

Kantar Report Overview

Creating a climate-resilient fresh produce and floral sector

Future proofing for climate risks, regulatory pressures & consumer expectations

The International Fresh Produce Association has partnered with Kantar in the creation of a strategic framework and prioritization model to aid in the futureproofing of the fresh produce sector. In building the framework we have considered the sustainability risks that the industry is facing, in particular those relating to climate change, as well as the external pressures it is experiencing from consumer expectations and changing regulation.

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What our industry is facing

Despite a world a world in flux and a looming climate crisis, our industry may have a massive opportunity going into the future: the demand for fresh produce is expected to increase dramatically.

As an agricultural industry, climate change presents several threats to production and supply chain logistics. However, with a growing global population and a promising shift towards plant-based eating globally, fresh produce will be more important than ever to feeding our population

Demand for fresh produce to increase

The world population is growing and projected to reach almost **10 billion people by 2050.**



Global population in 2050
+20%

Plant based diets reduce GHG emissions
+8.0%

The diets we have now and the food production system we utilize now will need to change drastically in order to guarantee food security and stay within environmental limits. This is reflected in new solutions being put forward such as the EAT Lancet Planetary diet, which emphasizes plants.

A world in flux

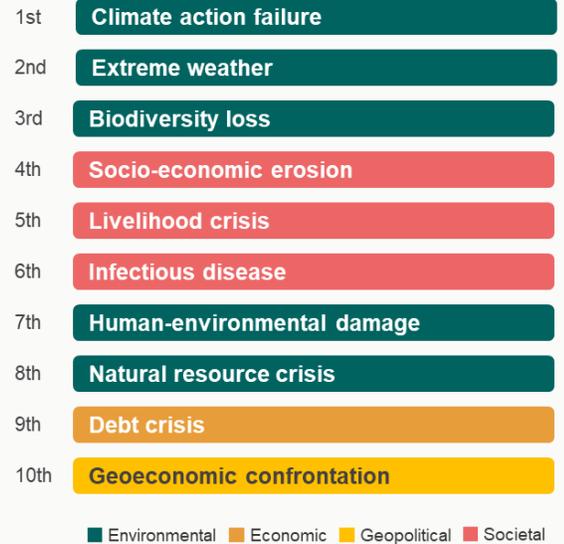
84% of experts have a worried or concerned outlook for the world

According to the World Economic Forum’s global risks report from 2022 (a survey completed by nearly 1,000 global experts and leaders and including the views of 12,000 country level leaders covering 124 countries), almost 9 in 10 respondents say they are at least somewhat worried about the future of the world, and half of the top 10 perceived risks to the world as we know it are in some way climate and environmental risks.

By 2024, the global economy is projected to be 2.3% smaller than it would have been without the pandemic

Commodity shocks, price instability and debt crises remain critical medium-term concerns. Already, commodity prices are 30% higher than 2020, and could remain volatile as a result of tensions across the globe, China’s energy shortages, continued supply chain disruptions, and transition challenges from divestment in fossil fuels.

The most severe risks on a global scale over the next 10 years



Extreme weather events are projected to continue

Global temperature in 2030: +1.5°C

- Heatwaves **+4.1X**
- Droughts **+2X**
- Extreme rainstorms **+1.5X**

The world is seeing extreme weather events occurring more frequently, and in turn, this has and will continue to have severe implications on our sector

We are currently on a path to a global mean temperature rise in the range of 1.5 to 4.5°C by the end of the century. The higher end of this range would push agriculture far beyond manageable thresholds.

The agricultural sector’s own interests are best served by implementing ambitious approaches to mitigation, ensuring that key temperature thresholds are not crossed, while also working to enhance adaptive capacity to inevitable temperature rises and associated, frequent, extreme climate events.

Our industry impacts and is impacted by climate change

Impacts by produce

The agricultural industry overall contributes to climate change – via use of natural resources and greenhouse gas emissions. GHG emissions from agriculture comprised about 10–12% of global GHG emissions in 2010. Livestock production is the significant contributor to GHG emissions, while fresh produce is a relatively small contributor.

