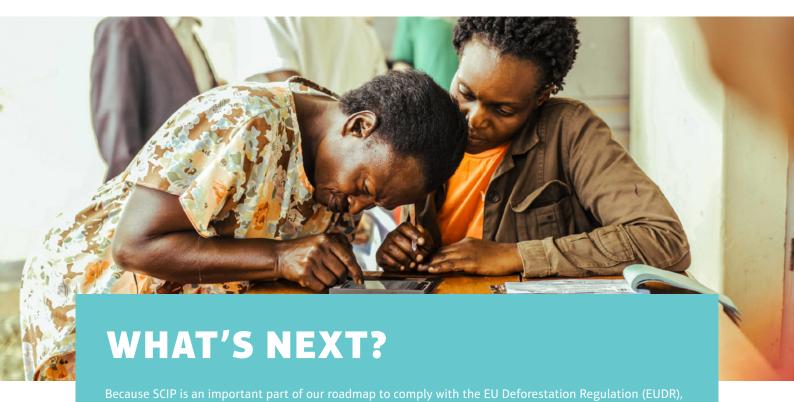
*HACCP is a systematic approach to the identification, evaluation, and control of food safety hazards. Specific consumer health hazards (e.g., chemical, physical, or microbiological hazards) shall be identified and the likelihood and severity of their occurrence shall be evaluated. Based on the analysis, the necessary preventive measures must be defined to avoid, eliminate or reduce to an acceptable level the identified hazards already during the production of the food and at all stages of the food chain.

companies. Each company develops its own risk assessment and action plan to protect coffee from non-compliance and potential food waste.

We have been steering a group-wide strategy to screen against contaminants through this risk-based approach since 2021. This screening enables us to proactively identify trends and risks while providing early-stage information in production countries. Through this level of data transparency, we have made a significant impact in the Global Coffee Platform (GCP) initiative. In 2022, we contributed to an official ban on glyphosate in Vietnam based on targeted field studies and data collections. As a result, the presence of the active substance glyphosate in Vietnamese coffee has now been reduced. This outcome is a positive step towards the conservation of various species and types of biodiversity.

Moreover, we continually update our global network with the latest information and changes regarding approved and banned active substances. This allows us to leverage synergies within the NKG supply chain to directly influence coffee-producing countries.

Food safety culture is practiced at all stages of our supply chain. Because we regard knowledge as a valuable asset and hold interest in our unique product, we offer diverse employee training programs. These include individual training sessions on product safety, process risks, contaminants, and allergens that are harmful to health, making our employees aware of their responsibilities through positive and contemporary exchange formats.



RELATED SUSTAINABLE DEVELOPMENT GOALS









IMPROVE FARMER LIVELIHOODS THROUGH VALUE-ADDED SERVICES

7

BRIDGE THE FINANCING GAP

IMPROVE FARMER LIVELIHOODS THROUGH **VALUE-ADDED SERVICES**

Ensuring the future of coffee hinges on making it a viable business for everyone involved, starting with the farmers. In light of climate change, migration, and the volatility of coffee prices, many smallholder farmers struggle to ensure a decent living for their families. To adapt to the growing complexity of coffee production they must be able to run their farms as businesses. At NKG, we are committed to helping them maneuver around current and future challenges and support their efforts to build a sustainable future in coffee farming.

SMALLHOLDER FARMERS AND **FARMER SERVICES**

Smallholder farmers are the backbone of the coffee industry. Approximately 80% of the world's coffee is produced by 12.5 million smallholder producers. However, global challenges such as climate change and rising interest rates pose major threats to the viability of their businesses, undermining not only the livelihoods of their families but also jeopardizing the future of coffee as a whole. Beyond the apparent influence of coffee prices, farmer services help to ensure that producers work profitably while safeguarding the future of the coffee supply. Due to each country and region having its own unique challenges and needs, there cannot be a one-size-fits-all solution for farmer services. These need to be tailored to the specific conditions of each country in order to be effective. The image below not only illustrates the different circumstances of coffee farmers in different countries and regions, but also shows the many and varied challenges they face.

DIVERSE CHALLENGES IN PRODUCING COUNTRIES



AVERAGE FARM SIZE

AVERAGE SMALLHOLDER

Low Productivity Lack of Access to High Quality Inputs Small Plot Sizes



AVERAGE FARM SIZE

1,674 kg/ha⁴ AVERAGE SMALLHOLDER PRODUCTIVITY

Soil Erosion and Degradation Climate Change Pests and Diseases



AVERAGE FARM SIZE

1,000 kg/ha* AVERAGE SMALLHOLDER

Lack of Access to Affordable Financing **Knowledge Gaps and Limited Availability of Training** Migration of Workforce

Note: The definition and characteristics of a smallholder and their farm vary greatly between different origins. This underlines the diversity of the challenges and the need for tailored solutions. *Source: Enveritas (2018), How many coffee farmers are there? Global coffee farm study.



NKG's answer to these challenges is NKG Bloom, our sustainable sourcing initiative. An integral part of this initiative are the Farmer Service Units (FSUs), which offer individual value-added services for smallholders and farmer groups embedded in our export operations. These services -

SUPPORTING FARMERS THROUGH NKG BLOOM

currently provided by more than 150 motivated colleagues include training in coffee farming, business best practices, and access to markets, infrastructure, seedlings and financing. This makes NKG Bloom well equipped to fulfill the needs of producers and deliver tangible impact on farms.

