



**Our
commitment
to the
environment**

□ Management focus

The main goals of the Ebro Group's environmental commitment are defined in our Policy on Sustainability, Environment and Corporate Social Responsibility: "Steer the company's processes, activities and decisions to protect our environment, prevent and minimise environmental impact, optimise the use of natural resources and preserve biodiversity."

According to this declaration, the Group's actions are based on the following:

1. Ensure that our companies comply with the environmental laws applicable to their respective activities by implementing internal management systems and monitoring the applicable laws and regulations.
2. Minimise the environmental impact of our activity by seeking eco-friendly solutions and embarking on initiatives to reduce our emissions, optimising our consumption of water, energy and packaging material.
3. Transition towards a circular economy, recovering waste and favouring its recycling and reuse, using recycled raw materials and/or those respectful of the environment, whenever possible.
4. Organise environmental awareness and training programmes for Group employees.
5. Promote the use of sustainable crop techniques among our agricultural suppliers.

With regard to our operations, the processes used at Ebro Group's production plants in both the rice and pasta divisions are relatively simple agri-food processes that do not generate any major environmental impacts and entail a minimal risk of accidental pollution. The most significant environmental risks relating to the Ebro Group can be classified as follows:

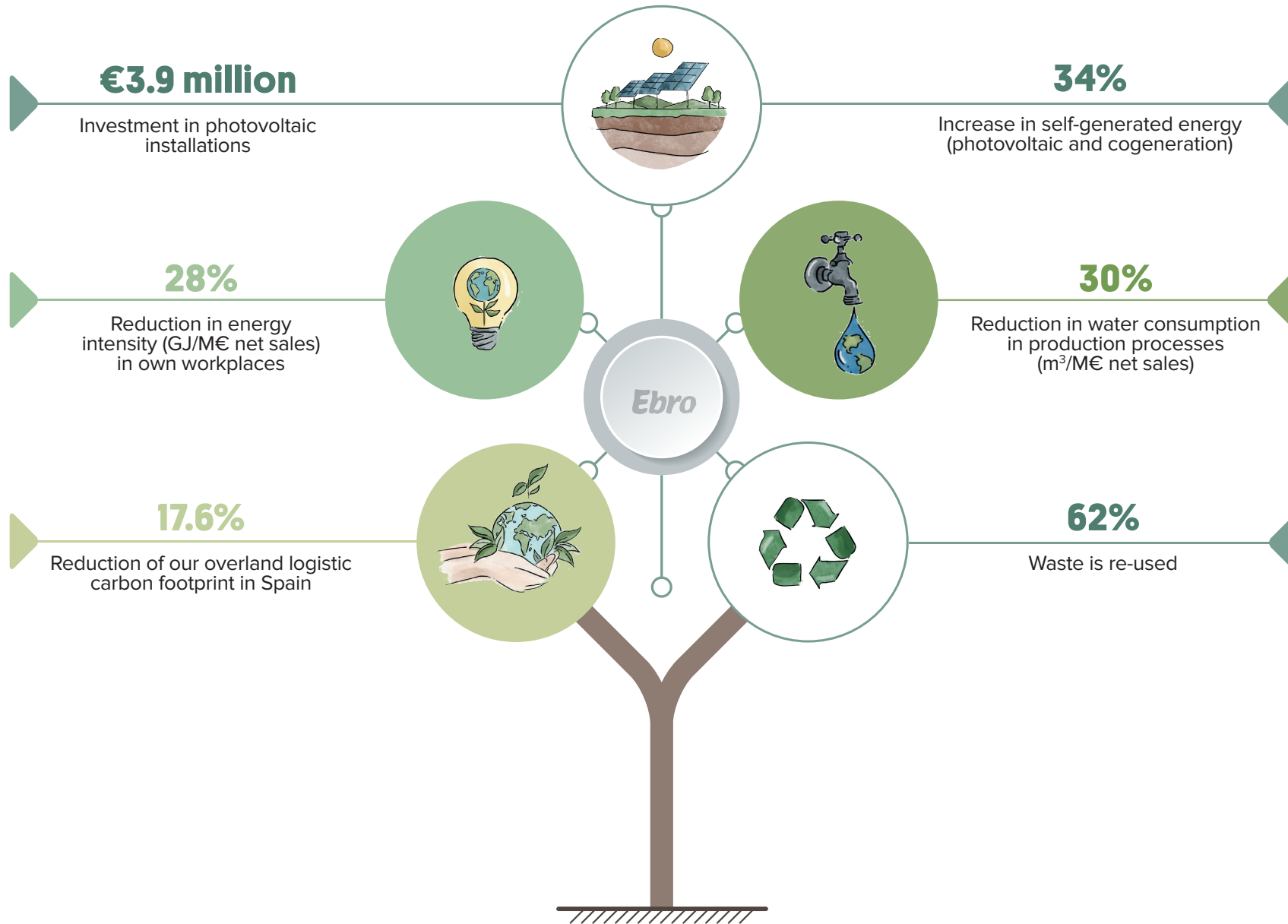
1. **Air emissions:** Mainly emissions of particles during the handling of cereals and greenhouse gas (GHG) emissions related to the consumption of fossil fuels and electricity. The most widely used fuel is natural gas.
2. **Noise emissions:** These emissions are produced during the operation of engines, compressors, sleeve filters and other manufacturing equipment. All our plants comply with the environmental standards and the noise levels are monitored regularly, taking mitigation measures wherever necessary.
3. **Production processes:** Essentially mechanical and hydrothermal, requiring the use of very few chemical products and in very small quantities. Most of these products are used to clean the equipment and cleanse the raw materials and are relatively harmless for the environment.

4. **Water consumption:** The amount of water used in our processes is negligible (the vast majority of our products are dry) so the volume of effluent generated is also small. Moreover, the little effluent produced has a low level of contamination since the water consumed is basically used to produce steam, for cooling or as an ingredient in the finished products.
5. **Waste generation and management:** The company generates minimal amounts of waste, both non-hazardous (mainly packaging of ingredients and ancillary materials) and hazardous (maintenance operations) and it is managed through authorised waste disposal contractors.

