



Circularity and food loss and waste

Reducing the production of waste and increasing its recovery and reutilization in both the direct operations and the value chain by extending the life cycle of the materials.



100% recyclable Monticello packaging.

Management approach [GRI 3-3]	Progress achieved in 2022 [GRI 3-3]
Increasing the use of recyclable, reusable or compostable materials.	<ul style="list-style-type: none">• 87,2% of the total weight of the packaging solutions has been designed and manufactured using recyclable, reusable or compostable materials.
Strengthening the initiatives focused on the eco-design of wrappers and packaging.	<ul style="list-style-type: none">• Reduction of 379 tons in the consumption of packaging materials under the design-to-value (DTV) methodology, for a total accrued reduction of 3.395 tons since its implementation in 2013.
Designing and implementing initiatives focused on closing the cycle of post-consumption plastic materials.	<ul style="list-style-type: none">• 107,7 tons of post-consumption plastic packaging materials collected through the 'Nutresa Retoma' (Retake) Program in eight Colombian cities: Medellín, Barranquilla, Bogotá, Bucaramanga, Cali, Cartagena, Duitama and Pereira, and in Panama City.
Reducing food loss and waste in both the operations and the value chain.	<ul style="list-style-type: none">• 14,22% reduction in the food loss indicator and 44,01% decrease in the food waste indicator in the strategic region.
Strengthening the management of the food banks to reduce the food loss and waste.	<ul style="list-style-type: none">• 29 food banks were provided with support in capability development processes related to food handling, as well as food quality and safety control, in addition to the delivery of 1.232 tons across the entire strategic region.
Reducing the waste from Grupo Nutresa's operations that is disposed of into the environment.	<ul style="list-style-type: none">• 34,66% reduction in the production of the non-exploitable/ non-reusable waste shipped to the landfill per ton produced with regard to 2020 in the Company's industrial operations.

Risks and opportunities

[GRI 3-3]

The circular economy models reduce the pressure on the natural resources, generate benefits for both the Organization and the society, and stimulate innovation, competitiveness and growth. One of Grupo Nutresa's priorities is to implement circular models that maximize the efficient use of its resources and the adequate management of its waste and packaging materials.

To achieve this, the Business Units implement initiatives that contribute to reducing the waste output throughout the life cycle of the products, improving the economic performance and anticipating the actions required according to the regulations in the region, such as the laws governing the management of packaging and containers, the bans on the use of single-use plastics and the loss and waste of food.

More than 2.500 million tons of food are thrown away around the world each year, which represents more than 34% of all the food that is produced. In terms of the adverse impact on climate change, these emissions would be equivalent to more than 10% of the world's greenhouse gas (GHG) emissions. Additionally, the cultivable land used to produce food that ends up being wasted represents a threat to the planet's biodiversity.

Actions such as the optimization of the use of both edible food and the non-edible parts in the existing products, as well as the creation of new products with high nutritional values, will allow increasing the Organization's competitiveness, improving food security, generating opportunities for undernourished people to gain access to high-quality nutritious food, and contributing to reducing the emissions of GHG, in addition to decreasing the pressure on the water resources, the soil and biodiversity.

Future challenges

Grupo Nutresa makes progress in the fulfillment of its commitment to ensuring that 100% of its brands' packaging solutions are



Picking operation
at Novaventa in
Colombia.

designed to be recyclable, reusable or compostable by 2030, as well as reducing the disposal of waste into the environment to zero.

To achieve it, the Organization will continue implementing initiatives focused on life cycle analysis and the application of eco-design on new packaging structures that allow improving the cycle-closing rates. In addition, through partnerships, the Company will strengthen the packaging material recovery and reuse chains by networking with collective organizations such as the ANDI's Visión 30/30 in Colombia and Resimple in Chile. Grupo Nutresa will also maintain the development of recycling networks specially centered on complex-assessment materials.

To tackle the food loss and waste front, the Organization will focus its efforts on the recovery and reutilization, supported on the innovation and development departments as key processes to fulfill the commitments for 2030: reducing food loss by 30% per ton produced in its industrial operations; decreasing food waste by 50% per COP million sold; and achieving the maximum possible monetization of non-edible parts.