SPOTLIGHT: NKG BLOOM IN EAST AFRICA

CONTEXT

In East Africa, NKG Bloom is active in Uganda and Kenya. It was established in both countries in 2019 by Ibero Uganda Ltd (Ibero) and Tropical Farm Management Kenya (TFMK), highlighting the commitment of the company to invest in farmer service packages. The services that Ibero and TFMK provide to producers in their supply chain reflect the different degrees of farmer organization and the characteristics of the producer:

In Kenya, TFMK provides services to large cooperatives representing thousands of producers. Service packages are therefore tailored to the needs of cooperatives to create subsequent value for their members. This includes support in upgrading processing and quality infrastructure, for instance, coffee washing stations or drying facilities, agronomic advice from agronomists enmeshed in the cooperative involvement, and support in digitizing cooperatives' internal systems.

In comparison, Ibero deals with large numbers of individual smallholder producers in Uganda directly. As such, NKG Bloom service packages are tailored to the needs of the individual producers. The highest priority for most producers is improved access to finance, ranging from instant cash advances to medium and long-term loans for farm-related investments, and access to high-quality fertilizers. Ibero provides these services integrated into a system of technical assistance and training.

UGANDA



1.21 ha

FARM SIZE

14,200

2,700 mt PRODUCERS





NKG Bloom Kenya

0.16 ha

12 COOPERATIVES

LOOKING BACK

In 2023, Ugandan coffee producers faced challenges related to skyrocketing global interest rates and high inflation, increasing costs of living and making farm investments more expensive. Also, continuously high fertilizer prices increased production costs. At the same time, the growing global demand for Robusta coffee resulted in higher market prices and increased producer revenues, thereby providing farmers with more resources to cover production and living costs. Ibero Uganda reacted to the ambivalent conditions by diversifying its fertilizer suppliers, to be able to provide high-quality fertilizer at affordable costs, as well as adapting its portfolio of financial services. Its efficient

framework for financing operations enabled Ibero Uganda to absorb some of the interest-rate increases, protecting producers from some of the additional interest-rate costs.

In Kenya, heavy regulatory changes in the coffee sector led to TFMK having to rethink farmer service delivery models to be able to create value for Kenyan coffee producers. With the new regulation limiting the company's ability to offer certain support services such as direct financing and marketing, TFMK decided to focus its efforts on enhancing the agricultural practices of cooperatives. This included providing access to certification, strengthening processing capacities through tools such as efficient Ecopulpers or metal drying tables, and improving internal information and management systems.

SPOTLIGHT: NKG BLOOM IN CENTRAL AMERICA

CONTEXT

In Central America, NKG Bloom is established in Mexico and Honduras. Active since 2019 in Mexico, NKG Bloom is building on the successful Exportadora de Café California's (ECC) Por Más Café Program, which was initiated in 2014 to provide support to producers in light of the coffee rust crisis. Support services have been tailored to ensure sustainable recovery and secure coffee production as viable business source for the future, being geared towards individual producers and cooperatives alike.

In Honduras, Beneficio de Café Montecristo S.A. (Becamo) identified early on the absence of a holistic coffee plot renovation program as one key constraint for safeguarding coffee production in Honduras. Based on this assessment, Becamo developed their flagship initiative "Recuperando mi Cafetal" (Recovering my Coffee Garden), now a cornerstone of NKG Bloom in Honduras.

LOOKING BACK

Honduras and Mexico were subject to the weather phenomenon known as El Niño, which distorted the regular weather patterns and affected farming cycles. For example, delays in rain delayed the nutrient intake of coffee plants, thereby affecting vegetative development and plant productivity. Both countries struggled with continu-

Rubelsi Gonzalez Roblero NKG Bloom Mexico 2 ha AVERAGE FARM SIZE ACTIVE PRODUCERS ACTIVE PROPUCERS PROVIDED

HONDURAS



ous outward migration, putting the continuity of coffee production in some coffee regions in doubt.

Even before the capricious weather conditions put the importance of climate into the spotlight, ECC and Becamo had already leveraged their NKG Bloom structures to boost climate change mitigation/adaptation and for the safeguarding of natural resources. ECC doubled down on its efforts to provide high-quality seedlings to producers. Seedlings grown in ECC's own tree nursery are more resistant to changing climate patterns and also have a higher resistance to certain diseases, resulting in fewer

agrochemicals being needed. ECC also supported cooperatives to install water-saving processing equipment.

Becamo boosted its efforts to reduce emissions from coffee production through intensified producer support in the decentralized production and application of organic fertilizers and crop stimulants on a community level. As part of its renovation program, Becamo promoted the use of the environmentally friendly Ecopil technology* and drove the development of resilient and biodiversity rich agroforestry systems.

*Ecopil is a technology that uses biodegradable paper instead of plastic for the packaging of seedlings. This does not only reduce plastic waste, but also transport and planting costs.



framework, resulting in services that directly and indirectly affect farmer livelihoods on a positive level. The NKG Bloom impact framework acknowledges the complex interactions and causalities related to farmer livelihoods, including economic, environmental and social dimensions. Through this framework, services that NKG companies provide to farmers contribute to the United Nations Sustainable Development Goals. This contribution is regularly monitored by NKG in cooperation with its partners. NKG Bloom is acknowledged as a viable sustainability scheme under the Global Cffee Platform's Equivalence Mechanism. By 2030, we aim to establish Farmer Services Units in 10 countries, thereby providing value-added services to 300,000 smallholder farmers.