Precautionary principle

The guidelines on which the precautionary principle is based are set out in the Group's Code of Conduct and Policy on Sustainability, Environment and Corporate Social Responsibility. In both texts, Ebro Foods declares its firm commitment to respect the environment and preserve biodiversity. It also sees that its companies comply with the environmental laws applicable to their operations and any additional commitments assumed voluntarily, and applies environmental sustainability programmes in specific matters.

Environmental
performance indicators



□ Scope of Reporting

The information set out below corresponds to 73 of the 78 production plants and offices that the Ebro Group has through its different companies.

All the emission factors, low calorific values (LCV) and global warming effect used are set out in Annex 3.

□ Materials

This indicator is reported under standard GRI 301 (2016).

RAW MATERIALS

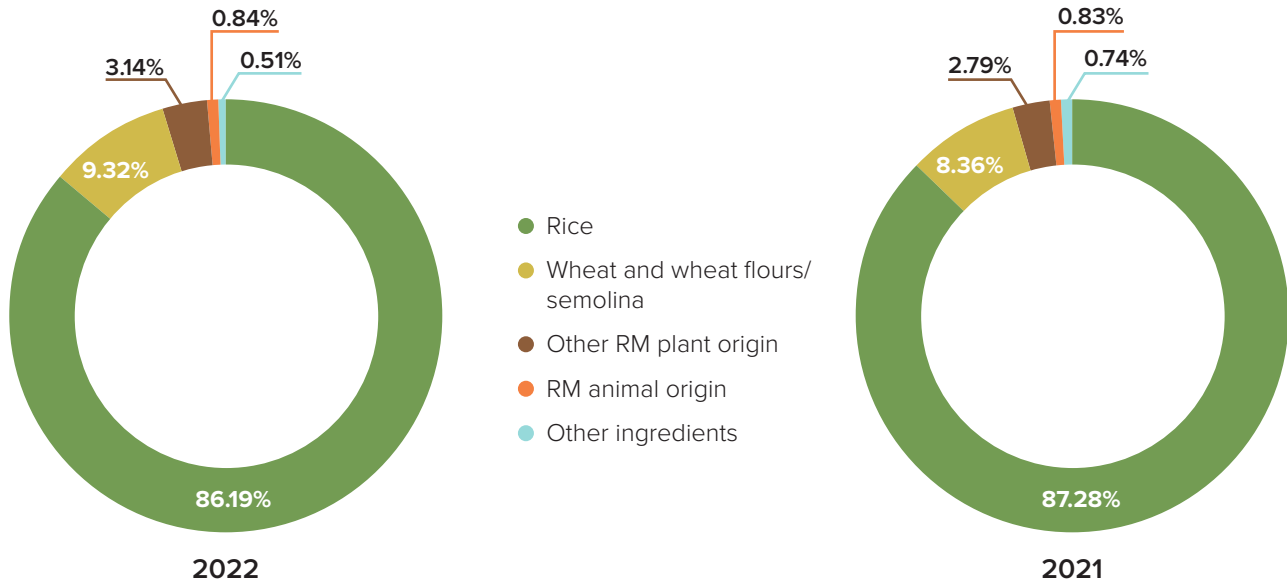
The raw materials used are divided into two major categories, those used in the preparation of finished goods and the packaging materials.

The raw materials used in finished goods are divided into five categories:

1. Rice
2. Durum wheat and semolina/durum wheat flour
3. Other raw materials of plant origin: quinoa, pulses, other cereals, other flours/semolinas, fruit and vegetables and soya/soybean oil
4. Raw materials of animal origin: meat, fish and eggs
5. Other ingredients: e.g., spices and flavourings used mainly in precooked food.

RAW MATERIALS	2022		2021	
	T	%	T	%
Rice	2,058,274	86.19%	2,028,296	87.28%
Wheat and wheat flours/semolina	222,542	9.32%	194,361	8.36%
Other RM plant origin	75,022	3.14%	64,841	2.79%
RM animal origin	20,175	0.84%	19,238	0.83%
Other ingredients	12,179	0.51%	17,158	0.74%
TOTAL	2,388,191		2,323,894	

Raw Materials



We do not use palm oil in the preparation of any of our products.

Although the use of raw materials from animal origin is less than 1% of the total in our products, corresponding to egg, the Ebro Group has undertaken to use exclusively ingredients from cage-free eggs in the production of any foods requiring that raw material as from 2025. This undertaking is extended to all the Group's companies in Spain and has also been adopted by Lustucru Frais in France. In 2022, the use of ingredients from cage-free eggs was already up to 99% in Spain and 82% in France.

PACKAGING MATERIALS

The packaging materials for finished products are mainly paper, cardboard and plastic.

TYPE OF MATERIAL	2022		2021	
	Quantity	Percentage	Quantity	Percentage
Plastic	45,086	48%	38,247	46%
Paper	46,830	50%	43,227	52%
Glass	0	0%	0	0%
Metal	3	0%	6	0%
Others	1,340	1%	1,600	2%
TOTAL	93,258		83,080	

RECYCLED INPUT MATERIALS

Based on the information received from the suppliers of packaging materials regarding the composition of their materials, we have calculated the recycled fibre/polymer content of the different types of packaging we use.

To preserve and guarantee the utmost food safety of our products, the primary packaging, which is in direct contact with the food, must have a 100% virgin material composition or be certified as suitable for use in the food industry. In this scenario, our primary packaging contains 6% recycled material.

The different secondary and tertiary packaging formats used by the Group both contain 74% of recycled fibre, on average.

□ Energy

This indicator is reported under standard GRI 303 (2016).

The energy consumption and inventory of greenhouse gas (GHG) emissions of all the Group companies is calculated under standard ISO 14064-1:2019.

ENERGY CONSUMPTION WITHIN THE ORGANISATION

We separate energy consumption within the organisation into direct consumption and indirect consumption.

