

5 OUR COMMITMENT TO THE ENVIRONMENT



5.1 ENVIRONMENT APPROACH AT KCE

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Environmental management at KCE is directly determined by our corporate philosophy and strategies, which in turn are based on programmes such as Responsible Care (see section 2.6).

Also integrated into KCE’s environmental management is compliance with each country’s legislation, as well as the pacts and programmes of each region, such as the European Green Deal.

Finally, each KCE company incorporates the requirements derived from the internal commitments assumed with the local communities, as applicable, and those of any voluntarily adopted certifications, such as ISO 14001, EMAS or ISO 50001, depending on the company (see section 2.5).

Kao’s environmental management focuses on the activity itself, society and the environment, placing emphasis on the entire life cycle, from the inputs used, the processing technology, the energy consumed, the products manufactured, their sale and subsequent disposal.

5.2 ENVIRONMENTAL COMMITMENTS FOR 2030

In 2020¹, we established our ESG objectives for 2020-2030 :

Area	Indicator	Target value*	Base year
Decarbonisation	Reduction emissions scope 1+2 CO ₂ , absolute	55%	2017
Energy	Renewable electricity purchased	100%	-
	Energy consumption reduction	1%	Previous year
Zero waste	Ratio to landfill and to incineration	<1%	-
Water conservation	Water consumption reduction	45%	2005
Resources	Acquisition of certified palm oil according to RSPO	100% ²	-

* The target value is to be achieved by 2030, using a specific (base) year as a starting point for each indicator, except for those that do not specify one.

¹ In 2021, the decarbonisation target was modified in a more ambitious direction than initially set.

² Target to be achieved by 2025.



5.3 MAIN ENVIRONMENTAL RISKS THAT AFFECT THE ORGANIZATION

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Kao has identified the main risks that could negatively affect the Group's sustainable and profitable development. KCE has prioritised those with the greatest impact in the context of its activity and its environment and has established its own management and monitoring plan (see section 2.7.1). These include the environmental risks associated with climate change, for which we distinguish between physical and transition risks.

These risks include the possibility of suspending operations due to extreme weather events, increased costs due to tighter regulations, resource depletion, environmental pollution, water supply security and loss of biodiversity (see section 5.4).

Another line of work that allows KCE to determine environmental risks is related to the performance of double materiality analyses, as previously described. Consequently, KCE has a clear understanding of which environmental issues to prioritize.

The following sections describe the main focus for each area of environmental management, as well as the indicators that determine their degree of performance. There are two types of indicators:



Those that indicate the total annual absolute value -consumption, production, emission or generation- in the area considered; for example, annual water consumption expressed in m³. They are calculated as the sum of the absolute value of each KCE company.



Those that indicate the relationship between this absolute value and the object of the activity (production expressed in tons), that is, the ratio or rate, such as the cubic meters of water consumed per unit produced (m³/t). They are calculated as the sum of the total annual absolute value of each company and the annual reference value representing the activity (sum of the productions of each company), meaning the ratios from all previous years have been recalculated.

5.4 CLIMATE CHANGE

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Climate change caused by global warming affects people's lives and the natural environment in various ways. Impacts are observed in glaciers, sea level rise, floods, droughts and other extreme weather events, which have consequences for marine and terrestrial ecosystems, and affect food production and people's health. Climate change has been identified as a material topic.

At present, each KCE company has an environmental policy that reflects its own commitments in this respect. However, the "KCE ENVIRONMENTAL POLICY", currently in development, will be common to all of them.

In turn, each of KCE's companies has established environmental targets regarding climate change mitigation and energy, which derive directly from the group. In addition, the group is developing targets related to adaptation, especially for those companies located in areas at risk of water scarcity.

The following are the metrics and indicators that show KCE's compliance with climate change targets (see section 5.6.1 for energy).



5.4.1 CLIMATE CHANGE MITIGATION

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KCE tracks Scope 1, 2 and 3 CO₂ emissions, as shown below:

KCE	2022	2023	2024
Total direct GHG emissions (scope 1) (t CO _{2e})	72,330	57,729	54,913
Scope 1 emissions / production (kg CO _{2e} /t)	203.58	176.66	158.71
Total indirect GHG emissions (scope 2) (t CO _{2e})	5,075	3,974	1,255
Scope 2 emissions / production (kg CO _{2e} /t)	14.28	12.16	3.63
Other indirect GHG emissions (scope 3) (t CO _{2e})	16,831	21,630	842,718
Scope 3 emissions / production (kg CO _{2e} /t)	47.37	66.16	2,435.68
Total GHG emissions (t CO _{2e})	94,236	83,364	898.886
Total GHG emissions / production (kg CO _{2e} /t)	265.24	254.97	2,598.02

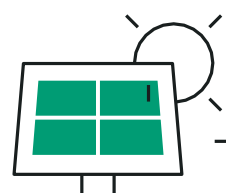
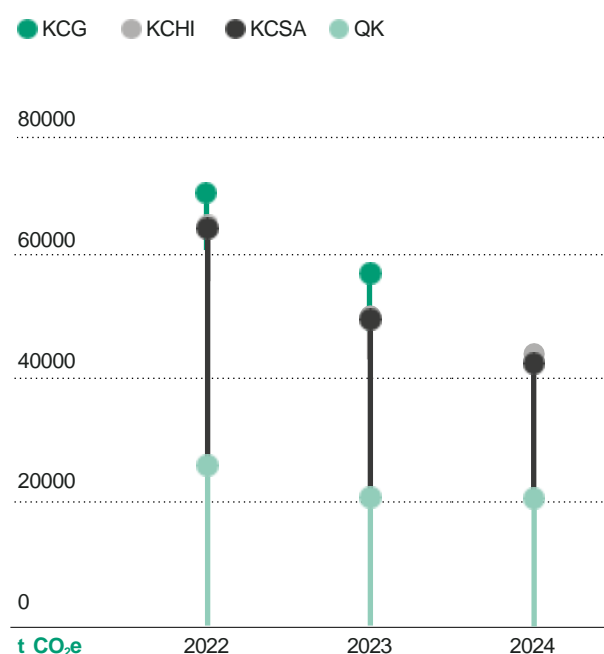
CO₂ emissions (scope 1 and 2) have decreased by 40.9% (38,866 t) compared to 2017, the base year for this indicator. Scope 3 emissions have increased due to the inclusion of categories that had not been reported to date. The information regarding each of the scopes is detailed below.