Moreover, the Company will make progress in the development of good agricultural practices in order to reduce the waste occurring in the sourcing processes, and boosting the productivity in the value chains. Fundación Nutresa and the Business Units will also continue working on building the capacities of the food banks as strategic partners in providing assistance to vulnerable populations.

Outstanding practices and recognitions



The 'Nutresa Retoma' (Retake) Program expands its presence to Panama

To contribute to the strengthening of the culture focused on the disposal, recycling and cycle-closing of plastic materials among all the stakeholders within the strategic region, the Company broadened the operation of the corporate program to Panama, and collected 6,6 tons of plastic materials in 2022.

In Colombia, the initiative comprises more than 561 collection centers in eight cities and continues facilitating the collection of packaging materials through the internal operations for the employees, and through Comercial Nutresa and Novaventa's Entrepreneurs for customers and consumers.

Thanks to the joint work with its stakeholders, the Company was able to collect 107,7 tons of post-consumption flexible plastic material in 2022, which were transformed into five playgrounds for the benefit of more than 5.000 children from educational institutions in the Colombian states of Antioquia and Cundinamarca.



CLICK HERE

to find out more about the program

Recovery and reutilization of post-consumption and post-industrial plastics by the Cold Cuts Business

Thanks to the circular economy strategy deployed by the Cold Cuts Business in Colombia, the Organization developed a recovery and reuse process for the post-industrial plastic materials partially smeared in product residue, which impeded their incorporation in the cycle-closing chains for plastics. With the installation of a wash line at the production nodes of the production plants, the materials are left in optimal conditions for closing their cycle. In addition to such packaging materials, the post-consumption plastic bags from the Tecnicarnes points of sale are also recovered to reuse them for deliveries and waste disposal. The implementation of this initiative enabled preventing 173 tons of materials from being shipped to the landfill in 2022.



Tribío, Grupo Nutresa's first circular economy intrapreneurship initiative

Based on the Transforming Life concept, Grupo Nutresa launched a brand into the market as the result of a corporate entrepreneurship project. With this launch, the Organization reasserts its commitment to circular economy and to finding new ways of utilizing all the by-products from the production processes of all its Business Units.

This initiative reduces the loss of food occurring in the industry through the transformation of by-products such as coffee grounds, mucilage, cocoa husk and wheat bran into products in the likes of biomaterials, edible utensils,

personal care products, energy, fashion and food.

The construction and adaptation of Gestión Cargo's production plant in Cartagena, Colombia, was started in 2022 with the purpose of incorporating two production lines and serving B2B customers. In addition, the Company launched into the market El Corral's edible spoon, an edition of 420.000 units for 97 restaurants in Bogotá and Chía, thus allowing consumers to enjoy their favorite milkshakes in a more conscientious way and reducing the usage of single-use plastics.

Material topic details

Grupo Nutresa enhances its strategy focused on managing packaging materials and waste by establishing initiatives aligned with international organizations such as The Consumer Goods Forum (CGF), with its Golden Design Rules, which provide guidelines for the eco-design of packaging and contribute to the fulfillment of the corporate goals regarding process circularity.

In 2022, the Company advanced by 1% in relation to 2021 progress in the goal set at 100% of recyclable, reusable or compostable packaging materials for 2030, and has laid particular interest on reinforcing the capacity-building efforts among all stakeholders to ensure sustainable packaging solutions. The following are some of the related actions that stand out:

- Implementation of the *'Eco-design manual for packaging.'* Since 2020, it has produced positive results with the strengthening of the internal culture focused on sustainable packaging solutions and the application of the eco-design simulator for the development of packaging solutions.
- Development of circular economy capabilities through the virtual training provided to 262 employees and 134 suppliers to share leading practices and standardize criteria within the sourcing chain.