BRIDGE THE FINANCING GAP

Despite being trained in the proper use of fertilizers, farm rehabilitation and renovation, or improved processing techniques, coffee producers often lack the necessary funds to implement their knowledge. This is why farmer financing is a key objective of our Responsible Business Program. By offering easy access to loans for farmers and farmer groups, we aim to bridge the financing gap left by banks and microfinanciers.

THE IMPORTANCE OF FINANCIAL **ACCESS FOR** COFFEE FARMERS

While coffee farmers face various challenges, lack of access to financing is an issue that exacerbates everything else. The umbrella term "finance" can mean many different things to coffee farmers though:

Whereas one farmer requires quick cash to cover unforeseen expenses or to bridge a financial gap before their next income, another farmer needs to buy fertilizer on credit to ensure a successful next harvest. One farmer seeks an affordable loan to upgrade their diesel generator to solar-powered equipment, while another farmer needs to finance the replanting of a coffee plot, which will only yield sufficient coffee to repay a loan after two to three years.

Without access to sufficient finance, coffee growers may face difficulties in improving their farms as businesses, often finding themselves unable to make them profitable or attractive for subsequent generations. Without financial options, households are more susceptible to emergencies or external shocks. Consequently, farmers may consider

shifting to quicker-yielding cash crops as immediate solutions, despite the potential long-term uncertainties this may bring to both their livelihoods and the coffee sector.





In many coffee origins, coffee farmers have difficulties accessing the right financial product at the right time and under acceptable conditions. Some financial institutions shy away from them due to perceived high risk and the unattractive nature of coffee producers as clients and, therefore, do not offer financial products to them. The perception of coffee farmers as "risky clients" results from the fact that coffee producers have a negative cash flow for most of the year as they are investing most of the time in inputs, labor, etc.; while in most coffee origins the income-generating harvest only happens once per year. Even with optimal care, the harvest then depends on weather and natural conditions and is under pressure from pests and diseases. Also, the remote location of many coffee farmers, often paired with comparable small-credit amounts, makes dealing with them less interesting for financial institutions.

To compensate for this type of coffee farmer client profile, financial institutions either ask for high interest rates or high collateral (or both), making formal financial products more of a burden than a solution. Financial products that are not tailored to the coffee-crop cycle, such as starting repayments for

loans for new plantations after one year – although the new plants will only yield a full first harvest after three years – can endanger coffee producers' financial stability and therefore have the opposite of the desired effect.

Coffee farmers who are able to earn decent incomes from the coffee business are the backbone of NKG's business. In instances where financial institutions are not able or willing to provide financial services to coffee farmers in NKG supply chains, NKG can either directly provide these services or facilitate their provision indirectly. These services can range from short-term advance payments on future harvests, credit-based provisions of inputs, to long-term investment loans. NKG is able to do this because the company has long-term relationships with producers, has field teams that advise producers, not only on finance, but on coffee-related aspects as well, has a physical presence and proximity even in most remote areas and can accept collateral or repayments even as coffee. NKG can further leverage an extensive network of partners and use its relationships with banks to design or provide products that target specific producer groups or reward sustainable practices.

SMALLHOLDER **LIVELIHOODS** FACILITY

With the objective of closing the persistent financing gap in twelve NKG coffee origins, NKG decided to launch the Smallholder Livelihoods Facility (SLF) in 2019. This innovative financing facility was among the first instances in which a commodity trader like NKG partnered with governmental and development organizations, as well as

commercial banks, to enable easier access to financing for smallholder farmers. This combines a revolving credit line and a risk-sharing mechanism, which reduces the direct credit risk of loans awarded to smallholder farmers and farmer groups.

The structure of the SLF enables NKG to scale the portfolio of loans awarded to coffee growers, enabling previously excluded farmers to gain access to financial services. The NKG exporting companies can utilize the revolving credit line to provide producers with credit through streamlined and rapid procedures. Through mobile money and digital payment technologies, NKG exporters ensure seamless transactions.



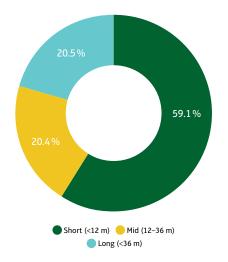




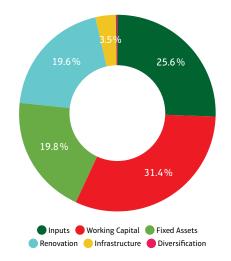


To the present date, the SLF has disbursed more than USD \$10 million to smallholder producers in four countries: Mexico, Uganda, Kenya and Honduras. Most coffee farmers use the SLF for financing inputs, to cover short-term cash needs, or to invest in coffee plot renovation. Cooperatives also make use of the SLF to upgrade their processing facilities, enabling them to achieve higher market prices for their members. By the end of 2023, the SLF had more than 16,000 active borrowers, out of whom, 27% were female and 23% were young people below the age of 35.

PORTFOLIO OUTSTANDING BY TENOR



PORTFOLIO OUTSTANDING BY LOAN PURPOSE



TAILORING SERVICES FOR COFFEE **SMALLHOLDERS**

The financial services that coffee producers require and the level to which the requirements are met by local financial institutions, differ greatly between coffee producing regions. NKG is working to get a better understanding of the shortcomings in each region to see how the identified gaps can be closed, e.g.; through the SLF or by means of other structured mechanisms.