SCOPE 1 EMISSIONS

There is a decrease compared to the previous year, mainly due to the shutdown of the cogeneration plant at KCSA's Olesa de Monserrat facility in 2023, as well as the decrease in QK's natural gas consumption, as the cogeneration plant did not operate in 2024.

While Scope 1 emissions, except at KCSA, have increased, this is not the case for the ratio. The only company with an increased ratio is KCHI; this is due to the introduction of emissions related to company vehicles. It should be noted that KCHI's emissions are of little relevance compared to the rest of the companies.

**DIRECT GHG EMISSIONS (SCOPE 1)
BY KCE COMPANIES**



SCOPE 2 EMISSIONS

Scope 2 emissions have also been reduced, as has the ratio per ton of production, as QK has made progress in the gradual process of purchasing green energy (77% in 2024, 100% planned for 2025), 100% of the remaining subsidiaries' electricity is from renewable sources.

In 2024, KCSA signed a contract with ENGIE to supply steam from the biomass boiler that the company built at the Olesa de Montserrat facility.

SCOPE 3 EMISSIONS

Unlike Scopes 1 and 2, Scope 3 emissions show a very significant increase with respect to the previous year, which is mainly due to the fact that this report includes heretofore unquantified emissions, such as those associated with the purchase of materials.

The following table details the scope 3 emissions considered. It should be noted that the attached annex includes a breakdown of the subsidiaries that report in each of the categories.

KCE	2022	2023	2024
1. Purchased goods and services	-	683,121	808,539
4. Upstream transportation and distribution	5,749	4,872	11,575
5. Waste generated in operations	-	114	1,832
6. Business travel	-	291	238
7. Employee commuting	-	853	864
9. Downstream transportation and distribution	11,082	15,500	19,669

In the coming years, they are expected to continue to increase due to the quantification of indirect emission sources, which are not currently included.



5.4.2 MITIGATION ACTIONS

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We are committed to the goal of zero CO₂ emissions by 2040 and being carbon negative by 2050.

In our commitment to help mitigate climate change, each KCE company has drawn up a decarbonisation plan that corresponds to the objectives established in the short, medium and long term.

Each plan includes a large number of measures, some of which are already established, such as the purchase of electricity from renewable sources, the installation of photovoltaic panels, the replacement or shutdown of facilities that use fossil fuels (natural gas) and the replacement of technology used in lighting fixtures with LEDs.

In the same vein, since 2006, the group has implemented *Internal Carbon Pricing* (ICP), a system aimed at prioritizing investments in more efficient technologies with low CO₂ emissions, as well as in climate-resilient activities.

In parallel, the group is intensifying actions to reduce emissions, both direct and indirect emissions, which include:

- **In the procurement of raw materials:** these incorporate green purchasing concepts and specific at the different subsidiaries.

- **In the product development process:** these ensure compliance with the environmental standards described in the design guidelines.
- **In the manufacturing process:** these include initiatives to reduce energy consumption by introducing more efficient equipment and eliminating energy loss points, We also promote the use of cleaner energy, more environmentally friendly refrigerants and maintain equipment to prevent leakage of refrigerants and other greenhouse gases. The selection of air conditioning and refrigeration equipment is made according to criteria defined by the group, which consider the environmental impact of the refrigerant. In addition, we have a defined plan for the progressive replacement of equipment using refrigerant gases with the highest impact, in line with the Kigali Amendment to the Montreal Protocol.
- **In the distribution process:** by increasing shipment volumes, these promote cleaner freight methods and the improvement of cargo ratios.

5.4.3 ACTIONS FOR ADAPTATION

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The group has launched efforts aimed at adapting to climate change, by first identifying facilities located in areas at risk of water scarcity or that are highly likely to suffer extreme weather events.

In 2024, KCE identified and assessed the physical and transitional risks associated with climate change affecting each subsidiary.

Physical risks are those arising from an increased number of extreme events and changing climatic conditions, while risks associated with the transition to a carbon neutral economy are related to regulatory, technological, reputational and market changes.

The process was carried out based on the recommendations of the TCFD¹, the adaptation criteria of the European Taxonomy, the collaboration of the Marsh Company and the vision of each of the subsidiaries.

¹Task force on Climate-related Financial Disclosures (TCFD)

Specific findings for physical hazards

SHORT TERM (2024)	Physical risks due to climatic events are mitigated with insurance, while other chronic risks related to droughts have a major impact.
MID TERM (2030)	The most relevant physical risks are the same—droughts, water stress and change in average temperatures—but their probability and/or impact increases.
LONG TERM(2050)	Droughts will the main risk to the business as water availability is affected. In addition, water stress will increase, causing the company to invest and change its operations. Costs due to temperature rises will continue to grow but will not remain very relevant.

Thus, KCE has completed the risk identification and assessment phase and will begin planning adaptation solutions, which will incorporate the actions already underway, and together they should lead to a reduction of the identified risks.

Some of the solutions already underway include:

- KCE reports monthly volumes of the different existing water supplies. The group's objective, by 2024, was to establish a plan to achieve a reduction in water use over the entire lifecycle per unit of sales, especially in water-scarce regions, with 2017 as the base year. This reduction target is expected to be defined by the group in 2025.
- KCE promotes the installation of solar panels that generate electricity for its own use, reducing dependence on external supply while increasing the company's resilience in case of need.

