
COMMITMENT TO OUR ENVIRONMENT

EBRO 2016





Commitment to our environment

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

- ◆ **Air emissions:** Mainly emissions of particles during the handling of cereals (rice and wheat) and combustion gases for the production of steam and drying of the raw materials. The most widely used fuel is natural gas.
- ◆ **Greenhouse gas (GHG) emissions:** The GHG emissions generated by our activities are related to energy consumption, fossil fuels and electricity.
- ◆ **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.
- ◆ **Water consumption:** The amount of water used in our processes is very small (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.
- ◆ **Waste generation and management:** The Ebro Group generates minimal amounts of waste, both non-hazardous (mainly packaging of ingredients and ancillary materials) and hazardous (maintenance operations).

To minimise these impacts, the Ebro Group upholds protection of the environment as one of the basic principles of our activities and implements the necessary tools, measures and means in its companies to guarantee that protection. The Ebro Group takes measures to:

- ◆ Ensure that its companies comply with the environmental laws applicable to their respective activities by implementing internal management systems and monitoring the applicable laws and regulations.
- ◆ Minimise the environmental impact of its activity by seeking eco-friendly solutions and continually embarking on initiatives to reduce its emissions and waste generation and optimise its consumption of water, energy and packaging material.

- ◆ Manage all its waste adequately and safely, encouraging recycling and reuse. Use recycled raw materials and/or those respectful of the environment, whenever possible.
- ◆ Organise environmental awareness and training programmes for employees.

In Spain, to guarantee meeting the reduction, recycling and re-use targets defined in the Packaging and Packaging Waste Act 11/97 of 24 April, the 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) concept to show that the packager of the product has paid a sum of money for each package put on the market. [*Punto Verde* (Green Dot) is also the name given in Spain to Recycling Centres.]

Both the 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 recycle the material.

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

The Ebro Group also takes action on the rest of its value chain. It has launched a programme to control the environmental performance (social and governance) of its industrial suppliers through ethics audits and collaboration with them to enhance their environmental practices if necessary. It is using the Sedex platform as its management tool for this. During 2016, the Ebro Group created a holding account on that platforming, in which all the companies in the rice division are already integrated, and the programme has been launched with the rice suppliers considered most critical.

The Ebro Group also takes an active approach to the promotion and investigation of environmentally sustainable growing techniques for application in the production of its agricultural raw materials, the principal material currently under study being rice. 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.

More recently, the Ebro Group joined the Climate Change Cluster promoted by Forética (www.foretica.org). In that Cluster, a group of large enterprises work together to lead strategic positioning for climate change in the management of organisations, discuss and exchange opinions and good practices, be part of the global debate and be key to government decisions.

Environmental performance – GRI indicators

Scope of the report

The figures set out below correspond to the 45 production plants that the Ebro Group has through its different companies.

The comparison between 2016 and 2015 is somewhat distorted, since the figures of the following six plants have been added to the consolidation in this report and were not included in last year's report:

- ◆ Feillens Feillens (France), owned by Panzani
- ◆ Delta and Hamilton (Canada), owned by New World Pasta Group
- ◆ Offingen (Germany) and Orbaek (Denmark), owned by Ebrofrost Holding, GmbH
- ◆ Antwerp (Belgium), owned by Herba Ingredients

The figures set out below have been prepared according to the G4 Guidelines of the Global Reporting Initiative (GRI).

GEOGRAPHICAL LOCATION	NO. OF PLANTS REPORTING	COMPANIES
Europe	29	
Spain	7	Herba Ricemills
Portugal	1	Mundiarroz
UK	3	S&B
Germany	1	EbroFrost
Denmark	1	EbroFrost
Italy	2	Mundi Riso / Garofalo
France	10	Panzani
Belgium	3	Boost/Herba Ingredients
Netherlands	1	Lassie
North America	12	
USA/Canada	12	Riviana (5) American Rice (1) NWP (6)
Africa	2	
Morocco	1	Mundi Riz
Egypt	1	Herba Egypt
Asia	2	
Thailand	1	Herba Bangkok
India	1	Ebro India
TOTAL	45	