Shift to plant-based diets  **Major opportunity for produce and the planet!**

Impacts on produce

Extreme climate events are combining with long-term trends including rising temperatures and changes in precipitation patterns, with broad implications for the agricultural sector. While climate related implications are already playing out in the fresh produce sector, this is bound to intensify without mitigation, resulting in:



<p>Reduced security and quality of freshwater resources</p> 	<p>Reduced crop yields and increased waste</p> 
<p>Higher prices and enhanced market volatility</p> 	<p>Damage caused by pests</p> 
<p>Destruction and/or disruption of infrastructure</p> 	<p>Falls in labour productivity, particularly in humid climates</p> 
<p>Shifts in production areas</p> 	<p>Fundamental changes in crop management</p> 



Consumer Expectations

Consumption is changing towards new and more sustainable behaviors that will impact fresh produce.

CONSUMERS FEEL URGENCY AROUND CLIMATE CHANGE

In Kantar's 2022 Global Issue Barometer, people were asked "what are the big issues happening in the world right now that needs solutions?" After the economy, which we know is a huge worry around the world, climate issues are in second place, ahead of issues including social problems, war, unemployment, violence, and health. This issue is top of mind, and people are demanding solutions.

CLIMATE ISSUES A SHARED RESPONSIBILITY

There is a strong sense of shared responsibility between governments, the general public and businesses to tackle climate issues.

Responsibility to solve climate issues

Governments 82%

The General Public 75%

Companies 64%

Consumers expect governments, the general public, and businesses to step up and tackle the lion's share of these issues, with less responsibility allocated to international organizations and the media.

While government and the public are being held to account, it is imperative to recognize that companies and businesses are also seen as responsible parties by consumers. As a result, we are seeing increasing commitments from leading businesses across categories and across the globe to solve climate change.

ACTION AREAS FOR BUSINESSES



The United Nations’ 17 Sustainable Development Goals provides a universal framework for prioritizing sustainability actions across environmental, social and economic spheres. Based on Kantar’s Global Sustainability Sector Index 2022 study done in 38 countries across the world, consumers want businesses to tackle 7 areas of the SDG framework, 5 of which directly pertain to climate change and our industry:

- Zero Hunger
- Clean water and sanitation
- Responsible consumption and production
- Climate action
- Life below water

CONSUMERS ARE ENGAGING IN SUSTAINABILITY



A large majority of consumers want to make better purchase decisions and are paying attention to what brands are doing to tackle sustainability and climate change challenges. This is true especially in Asia, where almost 90% of consumers say they pay attention to the causes brands support when making purchase decisions. This provides an opportunity for producers and suppliers to differentiate themselves in the marketplace, knowing that brands are important in driving purchase decisions.

84%

take note of the causes brands support when making purchase decisions

However, consumers will not be leading the transformation!

They look to businesses to lead the way and help them overcome significant barriers to sustainable consumption. These barriers include affordability, awareness and knowledge. Environmentally friendly products must be made accessible to the mass market to have positive environmental impact. Consumers find it hard to tell which products are good or bad ethically, or for the environment – so communication and labelling will be crucial to helping consumers make positive changes.



Retailer perspectives

Retailers are balancing multiple sustainability frictions across the supply chain. Getting it right is challenging but necessary for future proofing the sector.

On the one side, retailers are balancing suppliers' sustainability challenges, including unpredictable environment and climate conditions, financial implications of implementing sustainable farming practices, and traceability. On the other side, consumers' wide ranging expectations impact demand and sourcing decisions.

Retailers are at different stages in their sustainability journey

Influenced by numerous factors – region, geographic footprint, size of retailer, type of produce sourced, regulations, financial and economic situation etc.



Stage 1
Starting
the
journey

- Awareness of sustainability but limited understanding and this is not driving decision making and sourcing
- Provide basic communication of sustainability information (often influenced by regulations)
- Focused on the current reality

Stage 2
On the
journey

- Sustainability and sustainable farming practices may influence sourcing
- May have sustainability agenda and/or teams driving agenda
- Not necessarily actively driving change in the industry nor placing importance on certification
- Focused on current reality

Stage 3
Leading
the
journey

- Sourcing strongly influenced by sustainability considerations
- Have invested behind sustainability: internally (e.g. have senior leadership in place to drive agenda and sustainability is part of corporate strategy) and externally (e.g. funding initiatives within/outside industry)
- Actively driving change and/or certification
- Future focused

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Even though we are seeing a hiatus to some extent because of the cost of living crisis and economic circumstances in how customers value sustainability, I do think that customers expect retailers to actually figure out and start catering to them with better products and more sustainable products.