PHOTOVOLTAIC CAPACITY

QK



499 kWp

KCHI (Rubí)



185.33 kWp

KCSA (Olesa)



97 kWp

5.5 POLLUTION PREVENTION

3-3

Pollution prevention has also been identified as a **material topic**.

At present, each KCE company has an environmental policy that reflects its own commitments in this respect. However, in order to ensure explicit mention of each of the material topics and subtopics, the "KCE ENVIRONMENTAL POLICY" is being developed, which will be common to all of them.

It should be noted that KCE carries out multiple actions to prevent air, soil and water pollution in the areas near the production plants, in addition to reducing the pollutant load of the wastewater it generates.

5.5.1 AIR POLLUTION PREVENTION

3-3

KCE's main commitments focus on strict compliance with specific laws and regulations and the development of the principle of pollution prevention. This involves, among other actions, the gradual introduction of best available techniques, the modification of processes in favour of emission reduction and their exhaustive monitoring.

KCE publishes emission data from KCG, QK and KCSA as part of the *Pollutant Release and Transfer Registers (PRTR)*.

AIR EMISSIONS

305-7

KCE carries out quantified monitoring of CO, NO_x, CH₄, HFCs, PFCs, NF₃, SF₆, PM and VOC emissions, the results of which can be consulted at the end of the report.

These include the reduction of pollutant generation at the source, the application of good practices in the operation of the facilities, and the use of the best available techniques to combat pollution.

However, these actions are often not conceptualized as objectives, so work is underway to define them for future years.

The following are the metrics and indicators that show KCE's level of performance in terms of pollution prevention.

This monitoring shows that in 2024 emissions from combustion gases (CO, NO_x and SO₂) declined due to the decrease in natural gas consumption, derived from the definitive shutdown of KCSA's cogeneration (in 2023 it was operational for 5 months) and the temporary shutdown of QK's cogeneration.

In terms of particulate emissions, KCSA and QK report the highest emissions. The increase observed is basically due to higher production. HFC emissions correspond to KCSA and QK, with QK being the main contributor this year.

As in previous years, VOC emissions are reported by all group companies except KCG. Among the reporting companies, only KCHI reports diffuse emissions, which are significant due to the handling of volatile solvents involved in its activity. KCSA and QK report only channelled VOC emissions, which are minimal compared to those reported by KCHI (whose emissions rose in 2024). It should be noted that KCHI has continued to implement actions to minimize diffuse emissions. The increase of 12.1 tons over the previous year is primarily due to 2 aspects:

- An increase in the production of solvents
- A delay in the removal of waste due to unavailability of dates by the managers; this led to the removal of 10 tons of solvent in January, which would detracted from the overall VOC count.



5.5.2 WATER POLLUTION PREVENTION

The amount of pollutants released into the water is regulated by each country. KCE has wastewater treatment facilities at most of its production centres, except at KCG, where it is treated externally, and at KCSA Barberà and KCHI, where wastewater is comparable to urban wastewater.

KCG does not need an additional on-site wastewater treatment plant, as its wastewater is discharged directly into the local sewage treatment plant, because KCG's wastewater meets local requirements. KCG is not required to have its own wastewater treatment plant.

DISCHARGE DATA

303-4

KCE monitors wastewater including the amount of water discharged, the mass load of TOC, SS, N and P, as well as their respective ratios to final production, as shown in the tables at the end of the report.

The amount of water discharged by KCE in 2024 increased significantly, by just over 41.7 thousands m³. The ratio per ton produced has also increased with respect to the previous year.

KCSA and QK are the main contributors to this increase. In the case of KCSA, the most notable increase occurred at the Mollet facility, caused by the variation in the production mix. In the case of QK, the increase is attributable to the procurement of more regenerated water from the government treatment plant, which must be osmosed and involves the generation of rejects from this type of facility. Additionally, all companies have decreased their respective water consumption, except QK and KCHI.

The TOC¹ pollution load has increased by approx. 30 tons compared to the previous year. KCG has mainly contributed to the increase and is due to the start-up of the new production plant TAP 3. The largest reduction occurred at QK and KCSA.

Pollution load per ton produced increased by 7.7%, which is commonplace when consumption drops, production rises, and optimised purification treatments are maintained. Other factors that explain this increase concern the start-up of production plants and the production mix, since shorter production runs and more frequent product changes lead to increased cleaning.

The only parameter that decreases at KCE and the affiliates is suspended matter. Nitrogen and phosphorus decrease in KCSA, but increased at the remaining companies.

Wastewater is discharged into the municipal sewage system after treatment. In addition, since our business involves the use of chemicals, groundwater is monitored at most of our production sites.

The possible presence of nanomaterials, PFAS, SoCs or micropollutants is currently under examination and consideration.



5.5.3 OTHER FORMS OF POLLUTION

PREVENTION OF NOISE AND LIGHT POLLUTION

Noise levels outside KCE's production centres are periodically monitored to verify noise levels. The goal is to ensure that these are within the legal limit or to detect an increase in environmental noise and, consequently, to adopt preventive or corrective measures as soon as possible. In general, emission levels - the level of noise emitted to the outside- are usual for this type of activity and the established limits are not exceeded.

In relation to light pollution, the regulatory requirements are met.

¹ In relation to the pollutant load of wastewater, the representative parameter is total organic carbon (TOC), which is expressed as one third of the chemical oxygen demand (COD).

5.6 USE OF RESOURCES AND CIRCULAR ECONOMY

The use of resources and circular economy has also been identified as a **material topic**.

In 2024, KCE has approved the "RESPONSIBLE MANAGEMENT OF CHEMICALS POLICY" which reflects its commitment to chemical management. In addition, KCSA also updated its "Biodiversity Policy" in 2024, incorporating a clear commitment to halt and reverse biodiversity loss, and focusing, among other aspects, on SDG 15 "Life of terrestrial ecosystems", and on the identification and assessment of impacts and dependencies of the company's activities on biodiversity.