In 2023, NKG companies in cooperation with its partners conducted in-depth market and feasibility studies focusing on access to financing for coffee farmers in NKG supply chains. These assessments will result in concrete action plans towards closing identified financing gaps:



NKG Vietnam, in cooperation with Tchibo, conducted a study to identify models to provide financing to coffee growers excluded from formal financing, particularly members of ethnic minorities and uncertified producers. Results show that a future financing offer will need to predominantly focus on long-term lending. Additionally, the study identified significant financial literacy gaps among farmers; therefore, future financial services will need to be accompanied by comprehensive training and support.

(N) | SKN Caribecafé

SKN Caribecafé (Colombia), supported by IDH, carried out a feasibility and design study to develop a financial product that targets smallholder producers in Huila. Based on this study, the development of a concrete financing framework has been initiated aiming at establishing a credit product to facilitate the purchase of highquality fertilizers in the regions of Antioquia and Huila.

(N) | City Coffee

City Coffee Ltd (Tanzania) decided to commission NKG's Sustainable Business Unit (SBU) to analyze its farmer service model, which includes the provision of financing and development of a roadmap towards scaling up services. This analysis identified the potential to leverage NKG's SLF to upscale financial services for coffee growers in Tanzania. As a result of this, as supported by the SBU, City Coffee Ltd. has begun scaling up its farmer services, as well as the formalization of financial services to coffee growers.



ESG FINANCE IN BRAZIL



In addition to smallholder financing, NKG companies engage in the interlinking of financing and sustainability practices. NKG Stockler Ltda. (Brazil) concluded a first ESG financing transaction with the Brazilian bank, Itaú BBA. This financing line is linked to Environmental (E), Social (S) and Governance-related (G) criteria and will be used to commercialize and export certified coffee, rewarding the investment through sustainability certification schemes.

Integrating sustainability practices and financing enables NKG Stockler to further promote sustainable and regenerative practices among coffee growers in its supply chains, as well as upscale impact in the Brazilian coffee sector.













MEASURE AND ENHANCE OUR ENVIRONMENTAL PERFORMANCE

9

PROMOTE ENVIRONMENTALLY FRIENDLY AND RESILIENT COFFEE FARMING PRACTICES

MEASURE AND ENHANCE OUR ENVIRONMENTAL PERFORMANCE

At NKG we recognize the urgent need to address climate change and to limit global warming. The corporate sector significantly influences global greenhouse gas emissions, giving companies a crucial role in protecting our climate and ensuring a seamless and successful transition to a low-carbon economy. Understanding the environmental impact of our operations is critical. As part of our Responsible Business Program, we prioritize assessing our environmental footprint and adapting our business model to support a low-carbon future.

OUR JOURNEY

Our journey towards measuring our environmental impact began in 2021 when we developed a robust methodology and calculated the carbon footprint of a pilot group of companies. We used the Greenhouse Gas Protocol Corporate Standard (GHGPCS)¹ as a guideline to compile our GHG inventory. In 2022, we expanded this measurement to the entire group, publishing our first corporate carbon footprint (CCF) as a baseline in the NKG Sustainability Report 2022. This initial assessment highlighted areas for improvement in data quality and understanding. Consequently, we adopted 2022 as our new baseline due to its more comprehensive and accurate representation of our operations and emissions.

This chapter presents our updated 2023 corporate carbon footprint and compares it to our 2022 baseline. In the graphs, the inner circle represents our 2022 baseline, while the outer circle shows our 2023 corporate carbon footprint. In this way, we aim to clearly illustrate how the percentages of each category in our scopes have changed across the two different years.



EMISSION SOURCESACROSS THE NKG SUPPLY CHAIN



Given the diversity of our operations, we have illustrated our corporate carbon footprint and its boundaries in the graphic above. Our CCF calculation covers four different company profiles: our farms (focusing on coffee farming, nursery operations and forestry projects), exporting companies (handling coffee procurement and export coordination), importing companies (procuring coffee for importation and domestic sales), and service companies (processing, warehousing and handling diverse support functions). Emission sources across these profiles include direct emissions from electricity generation, processing, and transportation, in scope 1; indirect emissions from purchased electricity in scope 2; and a broad range of indirect emissions in scope 3 (e.g.; transportation, waste management, employee travel, and coffee farming).

CORPORATE CARBON FOOTPRINT

Figure 1 presents the corporate carbon footprint for 2022 (our baseline) and 2023 (our most recent calculation). The contributions of each scope do not vary significantly from year to year.

Scope 1: contributed 0.4 % in 2022, and decreased to 0.3 % in 2023.

Scope 2: contributed 0.2 % in 2022, and decreased to 0.1 % in 2023.

Scope 3: remained the largest contributor, increasing from 99.4 % in 2022, to 99.5 % in 2023.

Overall, our total corporate carbon footprint increased from 3,366,727 tons of CO₂e in 2022, to 3,732,410 tons of CO₂e in 2023, a rise of 10.86 %. This is mainly due to higher purchases of goods and services, plus an increase in transportation activities and energy consumption. Despite this growth, the contribution of each scope in relation to our overall carbon footprint remained relatively stable in 2023.

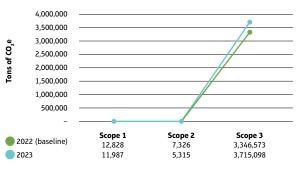


Figure 1: Breakdown of corporate emissions in 3 scopes.

EMISSION BREAKDOWN BY COMPANY TYPE

The emissions breakdown by company type remained similar to our baseline, with importing companies representing the largest portion.