Consumption of packaging materials

[GRI 301-1] [FB-PF-410a.1]

[FB-PF-410a.2]

The Company migrated 17 structures to recyclable packaging materials in Colombia, Mexico and Perú, for a total of 315 tons of recyclable materials supplied to the market. One of the changes was made in the chocolate confectionery portfolio in Mexico, where the Company migrated from polyvinyl chloride (PVC) to polyethylene terephthalate (PET), which is a closed-cycle material. This action prevented 73 tons of PVC from being supplied to the market.



A commitment to both people and the planet

A different world that begins with a transformative vision regarding the materials based on the circular economy model, that is Tribio's proposition. This idea emerged as a corporate entrepreneurship project within the Pastas Business. In 2018, a team gathered to figure out how could they add value to wheat bran, a **byproduct of which 84 tons were generated every day** to only be sold at low prices for animal feed production.

That was how the team consolidated the idea and submitted it to Out of the Box, Grupo Nutresa's program focused on disruptive innovation projects, eventually being selected as the program's winning project. Ever since then, this business has been growing and materializing the consolidation of a **circular model where the main raw materials are the biodegradable waste resulting from the production of pasta, coffee, meat and chocolate.**

In 2019, the team explored **multiple ecosystems that could foster the idea they had in mind**, eventually finding the

valuable guidance of ITENE, a Spanish research center that is at the forefront in the field of sustainability. Additionally, Universidad del Cauca worked with the team in developing the idea to create a spoon-type prototype, which is already being used by El Corral.

Today, the team has secured two patents, which were the result of combining biomaterials and wheat bran, and have two production lines in Gestión Cargo, in Cartagena, centered on the production of biopellets, which are used as input to manufacture containers, bottles or rigid applications that replace plastics.

The team highlights the impact the project has and will have not only in reducing the environmental footprint and boosting sustainability within Grupo Nutresa, but also as a **B2B business opportunity where biopellets are commercialized as environmentally friendly raw materials.**

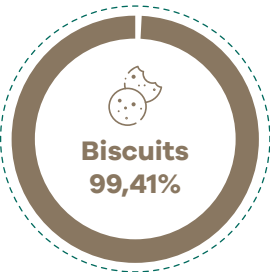
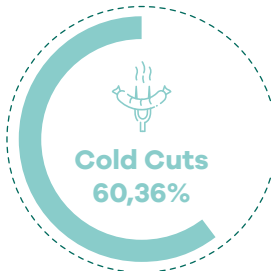
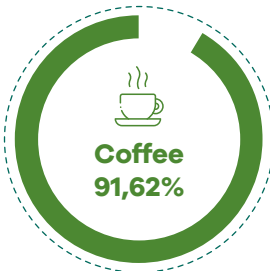
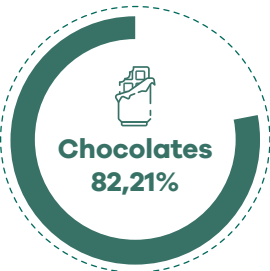
Claudia Collazos
special project leader.

Pilar Castrillón
Tribio's business leader.

Furthermore, the Organization has six reusable packaging material models: three related to the cardboard boxes of the Chocolates and Biscuits Business Units through Novaventa and Comercial Nutresa, and Comercial Nutresa with its other customers and commercial agents, who prevented the consumption of 215 tons of cardboard; two in the Cold Cuts Business, one consists in reusing the secondary bags in the maquila process of one of its corn product items for exports, and the other

one consists in reusing the smoked mesh in the deli meats operation (both of them prevent the consumption of 14 tons of packaging materials); and the last one in the Retail Food Business in the Dominican Republic, where since 2021 more than one million two-gallon containers have been reused by the production plant and the points of sale. This initiative was acknowledged in 2022 by the country's National Council of Private Companies (Conep).

Share of closed-cycled materials used by each Business Unit



Employee from the Cold Cuts Business in Colombia.