In future years, with the deployment of these policies, the establishment of new environmental objectives in addition to those that have already existed for years, such as the RSPO, as described below (see section 5.6.1. should be considered,

Certainly, at KCE we are making progress in the development of an increasingly circular production model. To achieve this, we apply process improvements that have a direct impact on the reduction of waste and the consumption of raw materials.

5.6.1 RESPONSIBLE CONSUMPTION AND PRODUCTION OF MATERIALS

301-1

Potential impacts to consider in the raw material procurement process include destruction of the local environment and loss of biodiversity, human rights, health and safety management, and health risks in the supply chain.

We also made progress in the design of more environmentally friendly products through the use of less hazardous or recycled raw materials, the reuse of packaging and eco-design.

In 2021, a team was created to implement lifecycle analysis and calculate the carbon footprint of KCE's products; in 2022, the carbon footprint of 25 products was calculated; and in 2023, following the progression, the methodology was improved according to the European standards most widely accepted by the chemical industry. External certification of the methodology was obtained, which guarantees its robustness based on current knowledge.

In 2024, all families or aroma chemicals and surfactants produced at KCE were modeled in the GABI-SPHERA software. From these models, the carbon footprint value of each product produced at KCE can be easily obtained by following the certified methodology and creating a report to communicate the result to customers on demand. For the calculations, carbon footprint data of raw materials from suppliers was collected. In cases where such values were not obtained, databases were used. All of these raw material carbon footprint values have, in turn, been included in the calculation of our Scope 3 (see section 5.4).

The following sections detail the metrics and indicators that show the level of KCE's performance in terms of resource use and circular economy,

The procurement of materials takes into consideration the quantities, format and source of supply. In 2024, 272M tons were consumed and 346M tons were produced, resulting in a 23% increase in the ratio of raw materials to final production (t/t), as shown in the following table.

RAW MATERIAL USAGE DATA

KCE	2022	2023	2024
Raw materials (t)	270,063	236,793	272,246
Production (t/t)	355,286	326,951 ¹	345,989
Raw materials / Production (t/t)	0.69	0.62	0.77

¹ An error has been detected in the number submitted in the previous year, in which 325,871 was declared instead of 326,951.

TRANSITION TO IMPROVE THE USE OF RESOURCES AND CIRCULAR ECONOMY

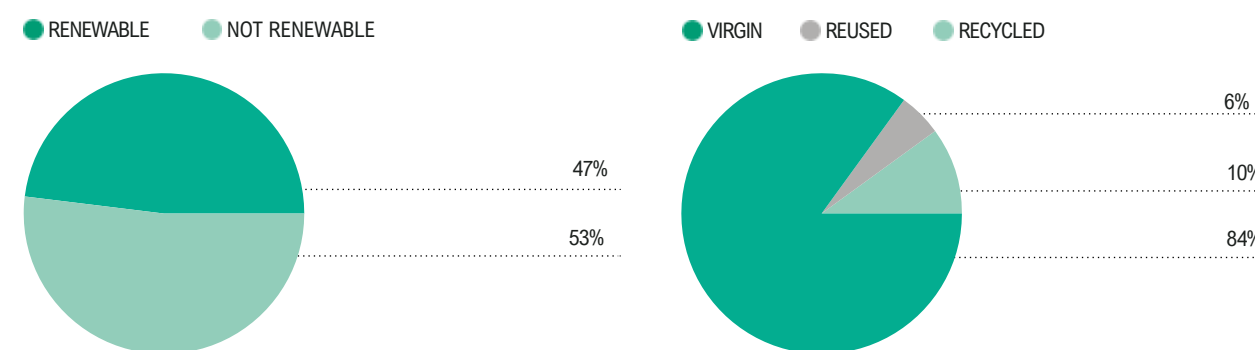
KCE's activities involve the use of resources that, to a greater or lesser extent, could impact biodiversity and ecosystems, either positively or negatively.

To reduce the environmental impact of our resource use, KCE intends to develop a transition plan to improve such use and contribute to a circular economy. By doing so, we will gradually minimize the extraction of non-renewable resources and further prevent waste generation and reduce pollution.

In 2023, a process was initiated to identify the inflows considered material and their classification, in order to learn more about biodiversity dependencies and to be able to initiate a risk and opportunity analysis as the next step.

This study was carried out again in 2024 and, as a result, 71% of KCE's inputs were classified. Of these, 47% were found to be renewable and 53% non-renewable. It was also found that 84% of the materials used are virgin, 10% are recycled and 6% are reused.

The variations with respect to the previous year are minimal. The table at the end of the document expands on the above data.



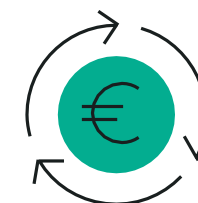
Deforestation, RSPO

Kao is committed to supporting the reducing of forest destruction and achieving zero deforestation, through the fulfillment of two projects related to the consumption of sustainable materials: palm oil and wood derivatives, paper and pulp. In 2020 Kao established initiatives for the procurement and sourcing of sustainable palm oil², setting a series of priority activities aimed at procuring 100% RSPO certified oil by 2025.