For importing and exporting companies, most emissions fall under scope 3 due to purchased goods and services. For farms, emissions are mainly in scope 1 because of the use of agrochemicals. Service companies, primarily warehousing, focus on scope 3 emissions caused by transportation.

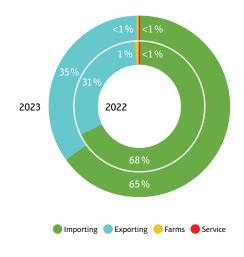


Figure 2: Breakdown of corporate emissions by company type.

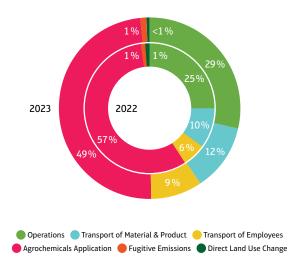


Figure 3: Breakdown of direct emissions in 2022 and 2023.

SCOPE 1

As previously described, scope 1 emissions made up 0.4 % of our total emissions in 2022, and 0.3 % in 2023. This corresponds to 12,828 tons of $\mathrm{CO_2}\mathrm{e}$ from our direct activities in 2022. Out of these emissions, 97 % were attributed to the agrochemicals used on our farms. In 2023, our direct emissions decreased to 11,987 tons of $\mathrm{CO_2}\mathrm{e}$. This was partly due to a 20.77 % reduction in emissions from agrochemicals, contributing to an overall 6.56 % drop in scope 1 emissions. During this period, fuel consumption for operations rose by 7 %, while emissions from transport fuel fell by 5 %.

The majority of our scope 1 emissions come from farm operations, followed by those from exporting companies and mills.

SCOPE 2

In 2022, the majority of our scope 2 emissions came from electricity consumption, with a smaller share attributed to district heating. By 2023, scope 2 emissions decreased by 28 % thanks to a greater adoption of renewable energy.

In total, the share of renewable energy in our electricity mix increased from 25 % in 2022, to 33 % in 2023, as more of our group companies worldwide started generating or purchasing renewable energy.

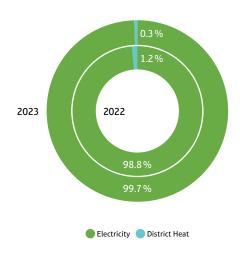


Figure 4: Breakdown of indirect emissions in 2022 and 2023.

SCOPE 3

Indirect emissions arise from various activities across our value chain, including coffee farming, third-party transportation, and material manufacturing. In 2022, scope 3 emissions, which are by far the largest portion of our corporate carbon footprint, accounted for 99.4 % of our total emissions, amounting to 3,346,573 tons of CO₂e. In 2023, this figure saw a slight increase, reaching 99.5 % of our total emissions, or 3,715,098 tons of CO₂e.

A significant share of these scope 3 emissions comes from coffee farming. As illustrated in the graph, coffee farming alone contributed at least 90 % to our indirect emissions in 2023. These emissions grew by 8 % from 2022 to 2023, largely due to the business activities of our importing and exporting companies.

Product transportation is our second-largest emission category, representing 7 % to our overall corporate carbon footprint. Emissions from this category rose by 68 %, primarily due to increased coffee purchases and farming activities. Road transport, managed mostly by exporting companies, and sea transport, handled by importing companies, are the main sources of these emissions.

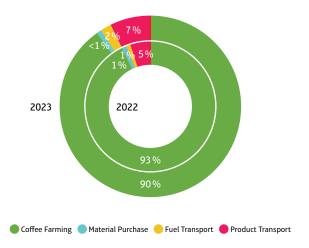


Figure 5: Breakdown of other indirect emissions in 2022 and 2023.

Material purchases, excluding coffee, are our third-largest emission source. This category saw a significant reduction of 40 %, now making up less than 1 % of our scope 3 emissions. This decrease is largely attributed to the reduced use of agrochemicals.

Overall, scope 3 emissions increased by 11 % compared to the previous year. As we gather and analyze more primary data, we will continuously refine our assessment of scope 3 emissions to better understand and address NKG's environmental impact.



In 2023, after establishing 2022 as our new baseline and reviewing our environmental footprint data, we outlined a path for climate action under objective 8 of our Responsible Business Program. Our work, so far, includes the following steps:

- 1. Measuring our baseline.
- 2. Identifying key focus areas for our climate strategy.
- 3. Designing a climate action plan (CAP).

Our climate action plan serves as a strategic framework to align our business strategies with a low-carbon economy, thereby reflecting our commitment to environmental responsibility. It emphasizes a number of mitigation and adaptation strategies, aiming to integrate climate change considerations into every aspect of our operations. This includes decisions on mill construction, farming practices implemented with our suppliers, and overall business activities. Our purpose-driven approach ensures that we not

only reduce our climate impact, but also adapt effectively to current and anticipated changes while maintaining environmental sustainability and financial viability.

By the end of 2023, we established internal targets to decrease our greenhouse gas emissions. As a first step in this journey, we committed to reducing our scope 1 and scope 2 emissions by 3 % in 2024 and by 6 % in 2025. These short-term targets reflect our expectation of an exponential shift towards low-carbon practices within our business, which is why we opted for a more modest reduction in 2024, followed by a more ambitious goal in 2025.

For scope 3 emissions, we decided to delay the setting of specific reduction targets. Instead, we are focusing on enhancing and refining our Life Cycle Assessment (LCA) approach, particularly for our coffee farming emissions, which represent the largest part of our emissions. Additionally, we are working to improve the accuracy of our scope 3 data using primary sources, before committing to any reduction targets.