The direct energy consumption is calculated taking into account the following:

1. The consumption of non-renewable fuels in stationary and mobile sources:
2. The consumption of renewable fuel:
 - a. Rice husk, a by-product of our industrial processes, used by Ebro India, Herba Ricemills and Mundiriso
 - b. Wood chips used by Ebro Frost
 - c. Charcoal used by Ebro India
3. The self-generated energy in photovoltaic and cogeneration facilities
4. The self-generated energy sold from photovoltaic and cogeneration facilities

DIRECT CONSUMPTION (GJ)

NON-RENEWABLE FUEL CONSUMED	2022		2021	
Natural gas	2,807,055	94.50%	2,722,752	75.63%
Other non-renewables	76,690	2.58%	805,189	22.36%
TOTAL CONSUMPTION NON-RENEWABLES (GJ)	2,883,745	97.08%	3,527,941	97.99%
RENEWABLE FUEL CONSUMED	2022		2021	
Biomass/Charcoal	80,976	2.73%	70,194	1.95%
TOTAL CONSUMPTION RENEWABLES (GJ)	80,976	2.73%	70,194	1.95%
SELF-GENERATED ENERGY	2022		2021	
Photovoltaic panels	6,361	0.21%	2,956	0.08%
Cogeneration	101,081	3.40%	94,458	2.62%
TOTAL SELF-GENERATION (GJ)	107,442	3.62%	97,414	2.71%
SELF-GENERATED ENERGY SOLD	2022		2021	
Photovoltaic panels	6	0.00%	13	0.00%
Stationary combustion/Cogeneration	553	0.02%	838	0.02%
TOTAL SELF-GENERATION SOLD (GJ)	559	0.02%	851	0.02%
SELF-CONSUMPTION PHOTOVOLTAIC	2022		2021	
SELF-CONSUMPTION PV (GJ)	6,355	0.21%	2,943	0.08%
TOTAL DIRECT CONSUMPTION (GJ)	2,970,524	100.00%	3,600,240	100%

3.6% of the direct consumption energy is self-generated at the photovoltaic facilities of our subsidiaries Arotz, Bertagni, Ebro Frost, Ebro India, Garofalo, Geovita, Herba Ricemills, Mundiriso and Transimpex, and at the cogeneration plants of Bertagni, Ebro Frost, Garofalo and Geovita.

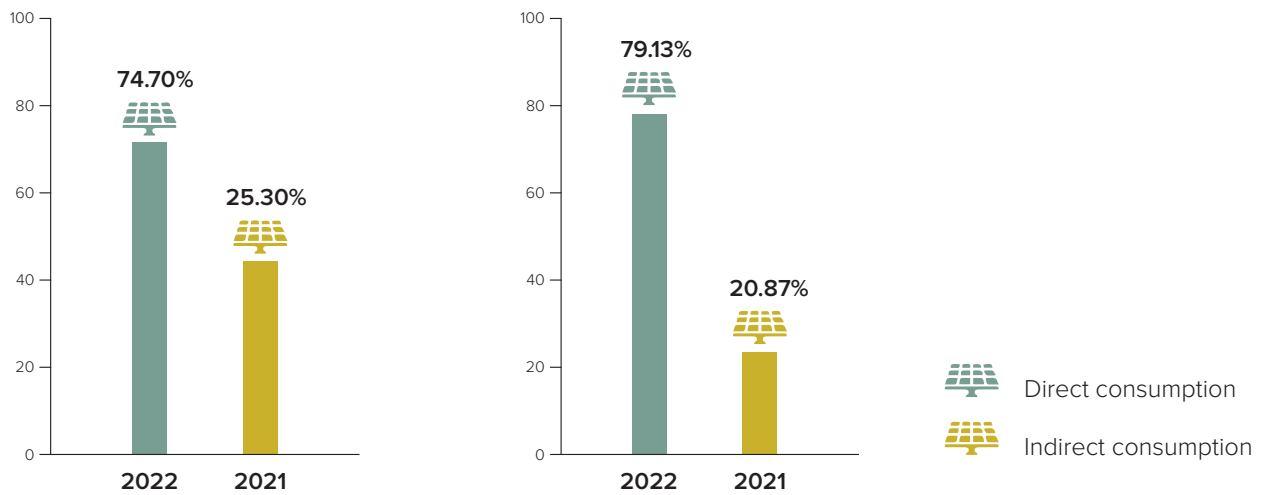
INDIRECT CONSUMPTION (GJ)

7.7% of the electricity purchased (indirect consumption) has a guarantee of renewable origin.

INDIRECT CONSUMPTION	2022		2021	
Electricity without GoO	920,955	91.55%	865,569	91.18%
Electricity with GoO	76,643	7.62%	73,992	7.79%
Steam	7,768	0.77%	9,149	0.96%
Heat	551	0.05%	546	0.06%
Cooling	0	0.00%	0	0.00%
TOTAL INDIRECT CONSUMPTION (GJ)	1,005,916	100.00%	949,256	100.00%

TOTAL ENERGY CONSUMPTION	2022		2021	
Direct consumption	2,970,524	74.70%	3,600,240	79.13%
Indirect consumption	1,005,916	25.30%	949,256	20.87%
TOTAL ENERGY CONSUMPTION (GJ)	3,976,440	100.00%	4,549,495	100.00%

Total energy consumption



ENERGY CONSUMPTION OUTSIDE OF THE ORGANISATION

We do not have the methodologies or activity data to calculate energy consumption outside of the organisation.

ENERGY INTENSITY

ENERGY INTENSITY	2022	2021
Total energy consumed (GJ)	3,976,440	4,549,495
Net sales Ebro (M€)	2,967.6	2,427.1
ENERGY INTENSITY (GJ/M€ NET SALES)	1,340	1,874

REDUCTION OF ENERGY CONSUMPTION

Ten companies in the Ebro Group have reported different initiatives to reduce their energy consumption, with a total investment of EUR 1,017,718.

COMPANY	PLANT	INITIATIVE	COST
Geovita	Villanova Monferrato	Cogeneration plant	520,000 €
Bertagni	Avio & Vicenza	Cogeneration plants	90,653 €
Ebro Foods Belgium, N.V.	Merksem (plant A)	New, more efficient compressor	151,280 €
S&B Herba Foods	Cambridge (Fullborn)	New, more efficient compressor	31,818 €
Herba Ricemills	San Juan de Aznalfarache	Renovation of equipment to improve heat transfer and reduce heat losses	105,168 €
Lustucru Frais	Communay	Heat recovery system in refrigeration unit, and water recovery	31,581 €
Mundi Riso	Vercelli	Improvement of heat insulation in packaging area	31,000 €
Riviana Foods Canada	Hamilton	Change from conventional lighting to LED	14,523 €
Arrozeiras Mundiarroz	Coruche	Change from conventional lighting to LED	3,701 €
Herba Ricemills	San Juan de Aznalfarache	Change from conventional lighting to LED	24,562 €
Tilda	Classic site	Change from conventional lighting to LED	13,432 €

□ Water and Effluents

This indicator is reported under standard GRI 303 (2018)

INTERACTIONS WITH WATER

Water consumption in Ebro includes water consumed in offices and in the manufacturing process. The production processes of pasta and precooked food are more water-intensive than the dry rice production process. The consumption of dwell water used by Agromeruan in rice growing is also included.