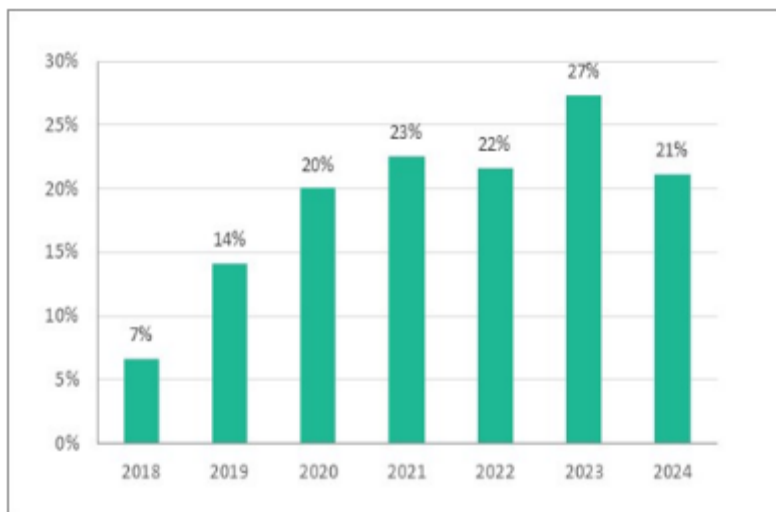
PERCENTAGE OF RSPO-CERTIFIED PALM-DERIVED RAW MATERIALS IN THE PERIOD 2022-2024

	KCG	QK	KCSA	TOTAL KCE
2022	20.8%	12.0%	30.9%	21.6%
2023	25.3%	34.8%	31.9%	27.3%
2024	17.3%	89.8%	16.2%	21.1%

²<https://www.kao.com/global/en/sustainability/we/procurement/procurement-supply-chain/>



EVOLUTION OF RSPO RAW MATERIAL CONSUMPTION



At KCE, we are advancing the development of technologies that use natural, non-edible oil sources as alternatives to palm oil and we use sustainable palm oil in the production of our products. All KCE subsidiaries have obtained RSPO certification with the exception of KCHI, which does not use palm oil in its processes.

At KCE we are committed to supplying our products, based on palm oil or derivatives, using sustainable raw materials, if required by the customer. Similarly, we also supply our products using NDPE (Non-Deforestation, Non-Peat and Non-Exploitation) raw materials.

In 2024, there was a decrease in the consumption of sustainable palm oil-based raw materials globally by KCE. However, at QK there was a very significant increase, due to demand from the cosmetics and household hygiene consumer markets. KCG and KCSA show a significant decrease due to declining demand attributable to the global economic situation and the introduction of the "Book & Claim" supply model (RSPO credits) by some customers.

In terms of governance, Kao established the goal of ensuring the ability to trace raw materials to their origin and make the supply chain visible, especially for palm oil. KCE is considering establishing the same objective in its own supply chain.

In relation to the EUDR (2023/1115), KCE is identifying needs and possible actions to be taken.

KCE is constantly examining renewable raw materials to replace petroleum derivatives, as part of the measures adopted under the group's decarbonisation plan. One initiative undertaken in recent years is to offer products with a higher Bio content, and as mentioned in chapter 2.5, we have obtained ISCC certification, which allows us to offer Bio products under the mass balance scheme.

In 2023, KCE published a statement on conflict minerals on its website¹. Although the company is not a direct importer of these minerals and therefore has no obligations under EU Regulation 2017/821, we consider it our responsibility to verify the origin of all our raw materials.

Given the nature of our business activities, KCE's exposure to conflict minerals is indirect and very limited. However, we may potentially be exposed to these minerals through the use of catalysts in the manufacture of some of our products. For this reason, we require all our suppliers to provide information on the use of conflict minerals through the CRC (Certificate of Regulatory Compliance) document. In addition, where required, they must submit evidence of the CMRT (Conflict Minerals Reporting Template) report during the supplier approval process, in accordance with our internal protocols.

Annually, we request an updated CMRT report to ensure that all products supplied to KCE are free of conflict minerals.

In 2024, not a single supplier we work with uses minerals from conflict zones.

Kao will not engage with any supplier whose business does not meet the requirements of the above regulation and the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

¹ [kce-conflict-mineral-statement-2023.pdf \(kaochemicals-eu.com\)](#)

5.6.2 CHEMICALS MANAGEMENT

Chemical management process at KCE:

REGULATORY EVOLUTION OF CHEMICAL SUBSTANCE MANAGEMENT:

- Conduct detailed studies of all new products and raw materials developed and used at KCE.
- Reassess priority substances for KCE, in accordance with regulatory requirements relating to the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

GENERATION AND UPDATING OF SAFETY DATA SHEETS:

- Generate the Safety Data Sheet (SDS) for all products produced by KCE. The function of the SDS is twofold: to inform all organization members internally of the hazardousness of the products produced at our facilities and to provide the information contained in the document of our products to the recipients. The SDS includes chemical product information, hazard identification, fire-fighting or accidental release measures, handling and storage information, toxicological and ecological information, transport information, regulatory information, and more.
- Whenever a chemical safety report is prepared for a substance, an annex with exposure scenarios for the identified uses will be included in the SDS.

Kao has had its Integrated Chemical Management System in place since 2017 and is applied in all its companies globally. KCE continuously strengthens its functionality in response to increasingly stringent regulatory requirements, growing diversity in handled chemicals and planned business expansion into new countries and business areas.

- The SDS is updated as new hazard information or new data that may affect risk management measures becomes available. The most recent version is provided to all internal and external customers to whom the product was supplied within the previous 12 months. Any updates are duly recorded.

MANAGING PRODUCT SAFETY THROUGHOUT THE CHEMICAL LIFECYCLE:

- Ensure the correct labelling of the products handled at our facilities based on the Global Harmonized System (GHS) from the moment they enter our facilities or are produced therein, until their shipment, either as products or as waste. We also ensure that all employees are made aware of the classification and labelling documentation (SDS and labels) for all our products.

COMMUNICATING CHEMICAL SUBSTANCE RISKS TO STAKEHOLDERS:

- Through public disclosure of the results of international chemical management activities and stakeholder communication.

Every chemical substance used or manufactured at KCE follows an exhaustive verification programme of European regulations and global standards to ensure its safety and proper use.

Verification is not only performed on the substance itself, but encompasses all known traces and impurities it may contain. This information is used to generate all the necessary documentation, both mandatory and voluntary, which is then circulated internally to provide better information and transparency to our customers.