IFPA Retailer

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There are three 'sustainability expectations' that retailers control and actively drive

...but never at the expense of quality



- Formal or informal processes in place to ensure minimum requirements are met, e.g.. health and safety standards and ethical/sustainable farming practices
- May require external certification to be considered for supplier selection



- Sourcing locally (local for consumers is synonymous with 'sustainable')
- Maximizing efficiency of supply logistics and focusing on reducing carbon emissions



- Careful consideration of packaging quantity and material used

Sustainable farming practices are expected, but are not a top driver of supplier selection

- Sustainable farming practices, at a minimum aligned with regulations, are expected and therefore are not necessarily a differentiator across complying producers
- Key to retailers' sourcing decisions is the supplier relationship, with selection criteria and priority driven by consumer expectations and demands
 - Quality (including flavor, texture, aesthetics, freshness, product stability)
 - Availability and consistency/stability of supply
 - Price
 - Variety
 - Place of origin (local production = 'sustainable')
 - Brand



Broader communication about sustainable farming, and the effort and impact made, can be used to drive competitive advantage and demand not only for retailers, but also for producers. In addition, it will help raise awareness and relevance and ultimately mobilize the industry towards a climate resilient future.

Regulations impacting our industry

While consumer shifts in values, expectations, and behaviors will shape how our industry prioritizes climate resilience, changing legislation and regulatory pressure will also have a significant impact.

Leading regulatory pressures affecting our value chain



Short term	Medium term	Long term
2025	2030	2050

Input & production

- Seeds (Short – Long term)
- Water conservation (Short – Long term)
- Pesticide usage (Short – Long term)
- Crop Management (Short – Long term)
- Soil protection (Medium – Long term)
- Traceability (Short – Medium term)
- Waste Management (Medium – Long term)

Packaging & storage

- Sustainable / recyclable packaging (Short – Long term)

Distribution & retail

- Traceability (Medium – Long term)
- Quality and waste management (Medium – Long term)
- Product Claims (Long term)

The bulk of regulations focus on input and production. Packaging and waste regulation is also important to be aware of. And finally, traceability and claims are going to be increasingly important in the medium to long-term.

Interestingly, not all these existing or pending regulations are 'restricting' or pressurizing the industry, some are aiding the sector's ability to cope with climate change (e.g. loosening of regulations on GMO use, organic farming incentives), and others are increasing demand and opportunities for the fresh produce industry (e.g. shift towards alternate plant-based proteins and meat alternatives).



How our industry is reacting

By confirming key risks and challenges to our industry we were able to identify how our industry is making strides toward building a climate-resilient future.

3

Future focused change drivers

There are 3 main future-focused change drivers that are already playing out and impacting our sector. **Technology empowerment**, which agriculture is increasingly turning to in order to facilitate and increase the impact of our actions to revamp food systems at every stage, from seed to table. We have also identified **purposeful choices** as a change driver in agriculture and fresh produce – where we, together with consumers, are making tangible changes to facilitate environmental sustainability. Lastly, the food landscape itself is fundamentally changing which is driving the need for our sector to adapt. **Health** and what we eat matters more now than ever and producers need to be conscious of the opportunities and threats that these changes present in order to futureproof the industry.



Tech empowerment
Application of **advanced technology** with the potential to profoundly impact the sector, the planet and people.



Purposeful choices
Purposeful actions taken by the industry and consumers to **protect the environment** and save resources.



The pursuit of health
Healthier food choices that also **help mitigate the impact of climate change**.

Key Driving Forces: Tech Empowerment

Precision agriculture: As growers seek efficiency due to operational costs increases and climate change-driven regulations, the interest in precision agriculture (incl. robotisation and automation, data gathering and usage) grows in developed and developing countries alike.

Vertical Farms: Around the world, farmers are exploring the potential of indoor growing spaces. In addition to insulating crops from environmental pressures such as pests, disease and extreme weather, indoor farms allow growers to grow using considerably less land and far fewer resources.

Climate Optimized Logistics: Climate optimised logistics refer to removing inefficiencies in the process of delivering fresh food from the grower to the consumer through future-focused, sustainable measures including improved logistics, the introduction of electric vehicles, improvement of cold chain storage, waste generation reduction, as well as reducing the industry's carbon footprint.

Sustainability in floriculture: Production of flowers takes place predominantly in equatorial countries and the industry is thus significantly more at risk of being impacted by climate change e.g. reduced access to water, growing temperatures, and the occurrence of extreme weather. A necessity exists to change and adjust operational models, including reducing demand for water, recycling glass and own energy generation.