MANAGEMENT OF WATER DISCHARGE-RELATED IMPACTS

All effluent is discharged to the sewage networks, except from Bertagni, Ebro India, Ebro India, Ebro Frost and Mundiriz, which discharge into continental waters.

WATER WITHDRAWAL

The surface water withdrawn and used by the company Agromeruan for its agricultural activities in Morocco accounts for 78% of the total consumption by the Group. In this context, the global performance of our industrial activities account for use of the 22% remaining water withdrawal: 83% from the municipal water supply (third-party water) and 17% from groundwater.

WATER WITHDRAWAL	2022	%	2021	%
Third-party water	2,757,089	18%	2,588,676	17%
Groundwater	544,884	4%	617,738	4%
TOTAL INDUSTRIAL PROCESSES (M³)	3,301,972	22%	3,206,414	21%
Inland surface freshwater	11,880,000	78%	11,880,000	79%
Inland surface salt water	0	0%	0	0%
TOTAL WATER WITHDRAWN (M³)	15,181,972		15,086,414	
Total withdrawal freshwater (SS<1000 mg/l)	15,181,972		15,086,414	
Total withdrawal other water (SS>1000 mg/l)	0		0	

WATER WITHDRAWAL BY AREAS OF WATER STRESS

Using the World Resources Institute (WRI) classification of water stress areas, the group's water withdrawal by areas of water stress is as follows:

WATER WITHDRAWAL BY AREAS OF WATER STRESS	2022		2021	
	M ³	%	M ³	%
High	12,856,367	85%	12,724,396	84%
Low	84,929	1%	90,454	1%
Low-medium	1,505,808	10%	1,554,807	10%
Extremely high	46,239	0%	31,962	0%
Medium-high	688,630	5%	684,796	5%
TOTAL WATER WITHDRAWN (M³)	15,181,972		15,086,414	

NB: 92% of the water withdrawn in areas of high water stress corresponds to the agricultural activities of Agromeruan.

WATER DISCHARGE

DESTINATION OF DISCHARGE	2022	2021
Third party water (sewage network, treatment plants)	2,002,340	1,978,571
Inland water	237,695	265,802
Seawater	0	0
TOTAL (M³)	2,240,035	2,244,373

DISCHARGE TREATMENT	2022	2021
No treatment	1,048,824	1,697,143
Aerobic treatment	1,191,211	537,375
Anaerobic treatment	0	9,854
TOTAL (M³)	2,240,035	2,244,373

TYPE OF DISCHARGE	2022	2021
Freshwater (SS<1000 mg/l)	1,683,276	1,601,752
Other water (SS>1000 mg/l)	556,760	642,621
TOTAL (M³)	2,240,035	2,244,373

DISCHARGE BY AREAS OF WATER STRESS	2022		2021	
	FRESHWATER DISCHARGED (SS<1000 MG/L)	OTHER WATER DISCHARGED (SS>1000 MG/L)	FRESHWATER DISCHARGED (SS<1000 MG/L)	OTHER WATER DISCHARGED (SS>1000 MG/L)
High	813,284	0	701,409	0
Low	73,808	0	51,222	0
Low-medium	272,994	483,600	280,767	642,621
Extremely high	20,858	0	9,854	0
Medium-high	502,331	73,160	558,500	0
TOTAL DISCHARGE (M³)	1,683,276	556,760	1,601,752	642,621

No accidental discharge occurred in 2022.

REDUCTION OF WATER CONSUMPTION AND IMPROVEMENTS TO EFFLUENT QUALITY

Two companies in the Ebro Group reported initiatives to reduce water consumption or improve the quality of the effluent, with a total investment of EUR 417,606.

COMPANY	PLANT	INITIATIVE	COST
Bertagni	Avio & Vicenza	Improvements to water purifier	184,308 €
Riviana Foods Canada	Delta	Replacement of grease trap to improve the effluent quality	233,298 €

WATER CONSUMPTION

WATER CONSUMPTION	2022	2021
Water withdrawal	15,181,972	15,086,414
Water discharge	2,240,035	2,244,373
Water sold	0	0
TOTAL WATER CONSUMPTION (M³)	12,941,937	12,842,042

NB: The volume of water used in the rice crop in Morocco has not been considered discharge

DISCHARGE BY AREAS OF WATER STRESS	2022	%	2021	%
High	12,043,083	93%	12,022,987	94%
Low	11,121	0%	39,232	0%
Low-medium	749,214	6%	631,418	5%
Extremely high	25,381	0%	22,108	0%
Medium-high	113,139	1%	126,296	1%
TOTAL WATER CONSUMPTION (M³)	12,941,937		12,842,042	

Biodiversity

This indicator is reported under standard GRI 304 (2016).

OPERATIONAL SITES IN OR ADJACENT TO PROTECTED AREAS AND AREAS OF HIGH BIODIVERSITY VALUE OUTSIDE PROTECTED AREAS [304-1]

The Riviana plant in Freeport, Texas (United States) is adjacent to a protected area of wetland, PEM1A, Brazos River.

Tilda has a jetty on the River Thames (United Kingdom).

SIGNIFICANT IMPACTS OF ACTIVITIES, PRODUCTS, AND SERVICES ON BIODIVERSITY

There have been no impacts in any areas considered of high biodiversity value.

HABITATS PROTECTED OR RESTORED

No restoration measures have been implemented in protected habitats.

□ Climate Change

Climate change poses a serious threat for the Group's business activities as it directly affects essential aspects such as the production of raw materials, the availability of critical resources (e.g., water), the viability of product transport, logistics and distribution operations and increased energy needs of our production processes, among others.

Accordingly, in accordance with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), we have identified the potential risks, impacts and opportunities that climate change may have on our organisation, establishing the appropriate mitigation and/or adaptation measures for each one. This will shortly be taken further, with the financial quantification of those risks and impacts.