Materials

Raw Materials [EN1]

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

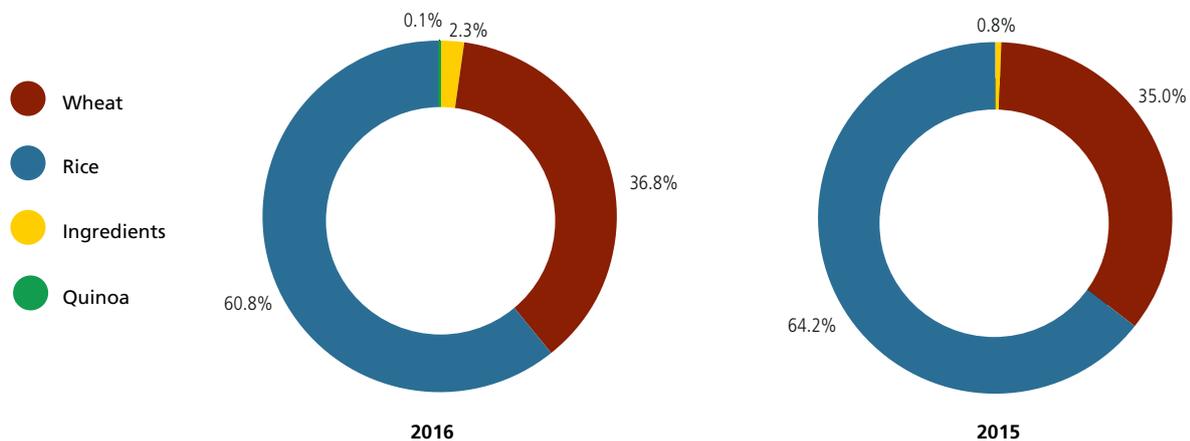
The raw materials used in finished goods are divided into two categories:

- ◆ **Agricultural:** rice, wheat and quinoa
- ◆ **Processed:** ingredients (ready-to-serve).

RAW MATERIALS FOR PRODUCT (T)	2016	2015
Rice	1,785,386	1,716,588
Durum wheat	1,081,782(*)	934,010(*)
Quinoa	2,561	---
Ingredients	67,877	21,160
TOTAL	2,937,606	2,671,757

(*) Including wheat flour used by Garofalo.

Raw Materials



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

INPUT MATERIALS FOR PACKAGING (T)	2016	2015
Paper	16,865	16,603
Cardboard	40,363	30,432
Plastic	15,499	9,683
Others	2,151	1,792
TOTAL	74,878	58,509



PAPER VALUES PRIZE 2016

ASPAPPEL (an association bringing together the thirteen sectorial organisations of the paper chain industry) awarded Ebro Foods one of the Paper Values Prizes 2016. The company was given this prize for its SOS Rice advertising campaign in 2015, #notienesquesertumadre, which underscored the benefits of the product’s 100% paper packaging as a natural, recyclable and biodegradable material that guaranteed the preservation and freshness of the rice. SOS, which had pioneered the use of paper packaging for retail in the mid-twentieth century, both nationally and internationally, used this campaign to promote the use of paper packaging as a communication tool to boost the brand’s attributes.

The Paper Values Prizes represent the paper sector’s acknowledgement of people and organisations that epitomize these values in activities or initiatives in the worlds of culture, art, literature, communication, marketing, advertising, education, sport, entertainment, economy or business, or in environmental, scientific, technological, social, humanitarian or political areas. There are five categories, covering the characteristic properties of this material: its essential, valuable, natural, innovating and renewable nature. The prize was awarded to the SOS campaign in the Natural category.

Recycled packaging materials [EN2]

The recycled input materials for packaging set out below are partial, since this indicator has not been reported globally by all the European companies (the North American companies have reported it).