At KCE, we closely monitor new regulations or modifications that may affect our products and activities:



PARTICIPATION IN ASSOCIATIONS

Our Product Safety team participates in 12 associations of different chemical products, both on a national and European level.



DATABASES

In addition to the public databases to which we subscribe (e.g. ECHA), we have two private international databases, RegDB (from Sphera) and Ariel (from 3E), which continuously collect any news on substance safety, chemicals and regulations.

In 2024, several substances were registered with ECHA and more were updated, while the volumes, applications, and requirements for the remaining substances that KCE has registered were monitored.

KCE's European team is responsible for the monitoring and obligations of the Kao Group, for both the products and raw materials we use. In particular, suppliers are asked to provide information on the REACH registration of raw materials through the CRC (Certificate of Regulatory Compliance) document.

In addition to complying with mandatory regulations, the company complies with other voluntary regulations linked to market trends or imposed by non-governmental organizations.

In this regard, in 2024, fragrance compositions were revised to adapt them to the 51st Amendment of the IFRA (International Fragrance Association). We also registered several products with ECOCERT and responded to the possibility of our products being Ecolabel certified when required.

Dissemination of regulatory and product safety concepts is fundamental for KCE. In 2024, the regulatory department participated in internal dissemination sessions with the relevant departments, as well as in monthly dissemination sessions on new regulatory developments affecting our products. In addition, the company participates in national and European events related to the registration of chemical substances (European Notification Panel), the regulation of biocides, the REACH regulation and green schemes, among others.

5.6.3 ENERGY

KCE promotes initiatives to reduce energy consumption and improve efficiency at all its production centres and facilities.

ENERGY CONSUMPTION

302-1 / 302-3 / 302-4

KCE	2022	2023	2024
Total energy consumption (MWh)	404,944	358,229(*)	356,507
Total energy consumption / Final production (MWh/t)	1.14	1.10 (*)	1.03
Electricity consumption (MWh)	82,645	79,649	84,668
Electricity consumption from renewable sources (%)	63.28	78.03 (*)	92.79
Electricity consumption / Final production (MWh/t)	0.23	0.24	0.24
Natural gas consumption (GJ)	1,278,508	1,057,192	919,475
Natural gas consumption / Final production (GJ/t)	3.60	3.23	2.66
Thermal consumption (MWh)	314,588	276,828(*)	270,274
Thermal consumption / Final production (MWh/t)	0.89	0.85(*)	0.78
Other energy consumption (MWh)	7,711	1,686	1,426

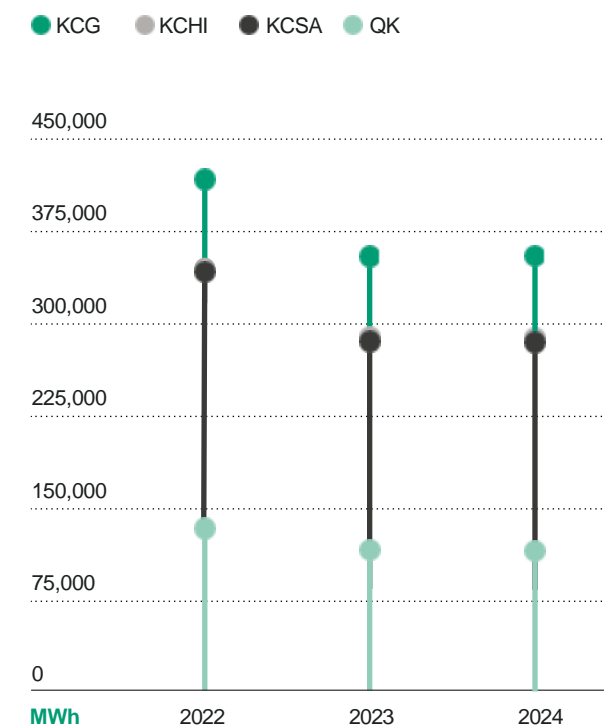
(*) Data corrected with respect to the 2023 version (an error was detected in the KCSA data entry),

KCE's overall energy consumption and the corresponding ratio declined with respect to 2023 due to the definitive shutdown of the cogeneration plant at KCSA and the cessation of operations at QK. Despite the start-up of new facilities, consumption and the ratio did not increase due to the energy efficiency actions undertaken. At QK, the energy related to the transport of water from the government water treatment plant decreased.

The percentage of electricity consumption from renewable sources increased by 23% as a result of the certification provided by QK's electricity supplier. Of note is the decrease in "other energy consumption", primarily at QK, due mainly to the decline in the use of fuel for vehicles.

Compared to the previous year, the base year for this indicator, the energy consumption ratio decreased by 6%. In 2024, 100% of the electrical energy consumed by KCG, KCSA and KCHI (except for a small office in KCHI France, which represents 0.3% of KCHI's consumption) came from renewable sources.

ENERGY CONSUMPTION BY SUBSIDIARIES



5.6.4 WATER

KCE establishes measures to promote the sustainable use of water and devotes efforts to the search for new technologies. The company focuses on reducing consumption; reducing, reusing and recycling wastewater; optimising maintenance work; and improving the management of wastewater treatment facilities.

Water management has been identified as a **material topic**. At present, each KCE company has an environmental policy that reflects its own commitments in this area. In addition, the "KCE ENVIRONMENTAL POLICY" is being developed, which will be common to all of them.

This policy will incorporate specific commitments for those companies located in areas at risk of water scarcity.

In turn, each KCE company has established environmental targets in relation to water consumption, which are derived directly from the group.

The following are the metrics and indicators that show the level of achievement of KCE's objectives and performance in terms of water.

KCE has established the goal of reducing water consumption by 45% by 2030, in line with the Kao Group's target.