To achieve our strategy and goals, our efforts are being concentrated on the following key focus areas:

KEY FOCUS AREAS

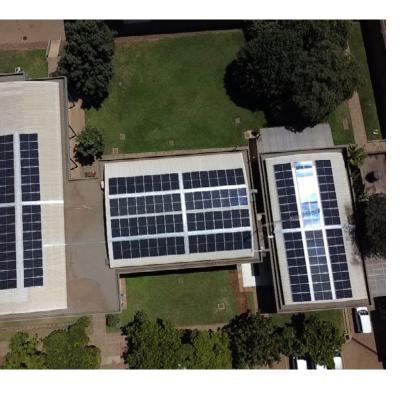
1. GREENHOUSE GAS EMISSIONS

As part of our climate action plan, energy audits will be conducted across all our exporting companies to identify additional opportunities for emission reductions. Our group companies have started to actively work on decreasing transportation-related carbon emissions. So far, 16 % of our companies have implemented measures, such as increasing the use of biofuels, transitioning to lower-emission fuels, adopting electric vehicles, using employee carpooling, and optimizing transportation routes.

Additionally, we have already improved energy efficiency in 35 % of our group companies through technological advancements and equipment upgrades. We will continue to prioritize this matter in order to significantly reduce our emissions.

2. ENERGY CONSUMPTION

Through the efforts of 12 of our group companies, we have successfully increased the proportion of renewable energy in our electricity mix from 25 % to 33 % between 2022 and 2023. A key focus of this effort is expanding on-site solar panel projects at our exporting companies and farms.



SOLAR PROJECTAT NKG EAST AFRICA



One notable example showcasing NKG's commitment to climate action and environmental protection is the solar project at NKG East Africa, our regional headquarters in Nairobi. This initiative is the first of its kind in our regional portfolio and has been established in partnership with Equator Energy. This project enables us to significantly reduce our carbon footprint and to save water that would otherwise be used for the operation of thermal power plants, one of Kenya's main sources of electricity: Through every kWh of solar energy consumed from the project, we avoid ~1 kg of CO₂ and save ~0.05 liters of water, ensuring a guaranteed saving from the discounted rates.

11

AT NKG EAST AFRICA WE HAVE EMBRACED A TRAJECTORY TO MITIGATE OUR IMPACT ON CLIMATE CHANGE AND ADAPT OUR BUSINESS TO THE CURRENT AND EXPECTED CHANGES. WE ACKNOWLEDGE THE GREATER CONTRIBUTION OF THE SUPPLY CHAIN (SCOPE 3) EMISSIONS TO OUR FOOTPRINT BUT ARE ALSO CERTAIN THAT CHANGE MUST START FROM OUR IN-HOUSE OPERATIONS (SCOPE 1 & 2 EMISSIONS). AT NKG, WE ARE ALL ABOUT COFFEE AND WILL PROTECT THIS PRECIOUS COMMODITY FROM THE IMPACT OF CLIMATE CHANGE.

Melyne Amolloh, Regional Responsible Business Program Manager, East Africa

3. RAW MATERIAL SOURCING

Over the past months we have expanded our monitoring efforts to include raw material sourcing as we aim to reduce the environmental impact of our coffee export packaging. In 2022, 87 % of our packaging consisted of jute bags, while plastic packaging made up just 13 %. In 2023 we reduced the use of plastic packaging to just 10 %. Our transition to biodegradable **Ecopil*** bags is another important step towards minimizing plastic waste and protecting the environment. These bags decompose naturally without leaving harmful microplastics, therefore safeguarding ecosystems.

4. WATER USAGE

A water footprint is a crucial tool for assessing freshwater use, covering both direct and indirect consumption by consumers and producers alike. For corporations, the water footprint represents the total volume of freshwater used directly or indirectly throughout operations. This includes two key components:

- Operational (direct) Water Footprint:
- The water that a business uses and contaminates through its own activities.
- Supply Chain (indirect) Water Footprint:

The water that is used or polluted to produce the goods and services that a business relies on.

The corporate water footprint combines blue, green and grey water footprints. This approach adheres to the Water Footprint Assessment Manual by the Water Footprint Network² and is typically measured as a volume of water per unit of time within a specific area or region.

*What's Ecopil?

A technology that uses biodegradable paper instead of plastic for the packaging of seedlings.
This does not only reduce plastic waste, but also transport and planting costs.

- **Blue Water:** Fresh surface and groundwater, such as water from lakes, rivers and aquifers, which is abstracted and not returned to the original source.
- **Green Water:** Rainwater used for consumption that does not contribute to runoff.
- **Grey Water:** An indicator of freshwater pollution, linked to the production of goods throughout their supply chain.

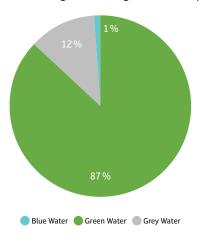


Figure 6: NKG Water Footprint 2023.



We calculated our direct corporate water footprint in 2022, including blue, green and grey water for the first time. We consumed 193.31 million liters of blue water, 28,115.22 million liters of green water, and 4,012.97 million liters of grey water. In 2023, blue water consumption increased by 11 %, and grey water by 0.5 %. However, the composition of our water footprint remained equal between 2022 and 2023.

To address our levels of impact, we are implementing various water conservation measures across our operations: In Mexico, Brazil and Peru, our dry-mill facilities are engaging in water conservation through wastewater treatment and recycling, which reduces the discharge of water into sewer systems and natural bodies. In Indonesia, we utilize semi-washed processing, as well as recycling water to minimize waste.

