



## The Role of Processed Foods in a Sustainable Food System

A sustainable food system lies at the heart of the UN Sustainable Development Goals (the SDGs). The UN Food and Agriculture Organization (FAO) describes a sustainable food system as “a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised.”<sup>1</sup>

Food systems are complex and diverse, involving everything from the field to the fork. The processed foods sector makes up a vital part of the food supply and accounts for a significant share of income generation and employment and is essential to maintaining a steady global supply of safe, nutritious and affordable foods and a key to supporting food security and nutrition.<sup>2</sup>

As leading global food and beverage manufacturers, we recognize the critical role the food industry plays to help establish a sustainable food system that aims to advance food security, protect the environment and support economic opportunity while delivering nutritious and sustainable diets to consumers around the world. We are committed to doing our part and using our global reach and scope to help shape a better and healthier world for people and the planet.

### Processed food is central to a sustainable food system

Processed foods are a vital part of the world’s food supply and make a significant contribution to society by providing nutritious, accessible and affordable foods; ensuring food safety; supporting sustainable agricultural productivity; helping to reduce the environmental impact of manufacturing operations; helping to reduce food loss and waste; and contributing to food and nutrition security.

Access to food is one of the biggest challenges we face globally, with some areas being deprived of even the basic foods. Preservation and storage techniques to help improve food security by contributing to the resilience of foods so they can be transported to rural or remote areas of developing countries that may experience intermittent shortages and/or drastic seasonal fluctuations in the availability of local foods<sup>3</sup> and can help to alleviate some problems of malnutrition due to poor food distribution.<sup>4</sup>

## *Environmental sustainability*

Agriculture is the foundation of the food system. To ensure a sustainable food system, a more efficient, resilient and sustainable agricultural system will be critical.

As food and beverage manufacturers, we rely on the ecosystems in which crops are grown and helping to protect and restore biodiversity is central to our work with farmers and suppliers and essential to food production.

Members of the International Food & Beverage Alliance are working to help reduce the environmental impact of their operations while fostering a sustainable food system – one that delivers food security and safe, nutritious foods for people around the world. Given the breadth and scope of the processed food industry, the standards and practices we employ can positively influence the environmental, social and economic impacts of agriculture worldwide.

**Biodiversity and sustainable sourcing:** As we innovate more nutritious food choices while using fewer natural resources, IFBA members are working to enhance environmental standards and create secure sustainable agricultural supply chains in ways that aims to protect and restore biodiversity, promote equity and social well-being, improves rural livelihoods and empower women and builds thriving communities.

**Climate action:** Within their agricultural and manufacturing operations, several IFBA members are working to implement strategies and technological innovations to reduce greenhouse gas (GHG) emissions – efforts aimed at sourcing agricultural raw materials such as palm oil, cane sugar, cocoa and soy in a way that helps promote agricultural resiliency; to help limit emissions from deforestation; working with farmers and suppliers to implement better practices on-farm by producing ingredients more efficiently and employing natural climate solutions; and helping to accelerate the use of energy from renewable sources in their plants and transportation and reducing packaging emissions. For example, the Food & Drink Federation in the UK reported a decrease in carbon dioxide emissions in 2017 of 53% from their 1990 baseline. <sup>5</sup>

**Water stewardship:** is an integral part of members' efforts to reduce the environmental impact of their operations. Members have adopted integrated approaches to water management that include goals to improve water use efficiency in agricultural and manufacturing operations; treat and recycle waste water; create a healthier watershed by replenishing the water consumed; and help safeguard the human right to water and sanitation in the communities in which we operate.

**Food loss and waste:** About one-third of all food produced globally is lost or wasted each year. <sup>6</sup> Food loss is both an environmental and economic issue. Given the resources used to produce and distribute food – in water, land, energy and fertilizers, as well as the GHG produced, reducing food loss and waste is essential to the sustainability of the food system, to improved food security and the reduction of the environmental impact of food production.

As members of the Consumer Goods Forum, IFBA companies have committed to halving food waste by 2030 in their manufacturing operations, as well as supporting food waste reduction at consumer level and across their supply chains, in alignment with UN SDG 12.3.