WATER WITHDRAWAL

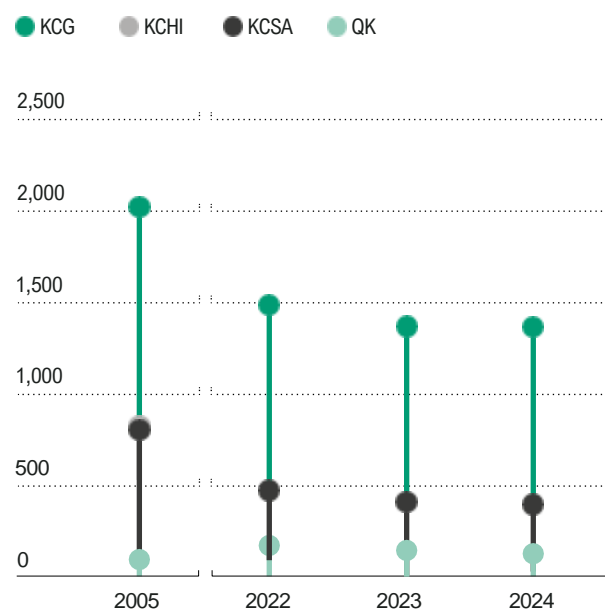
303-3

KCE gets its water from three different sources, the primary source being groundwater withdrawal. The company extracts the largest amount of groundwater for use at open circuit for cooling facilities, which is ultimately returned to the Rhine River. Some KCE facilities have their own duly authorised and controlled wells for the withdrawal of water. QK uses water from a municipal treatment plant that is treated before use, as one of the measures established to improve circularity in water management.

Water extraction increased by 4,311 m³ with respect to 2023, but the extraction rate per ton produced felt relative to the previous year (5%), a fact that illustrates greater efficiency in the use of this resource; even more so if we take into account the new production plants in operation.

Compared to 2005, the base year for this indicator, the water withdrawal rate decreased by 39%.

WATER WITHDRAWAL BY SUBSIDIARY



WATER CONSUMPTION

303-5

Water consumption is calculated as the difference between water withdrawal and discharge.

Water consumption at KCE decreased compared to last year by 25,962 m³, and the ratio by 17%. The reduction in water consumption is attributable to KCSA which saw the most significant reduction in terms of ratio.

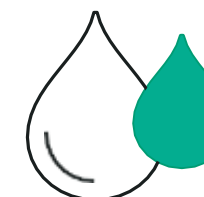
KCSA is located in Catalonia, a region of Spain that has been experiencing a severe drought since 2023, which has led to the adoption of measures to minimize water consumption.

It is worth highlighting water consumption independent of production, e.g. for cooling or heating of storage tanks or for sanitary use. should be highlighted, The lower the total consumption, the greater the influence of this base consumption on the water consumption rate.

On the other hand, temperature changes, as well as extreme conditions, also have an influence in this area.

Compared to 2005, the base year for this indicator, the water consumption rate has decreased by 60%.

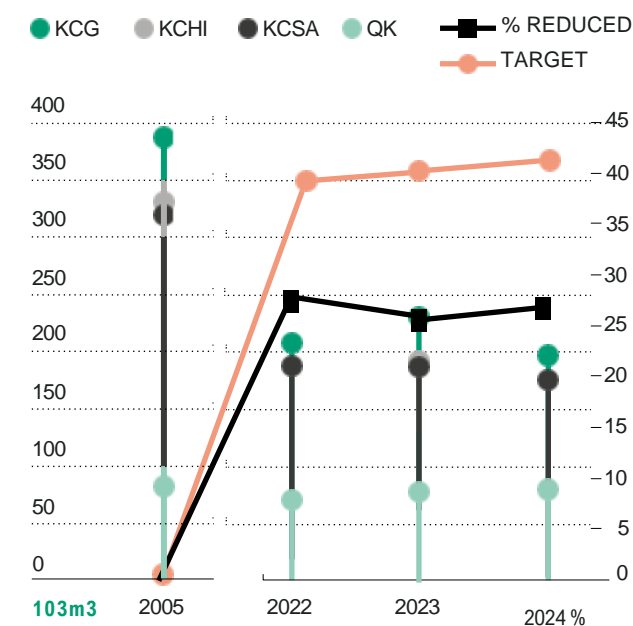
WATER CONSUMPTION



210,490 m³ 2023

184,528 m³ 2024

WATER CONSUMPTION PER SUBSIDIARY



5.6.5
WASTE

KCE implements measures aimed at more circular management. Among other actions, progress underway on improving the performance of production processes, reducing and reusing packaging, and ending the status of waste, thanks to the commercialization of these substances as products.

Waste management is included in the section on the circular economy and resource management, which has been identified as a **material topic**.

At present, each KCE company has an environmental policy that reflects its own commitments in this area. However, the "KCE ENVIRONMENTAL POLICY" currently in development, which will apply to all of them.

In turn, each of the KCE companies has established environmental targets for waste generation and disposal, which are derived directly from the group.

In this regard, a target has been set for 2030 for industrial waste destined for landfill or incineration to be less than 1%.

Metrics and indicators that show the level of achievement of KCE's objectives and performance in terms of waste are detailed in the appendix.

The amount of waste generated, indicated in the table in the appendix, excludes construction waste, which is generated on an ad hoc basis.

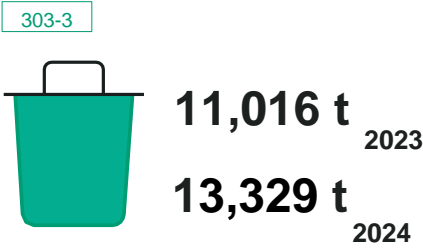
The amount of waste generated increased compared to the previous year by 2,310 tons. While QK and KCHI managed to decrease both waste generation and rate, both increased at KCG and KCSA. This is because both companies started up new production plants (TAP 3 and MDJ-2, respectively).

The company that generates the most waste is KCSA, which has increased production of the products that generate the most waste.