RECYCLED INPUT MATERIALS IN PACKAGING (T)	2016	2015
Paper	5,672	5,877
Cardboard	11,795	8,873
Plastic	208	126
TOTAL	17,665	14,876

Energy

Energy consumption [EN3]

The total energy consumption for the Ebro Group is shown below:

Direct consumption

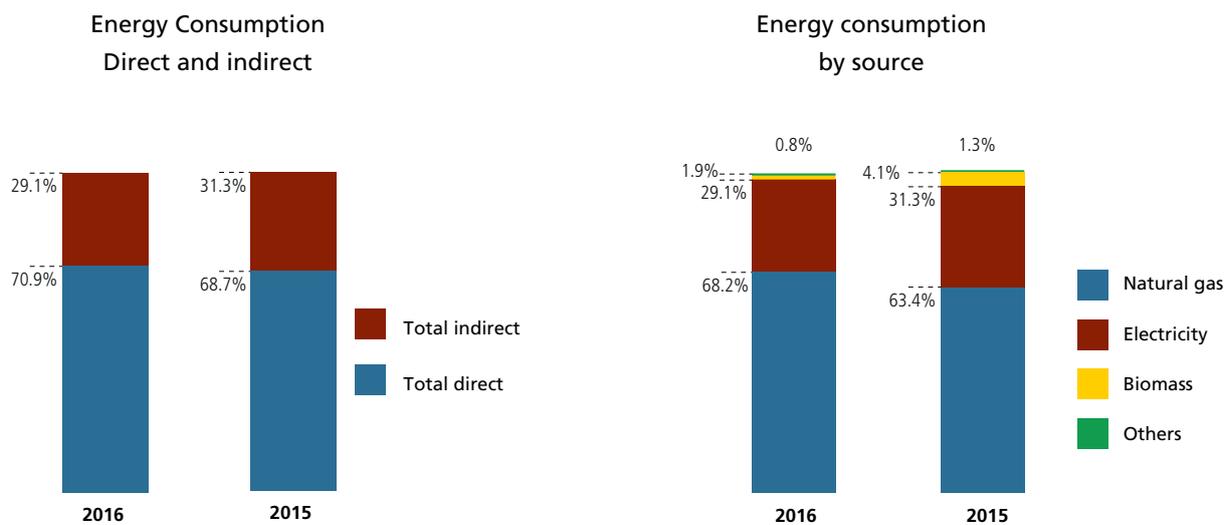
CONSUMPTION NON-RENEWABLE ENERGY SOURCES (GJ)	2016	2015
Natural gas	3,061,842	2,178,262
Others	36,951	43,952
TOTAL	3,098,793	2,222,214

CONSUMPTION RENEWABLE ENERGY SOURCES (GJ)	2016	2015
Biomass (*)	84,631	139,705
TOTAL	84,631	139,705
TOTAL DIRECT CONSUMPTION	3,183,424	2,361,919

(*) Exclusively rice husk, a by-product of our industrial processes.

Indirect consumption

INTERMEDIATE ENERGY ACQUIRED AND CONSUMED (GJ)	2016	2015
Electricity	1,304,886	1,074,725
TOTAL INDIRECT CONSUMPTION	1,304,886	1,074,725
TOTAL ENERGY CONSUMPTION (GJ)	4,488,311	3,436,644





Energy intensity [EN5]

	2016	2015
Total produced (t)	2,877,469	2,498,189
Total energy consumed (GJ)	4,488,311	3,436,644
ENERGY INTENSITY (GJ/T PRODUCT)	1.56	1.38

ENERGY INTENSITY

2016



2015



Reduction of energy consumption [EN6]

Four companies of the Ebro Group have reported initiatives to reduce energy consumption, by a total of €407,657.

COMPANIES	INITIATIVE	COST (€)
Panzani	Heat harnessing of boiler combustion gases to preheat the water New heat exchangers	263,000 €
Garofalo	Installation LED luminaires	24,000 €
Riviana y New World Pasta	Installation LED luminaires. New compressors	120,657 €
TOTAL		407,657 €