In Mexico, we also use artificial dams to ensure efficient water usage and to adhere to regulatory standards for water quality, while reintegrating treated water into natural bodies. In Uganda and Honduras, we focus on monitoring borehole water usage and employing biodigesters for natural treatment. In Costa Rica, our well-designed recirculated water system, complemented by third-party treatment processes, supports our wet-mill operations. Additionally, in India, we prioritize responsible wastewater containment and treatment in septic tanks to prevent discharge into sewer systems.

All these efforts reflect our dedication to reducing our corporate water footprint and promote sustainable water use throughout our global operations.

5. WASTE GENERATION

In 2022, we generated 9.6 thousand tons of waste. Of this total, 76 % ended up in landfills, 20 % was composted, and 4 % was recycled. In 2023, our overall waste quantity remained relatively stable, with minimal changes in waste management practices. However, we increased the portion of waste that was diverted to energy recovery.

In the future, we want to focus on innovative approaches to repurpose and reuse materials throughout our operations. Several of our exporting companies, for example, use coffee husks as a biofuel resource, while reducing waste and providing a sustainable energy source. Additionally, Neumann Gruppe USA has partnered with GrainPro to facilitate the collection and recycling of hermetic coffee bags. This initiative helps to divert packaging waste from landfills and encourages reuse and recycling within the coffee industry.

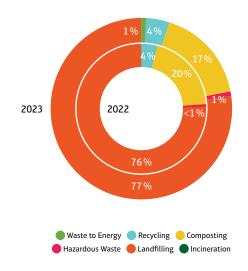


Figure 7: Breakdown of waste management at NKG in 2022 and 2023.



CONCLUSION

In 2023, we made remarkable progress in reducing our emissions, achieving a 7 % reduction in scope 1 emissions and an impressive 27 % reduction in scope 2 emissions. These significant milestones were mainly driven by our farm initiatives and the increased incorporation of renewable energy into our electricity mix. The results of our 2023 corporate carbon footprint exceeded our envisioned reductions targets, revealing that changes within our group occurred faster and on a larger scale than we had anticipated. The major decrease in scope 2 emissions was largely due to projects already in progress, while further reducing scope 1 emissions remains a challenge.

Looking ahead, our climate action plan outlines our commitment to continued reductions in 2024 and 2025. We are actively working on initiatives such as conducting energy audits, performing environmental risk assessments, implementing recommended measures across our exporting companies and farms, and expanding our renewable energy projects.

For scope 3 emissions, while we continue to enhance our access to primary data, we have also started exploring potential emission reduction projects in key areas such as transportation and waste management. These efforts are part of our broader strategy to achieve meaningful and lasting emission reductions across our entire supply chain.

References

¹WRI & WBCSD (2015): The greenhouse gas protocol: A Corporate Accounting and Reporting Standard. Revised edition. [Online]. Available at: https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf

²Hoekstra, A.Y., Chapagain, A.K., Aldaya, M.M. and Mekonnen, M.M. (2011): The Water Footprint Assessment Manual: Setting the Global Standard. [Online]. Available at: TheWaterFootprintAssessmentManual_English.pdf









PROMOTE ENVIRON-**MENTALLY FRIENDLY AND RESILIENT** COFFEE FARMING **PRACTICES**

Since we began our journey towards improving our environmental performance as a group in 2022, aligning farm operations with current sustainability standards has been a key objective of our Responsible Business Program (RBP). Amidst our environmental efforts, we have encountered significant challenges, particularly regarding emissions from coffee farming. As a coffee trading company, it is imperative for us to recognize and address these challenges to ensure the resilience and sustainability of our operations. We have therefore designated our own three farms to serve as the testing grounds for innovative sustainability solutions, which are required to develop mitigation and adaptation measures for farmers across our supply chains.

COFFEE AND CLIMATE CHANGE

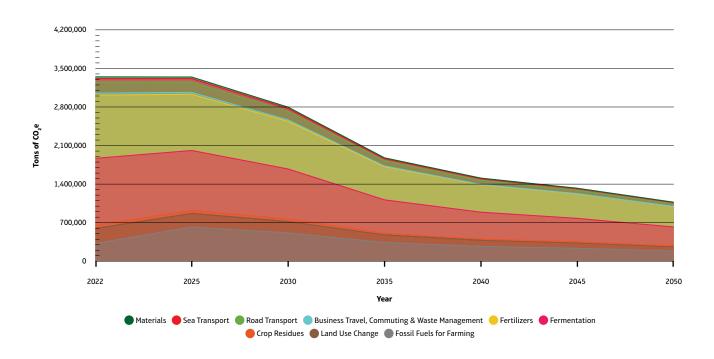
Climate change poses multifaceted challenges to coffee production, affecting its quality, sustainability, flavor, aroma and nutritional value. Elevated temperatures, altered rainfall patterns and heightened carbon dioxide levels have an impact on the essence of coffee cultivation, leading to decreased yields and economic losses for farmers. While bearing the brunt of climate change impacts, agriculture, forestry and other types of land use are also major emitters, accounting for around 20 % of global greenhouse gas (GHG) emissions¹, making it crucial to reduce emissions from land-related activities.

At group level, the analysis of our corporate carbon footprint revealed that approximately 90 % of our overall greenhou-



se gas emissions as a group in scope 3 occur at farm level in our supply chains. Building on this, we have developed a comprehensive pathway that outlines the major sources of these emissions, as well as their potential for reduction, which highlights the importance of fertilizers and other coffee farming-related emissions. This plan aligns with the objective of limiting global warming to 1.5°C and advancing towards a net-zero future.