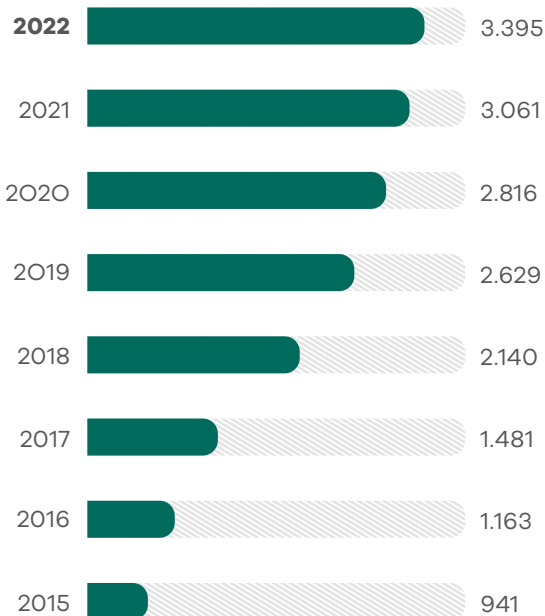


Reduction in the consumption of packaging materials

With the implementation of the design-to-value (DTV) methodology, the Company has been able to decrease the use of packaging materials by 379 tons in 2022, for a total accrued reduction of 3.395 tons in ten years the methodology has been in place. This decrease was possible thanks to efficient design that takes into account the attributes valued by consumers, the behavior of the market in general and the context of the entire value chain.

The Organization implemented 20 initiatives in the category of flexible packaging materials and 13 more in the category of corrugated cardboard boxes in Chile, Colombia, Costa Rica, Peru and Mexico. These initiatives allowed achieving reductions of 103 tons in the consumption of plastic materials and 123 tons in the use of cardboard. In addition, it is worth highlighting the replacement of small cardboard boxes for the fries in the Retail Food Business in Colombia with recyclable bags, which allowed reducing the consumption of materials by 28 tons.

Reduction in the consumption of packaging materials in tons



Recycled materials used

[GRI 301-2] [FB-PF-410a.1] [FB-PF-410a.2]

To boost the circular economy processes for the packaging solutions, the Organization favors the materials that include a content of recycled raw materials in its composition. Therefore, 74% of the cardboard, 47% of the glass and 51% of the metal packaging materials used in 2022 by Grupo Nutresa in Colombia included recycled materials. In the case of cardboard boxes that do not contain recycled materials, the Company worked with suppliers that hold sustainable production certifications, such as the Seal of the Forest Stewardship Council (FSC), which is why 100% of the materials used in the cardboard boxes are recycled or have certified virgin fibers.

Products and packaging materials recovered

[GRI 301-3] [FB-PF-410a.1] [FB-PF-410a.2]