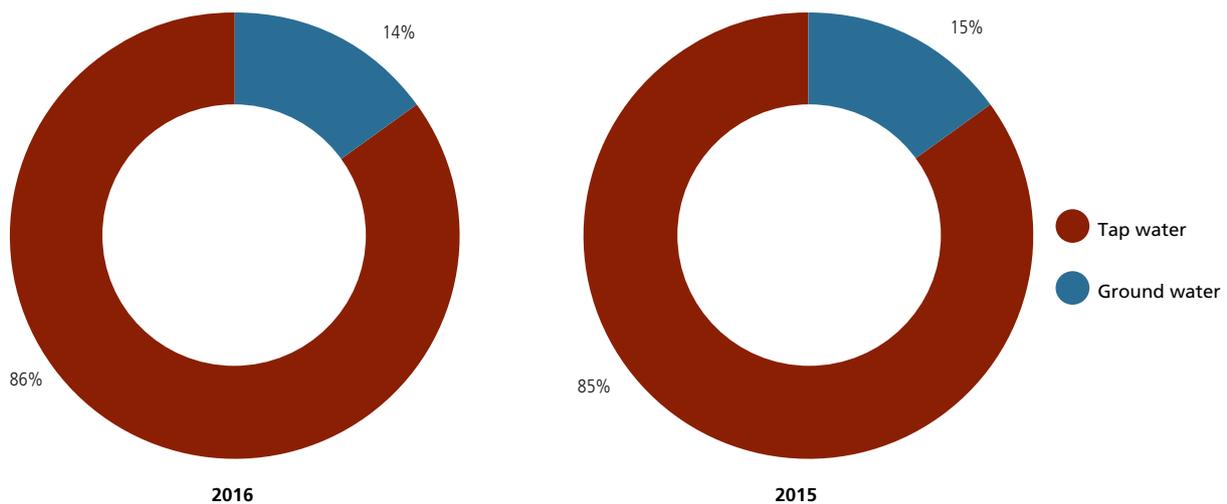
Water consumption

Total water consumption [EN8]

TOTAL VOLUME OF WATER WITHDRAWN (M ³)	INITIATIVE	COST (€)
Tap water (municipal or other utilities)	2,925,528	1,835,550
Groundwater	493,681	320,479
Total industrial processes	3,419,209	2,156,029
Surface water ⁽¹⁾	17,340,660	18,553,800
TOTAL WATER WITHDRAWN	20,759,869	20,709,829

(1) The surface water was not withdrawn for our industrial activity but the agricultural activity performed by the subsidiary Rivera del Arroz in Morocco.

Water consumption (plants)



Water recycled and reused [EN10]

TOTAL VOLUME OF WATER RECYCLED AND REUSED (M ³)	2016	2015
Water recycled	111,521	106,219
Water reused	54,212	28,113
TOTAL	165,733	134,332

COMPANIES	INITIATIVE	COST (€)	REDUCTION
Panzani	New pasteurisation equipment	30,000 €	400 m ³ /year
Riviana	New cooker	1,905,000 €	4.5 m ³ /t
TOTAL		1,935,000 €	

Biodiversity

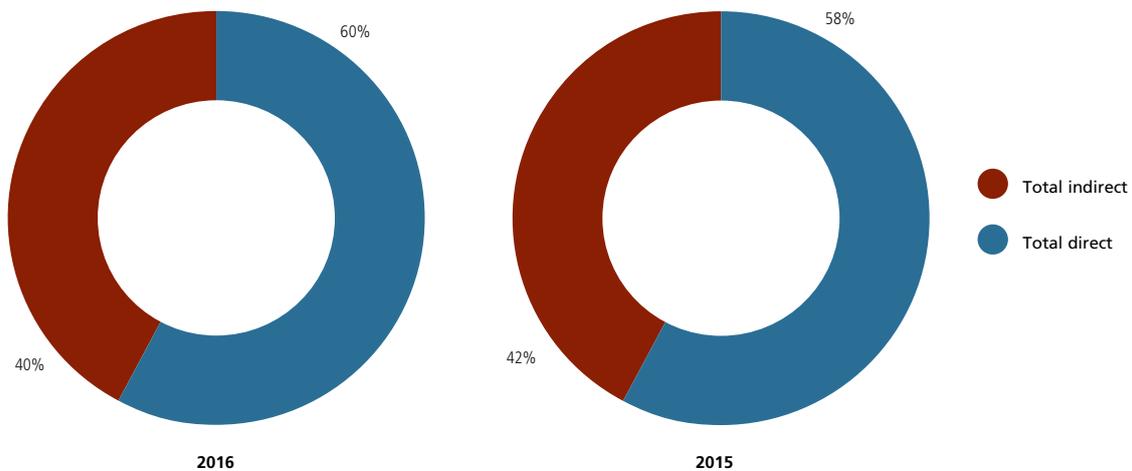
As established in the different strategies, plans and national action registers for biodiversity in the different geographical areas in which our production plants are situated, none of the Ebro Group companies has any operational site owned, leased, managed in, or adjacent to, protected areas or areas of high biodiversity value outside protected areas.