Some of the mitigation measures are already contemplated in our Sustainability Plan HEADLINE FOR 2030, including: 1) making a more efficient consumption of water and energy; 2) reducing, recovering and re-using waste; 3) recycling packaging; 4) optimising logistics; and 5) using new sustainable agriculture models and technologies. The details and monitoring of each of these measures is available on the website caringforyouandtheplanet.com.

To calculate Scope 1 and 2 of the Group's Carbon Footprint we developed a Greenhouse Gas Emissions Inventory procedure for all the Group companies under standard ISO 14064-1:2019. We have not yet defined our reduction goals, but we have already started to develop emissions reduction initiatives. We thus have:

- **Photovoltaic installations:** Arotz, Bertagni, Ebro Frost Germany, Ebro India, Herba Ricemills, Garofalo, Geovita, Mundiriso and Transimpex
- **Cogeneration:** Bertagni, Ebro Frost Germany, Garofalo and Geovita
- **Biomass:** Ebro Frost Denmark, Herba Ricemills, Mundiriso and Ebro India

The next stage will be to measure Scope 3 and define an emissions reduction plan for all three scopes.

Regarding Scope 3, through our accession to the Lean & Green Programme for the calculation-reduction-offset of emissions produced in national overland logistics (Spain), we have completed the reduction plan (20% in 5 years) and continue to calculate our logistics footprint every year.

Also in Scope 3, the Ebro Group takes an active approach to the promotion and investigation of environmentally sustainable growing techniques for application to the rice crop in different production areas, to contribute towards greater preservation of the environment, promote biodiversity and mitigate the effects of climate change. This work is done through own initiatives and specific collaborations with stakeholders and sectoral associations, particularly the Sustainable Agriculture Initiative Platform (SAI Platform) and the Sustainable Rice Platform (SRP).

In 2022, the most important examples of this work were:

THAILAND: SUSTAINABLE AROMATIC RICE INITIATIVE OF THAILAND (SARI-T)

This is a programme developed jointly with Mars, GIZ and the Thai Rice Department, which aims to enhance sustainably the economic viability of 1,200 rice growers in the province of Roi Et and the production of high quality Hom Mali aromatic rice. The incorporation of good agricultural practices that respect the environment improves growers' livelihoods. The Sustainable Rice Platform (SRP) crop verification is also made. The project completed its fifth year of rice production in 2022 and will probably be extended.

SPAIN: ORYZONTE PROGRAMME

This programme is developed in the Guadalquivir Marshes (Seville) jointly with Mars Food and Danone.

The project, which began in 2018, aims to improve the sustainability of the rice crop in the province of Seville, where the largest rice-growing area is located in Spain, focusing on three key areas: water, greenhouse gas emissions (GHG) and biodiversity.

- With regard to GHG emissions, the measurements recorded in the control plot were considerably lower than those reported in other regions of Spain, which could be due to the high clay and sulphate content of the soils in Seville. In addition, the work has shown that the implementation of specific practices aligned with the guidelines of the Intergovernmental Panel on Climate Change (IPCC), such as Alternate Wetting and Drying (AWD) techniques, actually reduce GHG emissions from the Seville rice fields. In this regard, by implementing the AWD techniques, the project has measured a 60% reduction in GHG emissions and a considerable reduction of 63% in methane emissions in comparison with the levels recorded where the growers' habitual practices were implemented.

Similarly, the measurement of emissions has shown that the practice of *stopping winter flooding* considerably reduces GHG emissions in comparison with traditional practices, where the fields are kept flooded from harvesting to mid-January.

In all cases, the emissions of other greenhouse gases (particularly nitrous oxide) were not material. Therefore, the potential of global warming is significantly reduced through the implementation of *intermittent irrigation* and *stopping winter flooding*.

In 2022, AWD was implemented on 255 Ha and we are still working with rice growers in the region to encourage the use of these practices on their land. We are working with *Sustain Cert* to certify these results.

- With regard to water, the project collaborates with the National Council for Scientific Research (CSIC) in the development of a water and salinity model to improve and monitor use of water practices. A key part of this work is to determine the yield/salinity ratio in the conditions present in Seville.
- Biodiversity. The programme has continued with the installation of vertical structures and nests for bats and birds of prey of special interest, such as the barn owl or the lesser kestrel. Encouraging the presence of these birds of prey and bats is a promising strategy to reduce the use of pesticides and increase the sustainability of the agricultural production systems.

INDIA: PROGRAMMES

Our company Ebro India has continued working on different sustainable agriculture projects, some of which have been in place for several years, such as EKTA, Organic Farming, Control Farming and, since 2021, a new project focusing on the reduction of water consumption and emissions.

One of the greatest challenges in India is compliance with the maximum pesticide residue limits (MRL) permitted in the European Union. Through the Control Farming programme, Ebro India works closely with the growers in monitoring all the agricultural practices they use from sowing to harvesting, educating them in the correct use of pesticides and fungicides in terms of quantity, quality and timing.

The new project that commenced in the previous year to reduce water consumption and emissions in farming is intended to benefit the same group of growers as Control Farming. In 2022, more than 50 growers, the equivalent of 3000 Ha of crops, have used the Alternate Wetting and Drying (AWD) techniques, with which they have managed to reduce water consumption and methane emissions. Biological plague control measures (spider bundles and pheromone traps) have also been used to reduce the use of pesticides. Another significant aspect of the programme is the use of pseudomonas by some growers, which helps to inhibit pathogenic microorganisms, stimulate the synthesis of growth hormones and strengthen disease resistance in rice plants, while reducing the quantity of pesticides needed to combat plagues. All these initiatives have been welcomed by growers.

The EKTA programme, which has been running since 2015, provides continuous support for over 6000 growers throughout all the stages of the crop, from the treatment of seeds to the post-harvest stage. EKTA runs schools in the villages to provide training in best agricultural practices, focusing on saving water and promoting biological plague-control measures. A number of experts participate in the project to respond to specific questions raised by growers.

Finally, the Organic Farming programme involves joint work with around 400 growers for the production of organic basmati rice certified under the Fair Trade standard.

OTHER PROGRAMMES FOCUSING ON THE SUSTAINABILITY OF OUR AGRICULTURAL RAW MATERIAL

Other Group companies have worked during the year on implementing rice crop verification programmes under the sustainability standard, Farm Sustainability Assessment (FSA), of the SAI Platform. Those companies – Mundiriso, Riviana Foods and Ebrosur – have implemented the FSA standard on producers in Italy, United States and Argentina, respectively.