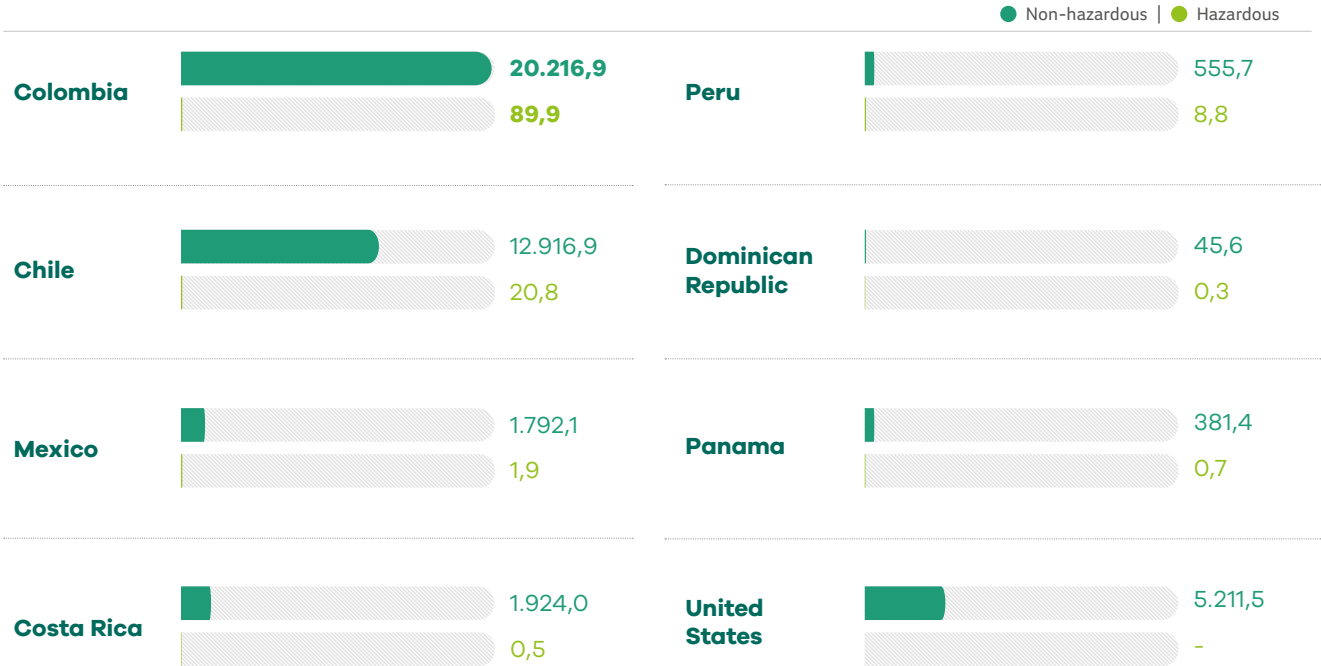
The Organization continues working on the design and execution of initiatives focused on closing the cycle of post-industrial and post-consumption packaging materials. The Coffee Business in Colombia has been able to recover and transform 8,3 tons of post-consumption packaging materials in the Colombian Atlantic coast region by means of its packaging material recovery model linked to the Sello Rojo brand. Additionally, through other post-consumption packaging projects, such as the 'Nu-



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to read the Sustainable Packaging Policy

tresa Retoma’ (Retake) Program, four tons of flexible plastic material and 4,5 tons of Nutresa Express Pods were transformed.



Total weight of waste
[GRI 306-1][GRI 306-2] [GRI 306-3]
[FB-RN-150a.1]

Within the framework of the circularity strategies, the management of waste in the operations is a fundamental part of the efforts focused on reincorporating the reusable materials into the production chain.

In 2022, Grupo Nutresa reduced the waste that is shipped to landfills and the security-cell waste by 34,66% in relation to 2020, which is equivalent to 5.563 tons of waste that the Company avoided disposing of into the environment. In addition, from the 52.183 tons of waste produced in the industrial operations, 93% was re-purposed or used to generate energy [GRI 306-4] [GRI 306-5].

The progress that has been achieved correspond to the implementation of recovery and reutilization projects for different types of waste, as it is the case of contaminated plastic, a type of waste that the Chocolates, Ice Cream and Retail Food Business Units have been able to include in the recycling chain thanks to partnerships established with external local waste managing agents. Additionally, thanks to this achievement, the Company prevents more than 63 tons of waste from being shipped to landfills.

Moreover, the Chocolates, Biscuits and Cold Cuts Business Units, through partnerships formed with specialized managing firms, have utilized approximately 105 tons of common and hazardous waste to generate energy, thus reducing the waste disposal to landfills or security cells. For its part, Comercial Nutresa makes progress in the implementation of the zero garbage management system at 24 campuses, recovering and reutilizing 83% of the waste and preventing 74,8 tons of waste from being disposed of into the environment every year.

Lastly, the partnerships set up with multiple suppliers enable the formulation of cycle-closing strategies that reduce the production of waste. The Coffee Business production plant in Medellín, by leasing certified wood pallets for transporting products both inside and outside the Company’s premises, avoided the production of 31 tons of residual wood, as well as the purchase of this supply by the production plants. Additionally, the Chocolates Business, at its production plant in Rionegro, reduced the textile waste by 4,6 tons by means of an outfitting donation to rural communities in the Eastern Antioquia region in Colombia for their farming activities.

Managing food loss and waste

Grupo Nutresa has implemented a food loss and waste reduction management model based on a policy that guides its actions and those of all its companies in this regard. The objective of this system is to contribute to the improvement of food security, maximize the amount of food available for human consumption and promote actions that lead to the transformation of non-edible parts into a source of food.