Emissions

Direct and indirect greenhouse gas (GHG) emissions (Scope 1 and 2) [EN15 / EN16]

GHG EMISSIONS (t CO ₂ -eq)	2016	2015
Direct emissions (Scope 1)	174,221	139,450
Indirect emissions (Scope 2)	114,791	102,216
TOTAL EMISSIONS (t CO₂-eq)	289,012	241,666

GHG emissions



Other indirect GHG emissions (Scope 3) [EN17]

In 2015 the Ebro Foods rice division contracted its main service provider, EccoFreight, which handles most of its shipments, to calculate the carbon footprint of the shipping of our raw materials and products.

This calculation is made using the tool Eccoprint developed by EccoFreight and has a gate-to-gate scope, including the transport (by rail and/or road) from the source plant to the port of departure and from the port of arrival to our plants.

During 2016, EccoFreight handled 74.5% of the shipments of the rice division, with a total of 197,161 tonnes shipped (9,965 TEUS), producing GHG emissions of 29,935 tonnes of CO₂-eq.

These emissions were not counted for calculation of the indicator EN18.

As from 2017, Ebro Foods will start using the Cool Farm Tool predictive model of Cool Farm Alliance, of which it is a member, to estimate the GHG emissions generated in the production of its agricultural produce, which account for over 50% of the carbon footprint of its products in the case of rice.

Environmental footprint of SOS

As a pilot project, the Spanish subsidiary of the Group, Herba Ricemills, calculated the environmental footprint of two SOS products in 2016, through their Life Cycle Analysis (LCA).

This study was made for a dual purpose:

1. Determine the categories of the most significant environmental impacts in two products with similar production and format features to a large number of products in the rice portfolio of the Ebro Group. This gives us a rough standard for measuring the environmental footprint of a large number of rice products.
2. Establish the respective value for each stage of the life cycle in order to determine the measures to be taken in our mitigation strategy.

Based on these two Life Cycle Analyses, two Environmental Product Declarations (EPD) were drawn up under ISO 14025 and registered in EnvironDec; they are freely accessible.

It should be noted here that Ebro Foods is the first rice producer in the world to register an EPD for rice products.



With regard to the GHG emissions for both products, as can be seen in the graphs in the “Climate Declarations” attached to the EPD, it has been determined that in practice they are all **scope 3 emissions** generated upstream (50%) or downstream (36%) from our own industrial processes.

EPD®

CLIMATE DECLARATION FOR ROUND RICE (SOS)

Declared unit: 1 kg of SOS round rice

The climate declaration shows the emissions of greenhouse gases, expressed as CO₂ equivalents. It is based on verified results from a lifecycle assessment (LCA) performed as basis for an EPD®, in accordance with ISO 14025.

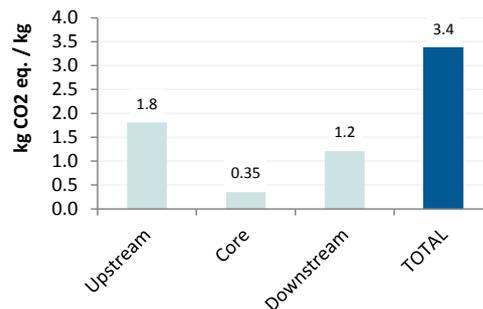
Information about the product

This EPD is about SOS round white rice cultivated and manufactured in Spain, and packaged in 100% recyclable materials.