In Italy, the subsidiary Garofalo embarked on a sustainable durum wheat growing programme in 2022 together with its agricultural suppliers to optimise the use of fertilizers, pesticides and water.

We should also point out that in order to address the challenges of climate change and follow any changes in law in this area, the Ebro Group is a member of the Climate Change Cluster promoted by Forética (www.foretica.org). In that Cluster, a group of large companies work together to lead the strategic positioning addressing climate change in the business agenda, discuss and exchange views and good practices, participate in the global debate and become key players in the decisions made at the administrative level.

Emissions

This indicator is reported under standard GRI 305 (2016).

The methodology employed under ISO 14064-1:2019 is of calculation, using the activity data of each company/plant and emission factors taken from official sources (Annex 3), applied to all the group's plants. All the gases are included in the calculation: CO₂, CH₄, N₂O, HFC, PFC, SF₆ and NF₃.

The Ebro Group's GHG emissions are consolidated under the operational control approach, including: (a) direct GHG emissions and (b) indirect GHG emissions for imported energy.

DIRECT (SCOPE 1) GHG EMISSIONS

The sources of direct (Scope 1) GHG emissions are:

- Emissions of CO₂, CH₄ and N₂O from fossil fuel consumption by stationary sources and mobile sources (fleet of vehicles and machinery).
- Leaks of cooling gases (HFC) from HCAV equipment
- Emissions of CH₄ from the rice crop
- Emissions of N₂O from elimination of nutrients in water treatment
- Direct emissions of CH₄ and N₂O from Biomass (rice husk, wood and charcoal)

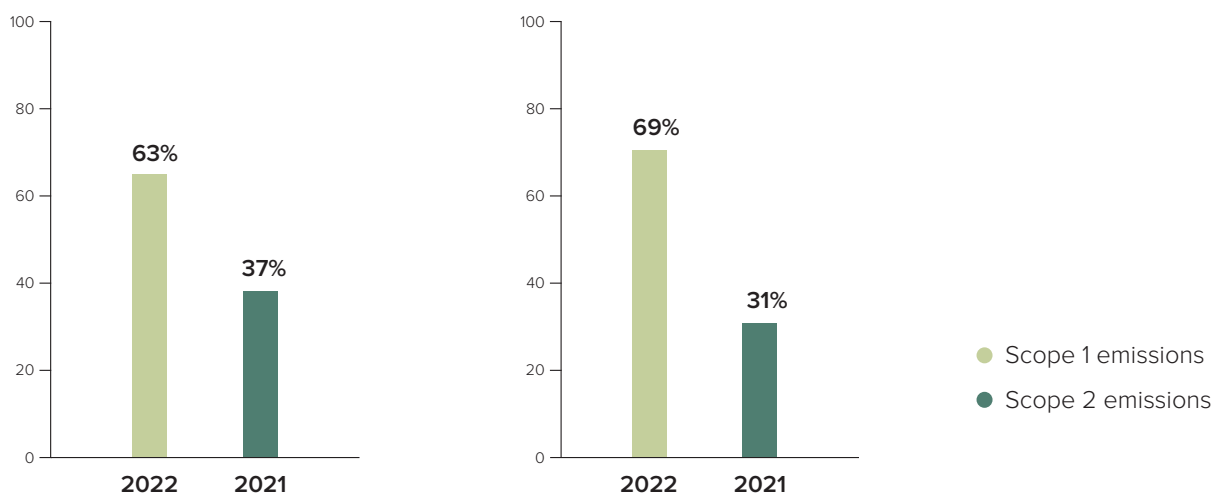
INDIRECT (SCOPE 2) GHG EMISSIONS

The sources of indirect (Scope 2) GHG emissions are:

- Emissions of CO₂ from energy consumption (electricity, heat, steam and cold) in installations and processes.

GHG EMISSIONS	2022		2021	
Scope 1 emissions	171,685	63%	215,575	69%
Scope 2 emissions	102,467	37%	97,253	31%
TOTAL EMISSIONS (T CO₂E)	274,153		312,828	

GHG emissions



We calculate the Scope 2 emissions according to the location, using specific emission factors of each country.

The emissions from the rice crop of Mundi Riz in Morocco account for 2.6% of the Scope 1 emissions and 1.6% of the total emissions of the Group.

BIOGENIC CO₂ EMISSIONS

Biogenic CO₂ emissions are produced in the combustion of renewable fuels, in our case rice husk, wood chips and charcoal.

BIOGENIC CO ₂ EMISSIONS	2022	2021
Biogenic CO ₂ (t)	8,666	7,466

OTHER INDIRECT (SCOPE 3) GHG EMISSIONS

We do not have the methodologies or activity data to calculate all the indirect GHG emissions produced outside the organisation (Scope 3). We plan to calculate Scope 3 over the course of 2023-2024, and subsequently define specific targets for emissions reduction. For the time being, we have the following partial measurements:

1. The emissions associated with the maritime logistics of our raw materials and products of the Group's rice division. This calculation is made using the Eccoprint tool developed by EccoFreight and includes the transport (by rail and/or road) from the source plant to the port of departure and from the port of arrival to our plant.

In 2022, EccoFreight handled approximately 17% of the shipments of the entire rice division, with 190,643 tonnes shipped and GHG emissions of 46,235 t CO₂e.

By choosing more efficient routes instead of other alternative routes available with larger carbon footprints, we avoided the emission of 21,675 t CO₂e, which is a 32% reduction of our Scope 3 emissions with EccoFreight.

2. Emissions associated with national overland logistics (Spain). We continue working to reduce our logistics carbon footprint after joining the Lean & Green programme. After defining 2019 as the base year and the total t CO₂e/tonne of product of freight for sale, significant progress has been achieved:

→ 2020: 6.06% reduction

→ 2021: 17.60% reduction

→ 2022: measurement of carbon footprint in progress

GHG EMISSIONS INTENSITY

EMISSIONS INTENSITY	2022	2021
Total GHG emissions (t CO ₂ e)	274,152.7	312,828.3
Ebro Net Sales (M€)	2,967.6	2,427.1
GHG EMISSIONS INTENSITY (T CO₂E M€ NET SALES)	92	129

REDUCTION OF GHG EMISSIONS

We are studying the possibility of defining emissions reduction objectives aligned with the recommendations of the scientific community. We plan to calculate our Scope 3 emissions over the course of 2023-2024 and subsequently define specific emission reduction targets.