To fulfill its purpose, Grupo Nutresa designed a model for classifying the food that is lost or wasted in its operations. The measurement is based on the accounting and reporting standard for food loss and waste published by the Food Loss Waste Protocol (FLW Protocol), a model that has been implemented across the entire strategic region. This process allows proposing and deploying reduction initiatives and monitoring the indicators that have been established.

The initiatives implemented by Grupo Nutresa's Business Units allowed achieving a 14,22% reduction in food loss per ton produced and a 44,01% decrease in food waste per COP million sold.



Employees from the Biscuits Business in Colombia.

Food loss and waste by type [FB-FR-150a.1]

Type of food	Loss		Waste	
	2021	2022	2021	2022
Edible	11.191,70	14.508,9	3.086,9	3.010,8
FLW prevented	11.000,90	13.855,5	2.940,9	2.904,3
FLW discarded	190,80	653,4	146,0	106,4
Non-edible parts	104.194,90	134.911,3	0,0	0,0

Note: The term "edible food" refers to the food included in the formulation of the products manufactured and commercialized by Grupo Nutresa. The term "non-edible parts" refers to the food that, generally speaking, are not included in the final product; for instance: wheat husk, coffee grounds and bones. * The operations of Abimar and Cameron's Coffee are not included.

The measuring exercise conducted in 2022 allowed the Organization to find out that the products that are lost or wasted the most are cookies and crackers and cookie and cracker dough, cold cuts products and deli meats, and traditional pasta products. Regarding these products, 87,8% of them are used for animal feed, 7,9% in aerobic processes and composting, and 4,3% are sent to the landfill and other disposal methods.

Baseline and progress made in reducing food loss and waste

[FB-FR-150a.1]

	Loss (kg/t.p.)		Waste (kg/COP million)	
	2021	2022	2021	2022
Cold Cuts	6,0	5,7	0,56	0,46
Biscuits	19,0	16,2	0,46	0,34
Chocolates	3,6	4,4	N/A	N/A
TMLUC	18,0	24,4	0,2	0,07
Coffee	0,9	0,8	N/A	N/A
Ice Cream	8,2	7,6	0,47	0,42
Pastas	2,9	2,9	N/A	N/A
Retail Food	8,1	8,8	0,04	0,02

Transformation efforts by all Business Units

The Company makes progress in all the operations of its Business Units through initiatives that seek the transformation of by-products with the aim of using them to make new products that can be reincorporated into human feeding processes. Moreover, the Organization has been focusing on reducing the loss occurring both at the production plants and along the value chain through improvement cycles. Additionally, Grupo Nutresa has implemented actions in the production processes that generate loss with the aim of identifying the possible causes and correcting them to prevent possible machine failures, thus avoiding losses and waste.

Research and development have been key strengths in transforming the perspectives around this subject, converting what was previously lost into new products. A good example of this is the production of dairy beverages based on the surplus from cheese production. This has driven Grupo Nutresa to be more efficient and to recognize the potential of its production plants for changing the processes and taking the reduction of

food loss and waste to another level.

The control of the industrial processes in search of their optimization prevents the Company from shipping an average of 1,700 tons of food suitable for human consumption to landfills every year. The food recovery processes in Grupo Nutresa's Business Units enabled the distribution of 1.232 tons of food, benefiting more than 1.530.065 people in Colombia, Chile, Ecuador, Costa Rica, Guatemala, Nicaragua and the Dominican Republic. This was achieved with the collaboration of the food banks, whose main focus is to reduce food insecurity. To find out more about the work carried out with the food banks, you may read the chapter on food security.

These same processes are deployed in geographies such as Chile, Mexico, Costa Rica, Ecuador and the Dominican Republic, where the Organization carries out actions that contribute to the fulfillment of the objectives of SDG 2, Zero Hunger, working jointly with partners such as the academic sector, international cooperation bodies and local public organizations through working groups focused on food security, healthy lifestyles and the reduction of food loss and waste.