The start-up of the TAP 3 and MDJ-2 plants masks the minimization actions being carried out to reduce waste.

The degree of waste recovery -including energy recovery- increased with respect to the previous year and, for the third consecutive year, remained above 70%.

WASTE GENERATED



ACTIONS TO REDUCE FOOD WASTE

KCSA in Barberà del Vallès and QK dining facilities onsite, where food quantities are adjusted to avoid food waste.

At KCSA, the company that prepares the food maintains the "Stop food waste program", which minimises food waste throughout the chain; the waste generated is measured daily and awareness actions (training of both kitchen staff and diners) regarding food waste prevention are offered.



5.7
BIODIVERSITY

Biodiversity is an issue of particular importance because of the impact of KCE's activities on the extent and condition of ecosystems.

In 2024, KCE approved the "RESPONSIBLE MANAGEMENT OF CHEMICALS POLICY" which reflects its commitments regarding chemicals management. In addition, KCSA also updated its "Biodiversity Policy" in 2024, incorporating a clear commitment to halt and reverse biodiversity loss, and focus, among other aspects, on SDG 15 "Life of terrestrial ecosystems", and on the identification and assessment of impacts and dependencies of the company's activities on biodiversity.

In addition to what is indicated in section 5.6 regarding the circularity objectives, it should be noted that KCE has advocated for the protection and promotion of biodiversity at its own establishments and surrounding locations since 2018.

The following are the metrics and indicators that show the level of KCE's performance in terms of biodiversity conservation within the framework of the Responsible Care® programme.

Kao has implemented a methodology based on the land use standard developed by the Japan Business Initiative for Biodiversity (JBIB) to better understand the status of biodiversity and assess conservation progress at all of its sites worldwide.

- To do this, a self-assessment questionnaire on biodiversity addresses the following concepts:
- Biodiversity management
 - Response to exotic species
 - Circulation of matter
 - Water circulation
 - Biological monitoring
 - Employee participation
 - Cooperation with external parties
 - Other

The score obtained by KCE in 2024 is as follows:

KCE	2022	2023	2024
KCG	236	236	236
QK	290	290	290
KCHI	405	385	415
KCSA			
Olesa	595	595	595
Mollet	386	391	391
Barberà	535	555	555

KCE's production sites are located in industrial parks and three of which are close to areas of natural interest, Although they are not affected by current activity, a disaster could partially affect them.

All KCE production sites are built according to legal regulations with due monitoring and control of all identified environmental aspects, particularly, those of greater significance.

In order to respond to a possible catastrophic situation, each KCE site has a self-protection plan that covers accident scenarios and establishes the corresponding action procedures according to the means available.

LOCATION OF THE CENTERS WITH INDICATIONS OF NEARBY AREAS OF NATURAL INTEREST AND PROXIMITY TO BODIES OF WATER

Company	Natural resource	Body of water
KCG	DE4203401: Vogelschutzgebiet 'Unter niederrhein' – Protected bird area	Rhine River (approx. 300 m)
	DE4103301: Dornicksche Ward - bird sanctuaryand	
	DE4405301: Rhein-Fischschutzzonen zwischen Emmerich und Bad Honnef - protected fishing area	
QK	-	Santiago River (approx. 150)
KCHI	-	-
KCSA		
	Olesa de Montserrat ES5110012: Montserrat-Roques Blanques-Rio Llobregat	Llobregat River (approx. 70 m)
	Mollet del Vallès ES5110025: Congost River	Besòs River (approx. 200 m)

BIODIVERSITY INDICATORS AND THEIR EVOLUTION

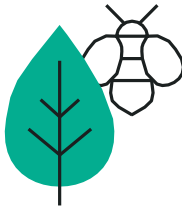
KCE	2022	2023	2024
Land occupancy (%)	42.26	42.00	42.93
Total land use (m2)	188,664	184,922	189,856
Total sealed area (m2)	261,265	257,523	263,577
Surface permeability (sealed surface/established surface) (%)	58.52	58.49	59.59
Total area in the centre oriented according to nature (m2)	90,858	88,454	88,348
Internal occupancy biodiversity (internal area oriented to nature / establishment area) (%)	20.35	20.09	19.98
Total area outside the centre oriented according to nature (m2)	24,874	24,874(*)	24,874
Biodiversity external occupancy (external area oriented to nature / establishment area) (%)	5.57	5.65	5.62

(*) Data corrected with respect to the 2023 version (typographical error),

INITIATIVES FOR THE PRESERVATION OF BIODIVERSITY:

In 2024, the following actions were carried out:

- At KCSA, the year was dedicated to the Fungi kingdom, through the development of different activities, such as conferences, a mushroom recipe contest, a contest to demonstrate knowledge of the Fungi kingdom, various posters and a cultivation workshop. The nest boxes and insect hotels installed in 2020 and 2021 were monitored, and certified organic fertilizers were used. The year ended with a new edition of the Biodiversity policy.
- This FY at KCHI, the questionnaire was revised, prompting the modification of certain answers, in accordance with some of the measures carried out during the year:
 - Installation of new permeable pavement at the entrance of CF (Central Factory), which allows for the proper drainage of rainwater.
 - Planting of native plants throughout the FC entrance area.
 - Activity carried out by workers to get to know the environment (flora and fauna) at KCHI's main centre in Rubí.
 - The use of non-aggressive pesticides in all cases (maintenance of green areas/pest control).
- Different plant species were planted at the KCE centres.



5.8
LEGAL COMPLIANCE

2-27 Compliance with laws and regulations

KCE is up-to-date with all its legal obligations in environmental matters, although in 2024 there were two sanctions, both at KCSA, with fines amounting to €18,297.

One was motivated by a defect in compliance with the Decret de Sequera (Drought Decree), specifically, for exceeding water consumption in the last quarter of 2023 at one of KCSA's facilities. The second was related to excess NOx in the emissions associated with RTO-2.