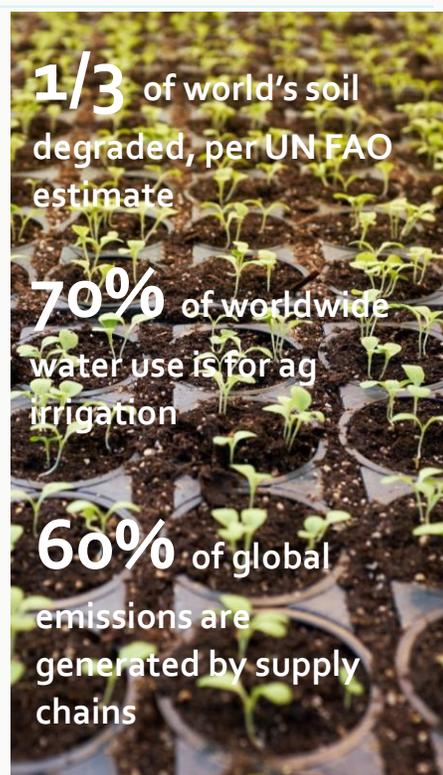
Key Driving Forces: Purposeful Choices

Soil Health: Soil protection provides a resilience tool for growers, fulfils consumer expectations and is in line with regulatory pressures.

Water Management: Water scarcity and the increasing frequency of megadroughts in various regions of the globe have increased awareness and regulatory pressures around sustainable water usage. Water saving, reusing and cleaning technologies are on the rise and gaining increasing importance among growers.

Energy Efficiency: Fresh food producers are under increasing pressure due to rising prices, regulatory pressure, as well as pressure from consumers, to be more energy efficient in all areas of their supply chain. The use of sustainable, alternative sources of energy like biomass plants, agrisolar, wind turbines or conventional photovoltaics and electric farming equipment, will aid the sector to reduce its carbon footprint.

Transparency of Value Chain: Supply chain transparency within the food sector has become a significant topic for governments and consumers alike. With supply chains being the biggest contributors to global emissions, it is no surprise that many consumers are looking at suppliers to actively tackle their carbon footprint, and governments follow suit with regulations.



Key Driving Forces: The Pursuit of Health

The Rise of Plant-Based: A trend driven by consumers, the willingness to replace meat and dairy with plant substitutes or simply change diet to be plant-based has greatly increased in recent years. As well as improving human health, shifting diets from meat and other animal products to plant-based has a high potential for reducing carbon footprints and mitigating climate change. Projections for the future show that vegan & vegetarian diets were associated with the greatest reductions in GHG emissions.

Health, Quality and Freshness Prioritized: Changing consumer expectations of the health, quality and nutritional value of food, as well as freshness (particularly that of fresh produce), connects with the need for transparency about origin across the value chain as consumer demands increasingly shift to harder-to-source fresh foods. For growers, this will become ever more important as stricter regulations come into play about product claims made, traceability, the quality of produce throughout the cold chain, along with changing consumer behavior toward healthier dietary alternatives. This trend could lead to increased demand for fresh produce, but also potentially higher levels of waste.

Personalized Nutrition: Personalised nutrition consists mostly of technology-enabled solutions (e.g. AI-based data processing), dietary supplements, pharma, medical testing and food elements (incl. ready meals / catering) to facilitate more effective nutrient delivery to consumers in a sustainable way.

As this trend grows, it is likely to create both opportunities and threats for the fresh produce sector across the entire value chain, through augmented, functional produce, modification of input seeds to deliver higher nutritional value, as well as shifting distribution and storage approaches. In addition, demand for specific fresh produce could increase, although this could be coupled with the increased risk of greater wastage.



70% possible reduction of GHG emissions from food production by 2050 with shift to plant-based diet

93% of consumers prioritize “freshness” in their food purchasing decisions



Progress towards climate resilience represents both opportunities and challenges for our industry.

Opportunities include reductions in input costs, improved efficiency and yields, reduced use of natural resources, and increases in demand and opportunities in our sector. We also face numerous challenges, such as limited capability to maximize technology developments, potential for reduced yields, increased administration and complexity, high investment costs, and threats to traditional farming practices and facilities.

Here, we have laid out where our industry currently is, as well as several proven and potential paths forward.

IFPA is your guide to consumer and industry insights.

For the full report and more information, go to freshproduce.com.