In addition to the energy reduction initiatives described in section 302 energy, which entail reducing emissions, three companies have implemented initiatives to reduce emissions, for a total value of EUR 1,397,993.

COMPANY	PLANT	INITIATIVE	COST
Ebro Frost Germany	Offingen	Photovoltaic plant	211,328 €
Ebro India	Taraori	Photovoltaic plant	565,275 €
Herba Ricemills	Rinconada	Photovoltaic plant	554,153 €
Ebro India	Taraori	Emissions scrubber in boiler chimney, new, more efficient compressors	67,177 €

EMISSIONS OF OZONE-DEPLETING SUBSTANCES (ODS)

Thanks to the development of specific laws (on an international, European and national level) and the efforts of the sectors affected, ODS production and consumption have been practically phased out. The Ebro Group's activities are not included in any of the main sectors that use or used ODS, so in our opinion this indicator is not material and is not calculated.

NOX, SOX AND OTHER SIGNIFICANT AIR EMISSIONS

We calculate the emissions of air pollutants associated with the stationary and mobile combustion processes, as they are the most significant. The NOx, SOx, etc. emissions are obtained by multiplying the GJ by a specific emissions factor for each type of pollutant.

In accordance with the applicable environmental laws and regulations, regular inspections and measurements are made by an external company to check compliance. No non-compliance was detected during the year.

NOx, SOx & OTHER EMISSIONS (T)	2022							
	NOx	CO	COV	SOx	PM10	PM2.5	PM	TOTAL
Stationary combustion	224	129	90	3	14	14		474
Mobile combustion	9	13	2				1	25
TOTAL POLLUTANTS (T)	233	142	92	3	14	14	1	499

NB: The vast reduction of CO emissions in comparison with 2021 is due to the change of fuel used in Riviana Foods.

In 2022, through the purchase of electricity with guarantee of origin (GoO), photovoltaic self-generation and the use of fuels from renewable sources, we have avoided the emission of 9,350 t CO₂e.

ACTIVITY	2022	
	MWH	EMISSIONS AVOIDED (T CO ₂ E)
Electricity with GoO	21,290	4,117
Photovoltaic self-generation	1,767	685
Biomass	22,493	4,547
TOTAL	45,550	9,350

MEASURES TO REDUCE NOISE AND LIGHT POLLUTION

All our plants comply with environmental standards and make the necessary measurements to make sure they keep within the noise and light pollution limits. Herba Ricemills updated the noise map of its San Juan de Aznalfarache plant in 2022.

□ Waste

This indicator is reported under standard GRI 306 (2020).

WASTE GENERATION

Most of the waste generated by our business is classified as non-hazardous waste. There is also a small proportion of hazardous waste generation, mainly waste from the packaging of chemical products used in maintenance work at our facilities.

MANAGEMENT OF SIGNIFICANT WASTE-RELATED IMPACTS

All waste of whatever type is separated by kind and taken to authorised waste disposal contractors for treatment according to the laws in place in each geographical area, giving priority to recycling and reuse wherever possible.

□ Circularity measures

To guarantee meeting the reduction, recycling and re-use targets defined in the Packaging and Packaging Waste Act 11/97 of 24 April, our Spanish subsidiary Herba has joined Ecoembalajes España, S.A. (Ecoembes), which has the mission of designing and developing systems for selective collection and recovery of used packaging and packaging waste. Ecoembes uses the “Green Dot” (symbol that appears on the packaging) to show that the packager of the product has paid a sum of money for each package put on the market.

Both the European rice companies and the head offices of Ebro Foods have signed agreements with companies similar to Ecoembes for the destruction of paper and other data carriers. With these agreements, apart from complying with the Data Protection Act, they guarantee a sustainable management of the documentation through the undertaking by these companies to destroy and recycle the material.

As part of our commitment to having 100% recyclable packaging by 2030, the dry rice products of our brands Arroz SOS, La Fallera, Sabroz and La Cigala in España, Risella in Finland and Brillante rice cups, one of the formats that the Group sells most, are now 100% recyclable.

Apart from that, the Group has worked on three principal projects in 2022 to make our packaging more recyclable.

1. For our brand SOS specialties, sold in flexible non-recyclable packaging (polyethylene & polypropylene PE/PP), we studied the possibility of changing the composition to recyclable paper. As the necessary line productivity was not reached with that alternative packaging and it was not economically viable, we finally opted to change to a mono-polymer polypropylene, which is 100% recyclable.
2. Mono-material polypropylene (PP) doypack. The tests run in Herba and Tilda did not produce satisfactory results. The use of a mono-material 100% polypropylene base to replace the two triplex currently in use (Polyester/Polyamide/Polypropylene and Polyester/High Barrier Polyester/Polypropylene (PET/PA/PP and PET/HB PET/PP) has turned out not to have sufficient line productivity or oxygen barrier to preserve the organoleptic properties of the food. We continue to seek feasible alternatives that will guarantee the food preservation properties of the packaging used at present.

3. We increased the number of lines used by different plants in the Group to manufacture the compact 1 kg and 0.5 kg paperboard format to replace polypropylene.
- In Antwerp (Ebro Foods Belgium), in order to be able to work with paperboard (the same product used at the Silla plant for the La Fallera brand), the company invested in the tube and former of the filling unit to make the line compatible with the use of paper.
 - Tests are being run for the same purpose on the compact 1 kg and 0.5 kg line in Vercelli (Mundiriso), with a view to including paperboard as a possible replacement for polypropylene.

□ Actions to combat food waste

The main internal policy for food surplus within the Group (defining surplus as products suitable for consumption but which, for different reasons -such as packaging defects, being close to their use-by date, etc.- are not suitable for sale to consumers) is donation to food banks.

The Ebro Group also participates actively in the programme “Don’t waste food”, a collaborative initiative to reduce food waste, led by AECOC, the association of large consumer companies.