Climate declaration

The table below presents the emissions of greenhouse gases, calculated as kg of carbon dioxide equivalents per kg rice using Global Warming Potential 100 years:



Information about the company

Ebro Foods is a leading Spanish food Group. Ebro operates in the production and marketing of high value-added products in the rice, pasta, sauces, ready meals, fresh potato and other related sectors.

The Ebro Foods Group is present in 72 countries through 23 subsidiaries that operate in Europe, America, Asia and Africa and its portfolio contains over 70 leading brands. Moreover, the Ebro Group has, through its subsidiaries, 42 industrial plants in 15 different countries and counts 5808 employees on average.

Other environmental information

This declaration is limited to one impact category. For information about other relevant environmental impacts, see the certified EPD available at www.virondec.com.

Contact information

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EPD PROGRAMME: THE INTERNATIONAL EPD® SYSTEM	REGISTRATION NO: S-P-00901	VALIDITY: 2019-05-03
PCR: 2013-04, V1.02	UN CPC: 231	PCR REVIEW CONDUCTED BY: THE TECHNICAL COMMITTEE OF THE INTERNATIONAL EPD SYSTEM
INDEPENDENT VERIFICATION OF THE DECLARATION AND DATA, ACCORDING TO ISO 14025: EXTERNAL VERIFIER: ANXO MOURELLE ÁLVAREZ		APPROVED BY: THE INTERNATIONAL EPD SYSTEM
LINK TO MORE INFORMATION: HTTP://WWW.virondec.com/en/detail/epd901		
CLIMATE DECLARATIONS FROM DIFFERENT PROGRAMS MAY NOT BE COMPARABLE		

EPD[®]

CLIMATE DECLARATION FOR LONG RICE (SOS)

Declared unit: 1 kg of SOS long rice

The climate declaration shows the emissions of greenhouse gases, expressed as CO₂ equivalents. It is based on verified results from a lifecycle assessment (LCA) performed as basis for an EPD[®], in accordance with ISO 14025.

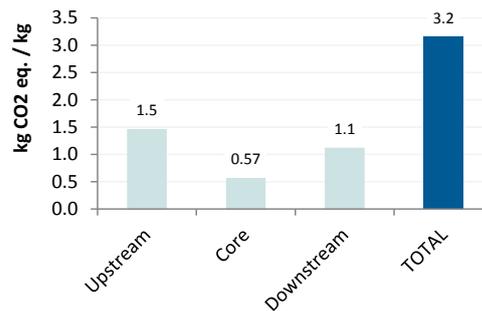
Information about the product

This EPD is about SOS long white rice cultivated and manufactured in Spain, and packaged in 100% recyclable materials.



Climate declaration

The table below presents the emissions of greenhouse gases, calculated as kg of carbon dioxide equivalents per kg rice using Global Warming Potential 100 years:



Information about the company

Ebro Foods is a leading Spanish food Group. Ebro operates in the production and marketing of high value-added products in the rice, pasta, sauces, ready meals, fresh potato and other related sectors.

The Ebro Foods Group is present in 72 countries through 23 subsidiaries that operate in Europe, America, Asia and Africa and its portfolio contains over 70 leading brands. Moreover, the Ebro Group has, through its subsidiaries, 42 industrial plants in 15 different countries and counts 5808 employees on average.

Other environmental information

This declaration is limited to one impact category. For information about other relevant environmental impacts, see the certified EPD available at www.environdec.com.

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EPD PROGRAMME: THE INTERNATIONAL EPD [®] SYSTEM	REGISTRATION NO: S-P-00902	VALIDITY: 2019-05-03
PCR: 2013:04, V1.02	UN CPC: 231	PCR REVIEW CONDUCTED BY: THE TECHNICAL COMMITTEE OF THE INTERNATIONAL EPD SYSTEM
INDEPENDENT VERIFICATION OF THE DECLARATION AND DATA, ACCORDING TO ISO 14025: EXTERNAL VERIFIER: ANXO MOURELLE ÁLVAREZ	APPROVED BY: THE INTERNATIONAL EPD SYSTEM	
LINK TO MORE INFORMATION: HTTP://ENVIRONDEC.COM/EN/DETAIL/EPD902		
CLIMATE DECLARATIONS FROM DIFFERENT PROGRAMS MAY NOT BE COMPARABLE		

The most important upstream emissions are generated in the production of our agricultural raw material (rice) and in this regard, as from 2017, Ebro Foods will gradually start using the Cool Farm Tool predictive model of Cool Farm Alliance (<https://coolfarmtool.org>), of which it is a member, both to estimate the GHG emissions generated by the production of its agricultural produce and to identify mitigation strategies and implement them with growers.