IFBA members are taking a variety of innovative steps along the value chain from the farm to production to consumption to disposal to help reduce the environmental impact of food waste and improve food security - providing training and technical expertise to help farmers reduce pre- and post-harvest losses; improving infrastructure and energy use at the production, storage and transport levels for the efficient delivery of raw materials; reducing waste to landfill; educating consumers with initiatives to promote food waste prevention and reduction such as clearer labels to help remove consumer confusion around consumption dates (only 37% of people know the difference between “use by” and “best before” dates <sup>7</sup>); and partnering with food banks around the world to rescue and redistribute food to those in need.

**By-product utilization:** Food processing technologies are turning by-products from processing which would otherwise be wasted into value-added products with high functional and sensory qualities, e.g. proteins from defatted bran represent a valuable nutrient and can be used for preparing protein-enriched flour substitutes in biscuits; <sup>8</sup> bran and germs derived from the processing of cereals are incorporated into grain-based foods; <sup>9</sup> whole apple pomace (containing pulp, seeds and stems) is ground into flour used to fortify cookies enriched with dietary fibres and flavonoids; <sup>10</sup> are broccoli leaf powder is used as a source of a beneficial protein isolate that results in good gluten substitution in baked goods. <sup>11</sup>

**Packaging:** helps make high-quality products safe and accessible, extends shelf-life and helps reduce waste at various stages along the food supply chain. IFBA members are working to support a circular economy by optimizing package design and sourcing materials that perform and protect with minimal packaging, helping to minimize the environmental impact and reduce CO2 emissions; supporting sustainably sourced paper-based packaging; and increasing the use of recycled content and alternative packaging materials. IFBA members have committed to ensure that 100% of packaging will be designed to be recyclable, reusable, compostable or biodegradable by 2025 or 2030. At the end of 2022, members were 87% of the way there.

Research and innovation in alternative packaging is *expected to* provide solutions to extend shelf-life, making foods more likely to be purchased and consumed while producing less waste at the retail and consumer levels. <sup>12</sup>

### ***Economic and social sustainability***

The agri-food sector is one of the world’s largest economic sectors. Agricultural development is one of the most powerful tools to end extreme poverty, boost shared prosperity and feed a growing population. <sup>13</sup> Growth in the agricultural sector is two to four times more effective in raising incomes among the poorest compared to other sectors. <sup>14</sup>

Processed foods and the processed food sector make important contributions to the economy in terms of income generation and employment and dietary patterns worldwide.

In 2022, the global packaged food market accounted for 35% of the total food market globally. <sup>15</sup>

Food and beverage is the leading sector in terms of manufacturing value added in 16 OECD countries and in 2017 ranked among the top three manufacturing sectors in 27 OECD countries and employed approximately 9.5 million people. <sup>16</sup>

In the EU, the food and beverage industry is one of the largest manufacturing industries and the leading employer. In 2022, the industry contributed 1.9% to the EU gross value added and 9.2% of value added in the EU manufacturing industry; invested £1.9 billion in R&D and employed 4.6 million people. SMEs accounted for 40% of the food and beverage turnover and provided more than half of jobs. <sup>17</sup> The EU food supply chain employed 21.5 million people. <sup>18</sup>

In the U.K., food and beverage is the largest manufacturing sector, annually contributing £31.1 billion to the economy and employing 450,000 people. <sup>19</sup>

In the U.S., the food and beverage manufacturing sector employed 4.3 million farm and non-farm people. <sup>20</sup>

Food processing also accounts for an important share of income generation and employment in the OECD, emerging and less developed countries, including through participation in international trade and global value chains. Current patterns of international trade reflect the evolution of food processing technologies, consumer demand for year-round access to a wider variety of foods, longer food chains and increasing integration into global value chains. The trade of processed food products and participation in global value chains has the potential to increase domestic value added and employment opportunities in the processing agricultural sectors as domestic producers can take advantage of foreign demand for transformed and differentiated food products. <sup>21</sup>

**Farmer livelihoods:** Several IFBA members are partnering with governments, UN agencies and NGOs globally to help improve the livelihoods of people within their agricultural supply chains and communities – developing approaches to support economic prosperity and empowering women entrepreneurs on a path to a sustainable living income by helping to improve productivity to enhance farm resilience, providing training and technical support and helping to diversify and accelerate income streams.