The three principal objectives of the project are to:

- Establish prevention and efficiency practices throughout the food chain to reduce waste
- Maximise use of the surplus produced in different stages of the value chain (redistribution, reuse and recycling)
- Make society aware of this problem and the need to reduce food waste

The initiative is supported by over 350 manufacturers and distributors in the large consumer sector, logistics and haulage operators, business associations, consumer organisations and other institutions and is coordinated by AECOC.

The programme aims to inform people about the efforts being made by companies to prevent food waste and promote enhanced collaboration to gradually reduce the problem. Every year some 7.7 million tonnes of food are wasted in Spain. Therefore, the “Don’t waste food” programme aims to make consumers throughout the world aware of the problems of food waste and get them to participate in the initiative, encouraging them to collaborate in order to reduce the waste generated by each person.

MEASURES FOR WASTE PREVENTION, RECYCLING, REUSE AND OTHER FORMS OF RECOVERY AND ELIMINATION

All the companies in our Group have contracted the management of hazardous and non-hazardous waste to authorised waste disposal contractors.

Some of the Group's rice companies use the husk from their manufacturing processes as a source of renewable energy. During 2022, Ebro India, Mundi Riso and Herba Ricemills reported the use of rice husk as a renewable fuel to obtain thermal energy.

Waste generated

WASTE	2022		2021	
	T	%	T	%
Non-hazardous	36,757	99%	34,858	100%
Hazardous	285	1%	118	0%
TOTAL WASTE (T)	37,042		34,976	

NB: The increase in hazardous waste, although still negligible, is due to the fact that Ebro India did not report ash as waste before now, because it did not have the methods necessary to quantify it.

Waste for recovery and disposal

DESTINATION OF WASTE	2022		2021	
	T	%	T	%
Total waste for disposal	14,193	38%	13,978	40%
Total waste for recovery	22,850	62%	20,999	60%
TOTAL WASTE (T)	37,042		34,976	

NON-HAZARDOUS WASTE FOR DISPOSAL	2022		2021	
	T	%	T	%
Landfill	10,416	28%	11,450	33%
Incineration	727	2%	721	2%
Other disposal operations	2,801	8%	1,751	5%
TOTAL DISPOSAL NH WASTE (T)	13,943	38%	13,921	40%

NON-HAZARDOUS WASTE FOR RECOVERY	2022		2021	
	T	%	T	%
Recycled	8,913	24%	5,185	15%
Composted	3,552	10%	4,273	12%
Reused	10,164	28%	10,870	31%
Other recovery operations	185	1%	610	2%
TOTAL RECOVERY NH WASTE (T)	22,814	62%	20,937	60%
TOTAL NON-HAZARDOUS WASTE (T)	36,757		34,858	

HAZARDOUS WASTE FOR DISPOSAL	2022		2021	
	T	%	T	%
Landfill	218	76%	0	0%
Incineration	16	6%	13	11%
Other disposal operations	16	6%	44	37%
TOTAL DISPOSAL H WASTE (T)	250	88%	57	48%

HAZARDOUS WASTE FOR RECOVERY	2022		2021	
Recycled	32	11%	43	36%
Composted	0	0%	4	3%
Reused	1	0%	0	0%
Other recovery operations	2	1%	15	13%
TOTAL RECOVERY H WASTE (T)	36	12%	62	52%
TOTAL HAZARDOUS WASTE (T)	285		118	

Actions to increase waste recovery

In Spain, the company Herba Ricemills has made a profound change in its waste management. As a result, in 2022, 99% of the waste generated was managed through recovery operations.

In addition, two companies in the Ebro Group have reported initiatives to improve waste management and recovery, investing a total sum of EUR 14,100.

COMPANY	PLANT	INITIATIVE	COST
S&B Herba Foods	Liverpool	New cardboard compactors	13,600 €
Riviana Foods Canada	Hamilton	Training for operators on waste separation	500 €

Environmental Compliance

NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

In 2022, 3 plants reported minor non-compliance with environmental laws and regulations that did not lead to fines as appropriate measures had been taken.

COMPANY	PLANT	ENVIRONMENTAL NON-COMPLIANCE
Arrozeiras Mundiarroz	Coruche	Exceeding permitted use of water
Lustucru	St. Genis Laval	Non-compliance of pH and temperature of effluent
Riviana Foods	Alvin	Emissions records not available
Riviana Foods Canada	Delta	pH of effluent off specification

PROVISIONS AND GUARANTEES FOR ENVIRONMENTAL RISKS

All the Group companies have taken out third party liability insurance covering any damage caused by sudden, unintentional, accidental pollution; that insurance is considered to cover any possible risks of this nature. To date there have been no significant claims for environmental issues, favourable outcomes of audits and inspections, and no allegations in the processing of Integrated Environmental Authorisations, etc.

ENVIRONMENTAL ASSESSMENT AND CERTIFICATION PROCEDURES

Total compliance with the laws and regulations applicable to its activities is a basic principle and goal in the Ebro Group environmental management. All the production plants of the Ebro Group operate under the applicable certifications, specifications and authorisations in their respective geographical areas and internally manage their environmental aspects accordingly.

The following workplaces have an environmental management system certified under UNE-EN-ISO 14001:

- Herba Ricemills (San Juan, Coria, Los Palacios, La Rinconada and Isla Mayor plants)
- Garofalo Gagnano

□ Investments in environmental risk prevention

Twelve of the 33 companies covered by this report have reported investments in measures to reduce / optimise energy consumption, water consumption, GHG emissions and waste management:

- Arrozeiras Mundiarroz
- Bertagni
- Ebro Foods Belgium
- Ebro Frost Germany
- Ebro India
- Geovita
- Herba Ricemills
- Lustucru Fraix
- Mundiriso
- Riviana Foods Canada
- S&B Herba Foods
- Tilda

ENVIRONMENTAL EXPENSE AND INVESTMENT	2022	2021
Cost of management and control	1,404,433 €	1,143,950 €
Investment to minimise impact	2,913,228 €	4,747,655 €
TOTAL	4,317,661 €	5,891,605 €

The investments reported here include measures to reduce energy consumption, water consumption and emissions, as well as the cost of waste management, regulatory inspections, noise measurements and analyses. They also include initiatives to adapt to climate change, such as the Oryzonte project, which aims to reduce water consumption and GHG emissions, and rice crop verifications under the SRP standard in Spain.

The principal investments were made by Herba Ricemills, Ebro India and Geovita, with the installation of two photovoltaic plants and one cogeneration plant, respectively.