SCOPE 3EMISSION REDUCTION PATHWAY



FOCUS ON **FERTILIZATION**

As illustrated in the graph above, the most significant emission drivers are fertilization, the fermentation process, land use changes, and fossil fuel usage for farming. Recognizing these drivers, we at NKG are working on gaining a better understanding of these drivers and assessing the suitability of different technical approaches in diverse coffee systems.

We scale the use of regenerative agriculture in coffee, meaning agricultural management practices that enhance soil health, reduce fertilizer use and create carbon sinks. These can look different depending on the coffee origin. In Brazil – a country with mechanized coffee production – trees (for example shade trees, windbreaks or fruit trees) at the edge of the coffee farm, or biochar carbon removal can be effective. In non-mechanized systems, for example in Indonesia or Papua New Guinea, agroforestry, the integration of perennial crops, cover crops and the use of leguminous plants can increase soil-based carbon sequestration.

We also aim to leverage negative emission technologies like biochar carbon removal, stretching from larger-scale technology in Brazil to medium scale in Colombia, down to smallholder levels in Vietnam. This technology can have a dual effect: it captures carbon and stores it in the soil while simultaneously enhancing soil characteristics, which decreases the need for fertilizers.

The use of inorganic fertilizer is a key driver of emissions; therefore, we aim to focus on how NKG is working to reduce emissions in this area. While part of a diverse set of interventions, efforts to minimize the reliance on these fertilizers are central in our journey to reduce our environmental footprint. The firsthand perspective at our NKG farms in Brazil, Uganda and Mexico enables us to explore different approaches to decrease fertilizer use, based on local requirements and conditions.

OUR **NKG FARMS**



Finca la Puebla, located in the northeastern part of the state of Puebla (municipality of Xicotepec de Juárez), Mexico, has adhered to a stringent sustainability concept since joining NKG in 1995. While Finca La Puebla's zero-insecticide practices already significantly reduce emissions in crop protection, the team is now also intensifying efforts to lower the use of chemical fertilizers. A key part of Finca La Puebla's strategy is a strict circular approach, wherein coffee pulp is completely returned to the coffee fields. This practice is especially beneficial for new plantations, as it replenishes soil nutrients and enhances overall soil health. The added organic matter improves soil structure and increases nutrient availability for the coffee plants.



Fazenda da Lagoa, located in Santo Antonio do Amparo in Minas Gerais, Brazil, recognized early on that reducing chemical fertilizers not only contributes to mitigating climate change, but also represents considerable potential for reducing production costs. To accomplish this, Fazenda da Lagoa now employs two supplementary approaches: precision fertilization and the use of honey water via fertigation (a combination of fertilization and irrigation). The basis for ultra-precise fertilization involves an exact knowledge of the soil's nutrient supply, which Fazenda da Lagoa achieves through comprehensive soil analyses and satellite-based remote sensing. These precise soil fertility maps enable Fazenda da Lagoa to use GPS-based fertilizer spreaders to apply fertilizer only where there is an undersupply. Additionally, Fazenda da Lagoa integrates honey water, a nutrient-rich byproduct of the coffee-washing process, into their fertigation system. By using honey water to replace portions of chemical fertilizers, it is possible to return some of the nutrients removed from the fields back to the soil, thereby enhancing its fertility.



Kaweri Coffee Plantation (Kaweri) is the only large-scale coffee farm in Uganda, located about 200 km west of the capital, Kampala. Recently, Kaweri integrated the use of biochar to curb fertilizer levels, while also sequestering carbon. Biochar is produced when biomass is thermochemically converted under oxygen-limited conditions. In practical terms, this means that Kaweri pyrolyzes types of pruning wood and other types of organic matter - material that would usually be burned or go to waste - to produce char. The physical and chemical properties of this biochar can lead to an improvement in soil structure and thus to a better nutrient and water balance. Kaweri uses the biochar to produce carbonized compost, which is then spread on the coffee fields. While the improved soil and plant health leads to a reduced need for fertilizer, stable biochar also fixes carbon from the atmosphere in the soil.



LEARNING FOR **OUR GLOBAL SUPPLY CHAINS**

The journey towards environmental responsibility and agricultural innovation undertaken by Fazenda da Lagoa, Finca la Puebla and Kaweri is an ongoing effort with great success and a collective dedication to harmonizing the operations on our farms with nature. As demonstrated, the novel practices utilized at our three farms offer great potential for environmentally friendly and resilient coffee farming. The lessons learned motivate us to replicate innovative and climate-smart agricultural practices

throughout our global supply chains. By transferring these validated methods to other supply chains in our diverse coffee origins, we aim to scale up practices that offer social and environmental benefits to producers and ensure the long-term viability of coffee production. In doing so, we try to strike the often difficult-to-achieve balance between sustainability and productivity. This strategy not only enhances the sustainability of our operations but also supports the well-being of our farming communities.

Regularly conducting comprehensive assessments to evaluate our current practices and explore opportunities for further improvement also helps us align our efforts with UN Sustainable Development Goals.

Reference

¹IPCC (2022): Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, UK and New York, NY, USA. [Online]. Available at: https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-7/









CONTACT US!

Do you have any questions about the report or would like to get in touch with us? Please feel free to contact the project team: responsiblebusiness@nkg.coffee



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