**Human rights:** Respect for human rights is a fundamental value of all IFBA members and applies across all aspects of our businesses – from our own operations and throughout the supply chain. Each member has adopted human rights policies and codes of conduct which apply to their employees, their suppliers and the communities in which they operate. These policies are based on international conventions including the UN Declaration of Human Rights, the International Labour Organization Declaration on Fundamental Principles and Rights at Work and the UN Guiding Principles on Business and Human Rights, among others. Human rights policies cover issues such as diversity and inclusion, freedom of association and collective bargaining, health and safety, forced labour, child labour, work hours and

wages and benefits. Supplier codes of conduct cover areas such as business integrity, labour practices, health and safety and environmental management.

## Conclusion

Food processing has been instrumental in delivering safe, nutritious and affordable foods and beverages to more populations around the world and helping to tackle two of the world's biggest challenges: access to food and malnutrition. IFBA members will continue to make nutritious, safe, sustainable and affordable foods and beverages and help consumers achieve balanced and sustainable diets.

We will also continue to leverage our scale and expertise to help reduce the environmental impacts of our operations and support economic opportunity and social equity while building a sustainable food system.

However, we cannot do it alone. Collaboration and meaningful partnerships among all stakeholders - governments, business, scientists, academia, civil society and every player along the food chain – from farmers to producers to retailers to consumers – is essential if we are to realize a healthy, sustainable and inclusive food system capable of achieving the world's development goals.

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<sup>1</sup> Food and Agriculture Organization. Sustainable food systems: Concept and framework. 2018

<sup>2</sup> OECD. Making Better Policies for Food Systems. 11 January 2021

<sup>3</sup> OECD. Making Better Policies for Food Systems. 11 January 2021

<sup>4</sup> Conway C. One billion hungry: can we feed the world? Ithaca, NY: Cornell University Press, 2012.

<sup>5</sup> Food and Drink Federation, 2018

<sup>6</sup> World Food Programme. 5 facts about food waste and hunger. 2 June 2020

<sup>7</sup> [11 Facts About Food Waste | Respect Food GRUNDIG | Respect Food](#)

<sup>8</sup> Capozzi F. Food Innovation in the Frame of Circular Economy by Designing Ultra-Processed Foods Optimized for Sustainable Nutrition. *Front Nutr.* 2022 May 3;9:886220. doi: 10.3389/fnut.2022.886220. PMID: 35592637; PMCID: PMC9113194.

<sup>9</sup> Luithui Y, Baghya Nisha R, Meera MS. Cereal by-products as an important functional ingredient: effect of processing. *J Food Sci Technol.* 2019 Jan;56(1):1-11.

<sup>10</sup> Zlatanović S, Kalušević A, Micić D, Laličić-Petronijević J, Tomić N, Ostojić S, et al. Functionality and storability of cookies fortified at the industrial scale with up to 75% of apple pomace flour produced by hydration. *Foods.* (2019) 8:561.

<sup>11</sup> Krupa-Kozak, U.; Drabińska, N.; Bączek, N.; Šimková, K.; Starowicz, M.; Jeliński, T. Application of Broccoli Leaf Powder in Gluten-Free Bread: An Innovative Approach to Improve Its Bioactive Potential and Technological Quality. *Foods* **2021**, *10*, 819.

<sup>12</sup> Versino F, Ortega F, Monroy Y, Rivero S, López OV, García MA. Sustainable and Bio-Based Food Packaging: A Review on Past and Current Design Innovations. *Foods.* 2023 Mar 2;12(5):1057

<sup>13</sup> World Bank. 19 September 2023.

<sup>14</sup> World Bank. 19 September 2023.

<sup>15</sup> Future Markets Insights (FMI), October 2022.

<sup>16</sup> OECD. The Contribution of the Processed Food Sector to the Triple Challenge. 7 December 2020.

<sup>17</sup> FoodDrinkEurope, Data & Trends of the European Food Drink Industry 2022. 16 December 2022

<sup>18</sup> FoodDrinkEurope, Data & Trends of the European Food Drink Industry 2022. 16 December 2022

<sup>19</sup> Food & Drink Federation. Food & Drink Industry Report 2020.

<sup>20</sup> [USDA Economic Research Service. Food and beverage manufacturing.](#)

<sup>21</sup> OECD. Making Better Policies for Food Systems. 11 January 2021