Our actions in respect of downstream emissions, generated in the preparation of the rice by the end consumer and the management of packaging waste, focus on consumer awareness campaigns, recommending them to follow the instructions and guidelines printed on the packaging for optimum cooking times and adequate-sized portions, and on how to discard adequately of the packaging for subsequent processing. In this context, we highlight the action Recipes4Change, developed together with the UN SDG-F. Full information on this can be found in the chapter Commitment to Society in this Report.

GHG emissions intensity [EN18]

	2016	2015
Total produced (t)	2,877,469	2,498,189
Total GHG emissions (t CO ₂ -eq)	289,012	241,666
GHG EMISSIONS INTENSITY (t CO₂-EQ /t PRODUCT)	0.1	0.097

GHG Intensity

2016



2015



**Emissions of ozone-depleting substances
[EN20]**

No ozone-depleting substances have been generated.

**NOx, SOx and other significant air emissions
[EN21]**

AIR EMISSIONS (t)	2016	2015
NOx	306	244
SOx	13	10
VOC	6	5
Particulate matter (PM)	5	20
TOTAL EMISSIONS (t)	330	279

Only the natural gas combustion (principal source) has been considered at our plants to calculate the NOx, SOx and VOC emissions.

The emissions of particulate matter reported are those produced in the handling of agricultural raw materials at our plants. These data are merely approximate since only six of our plants obtained a reliable figure. We are still working towards obtaining complete, consistent information on this point.

Effluent and waste

**Water discharge
[EN22]**

WATER DISCHARGED (M ³)	2016	2015
Process water and sewage	2,144,287	1,557,194
TOTAL EFFLUENT	2,144,287	1,557,194

DESTINATION OF WATER DISCHARGE (M ³)	2016	2015
Sewerage system or treatment facility	2,061,123	1,511,900
Surface water	83,163	45,294

Waste generation
[EN23]

WASTE (t)	2016	2015
Hazardous	66	31
Non-hazardous	23,916	17,752
TOTAL WASTE	23,982	17,783

All the hazardous waste is transferred to authorised waste disposal contractors for treatment according to the laws in place in each region.

Non-hazardous waste is separated by type and also handled by authorised waste disposal contractors, favouring recycling and reuse whenever possible.

Significant spills
[EN24]

No spills occurred in 2016.

Compliance / Expenditure and investment

Compliance with laws and regulations

Total compliance with the laws and regulations applicable to its activities is a basic principle 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.

Environmental certification and management systems

Apart from the three production plants of the French subsidiary Panzani reported in earlier years, the Garofalo plant (new acquisition) also has an environmental management system certified under the standard UNE-EN-ISO 14001.

COMPANY	COUNTRY	NAME OF PLANT	CERTIFICATE
Panzani	France	SEMOLINA GENNEVILLIERS	ISO 14001
Panzani	France	SEMOLINA MARSEILLE LITTORAL	ISO 14001
Panzani	France	SEMOLINA MARSEILLE ST. JUST	ISO 14001
Pastificio Lucio Garofalo	Italy	GRAGNANO	ISO 14001

Non-compliance, fines and sanctions
[EN29]

There has been no non-compliance with laws or regulations and no fines or sanctions.

Environmental protection expenditures and investment
[EN31]

	2016	2015
Expenditure in management and control	408,443 €	598,798 €
Investment to minimise environmental impact	3,417,258 €	942,927 €
TOTAL	3,825,701 €	1,541,725 €

The investments reported here include those mentioned in EN6 and EN10 for the reduction or optimisation of energy and water consumption, which are also considered environmental investments.