

Exploring the **Food Transition**

Sustainability in Action | May 2024

Research

Theme **Food Transition**



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Our current consumption patterns and the way food is produced are important causes of climate change and biodiversity loss. Van Lanschot Kempen believes that a transformation of the food system into a more sustainable system - where food is produced in a healthy and sustainable way - is of utmost importance.

In this Sustainability in Action, we look at the goal of the food transition, what is needed to achieve it, and - last but not least - the role that investors can play in this.

An unhealthy system

Research shows that the boundaries within which we as humanity can safely operate are being greatly exceeded: we are polluting and depleting the earth.¹ Our food system is responsible for pressure on several planetary boundaries in which we can safely operate, as established by scientists and shown in the image on the right.

The current food system is a major cause of, among other things:

- Loss of biodiversity: current food production over utilises ecosystems and has a substantial impact on the environment. Agriculture threatens 24,000 of the 28,000 species that are endangered.²
- Excessive land use: over 33% of land is used for crop production for livestock and for the livestock itself. Only 18% is used for growing food for humans.³
- Climate change: approximately one-third of the greenhouse gasses emitted worldwide are related to the food system.
- Deforestation: almost 90% of global deforestation is caused by expanding agriculture.⁴

The paradox of the system is that an increasing number of people are overweight and suffering from associated diseases. Also, the frequent use of chemical pesticides can pose health risks.⁵

1 Planetary boundaries as defined by the Stockholm Resilience Centre, April 202

- 2 United Nations Environment Programme 2021 'Food systems impact on biodiversity loss'
- 3 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services 2019; UN Environment Programme 'Frontiers Special Issue' 2023
- 4 FAO 2023 The state of food security and nutrition in the world.
- 5 European Environment Agency 2023 'How pesticides impact human health and ecosystems in Europe'.

All of this incurs high costs, primarily in healthcare, but also in efforts to mitigate the negative impacts on the environment. Furthermore, it is becoming increasingly clear that the population in emerging countries is vulnerable to food insecurity, since climate change (partly caused by the food system itself) can endanger food supply.



Healthy, smart, and sustainable

The food transition should lead to a sustainable food system, in which food is produced, distributed, and consumed in a healthy, affordable, safe, and sustainable manner. It is important not to forget that food security must also be ensured: people should be confident that there will be no scarcity. However, should we continue on the current path, soil depletion could potentially cause food shortages.

Upon closer examination, the food transition involves:

a) Promoting a healthy diet: the average diet in the developed world leads to health problems such as obesity and the risk of associated conditions like cardiovascular diseases. The high consumption of animal products also damages the environment due to high emissions and large quantities of manure used.⁶



One possible solution could be to encourage consumers to consume fewer animal-based proteins and more plant-based proteins. This shift could reduce land use and greenhouse gas emissions. It could also alleviate the strain on healthcare. Parties such as multinational corporations, supermarkets, and the hospitality industry could offer more healthy and plant-based products.

- b) Smart production: due to a growing world population, more food is needed, while agricultural land is decreasing due to climate change and soil depletion. At the same time, greenhouse gas emissions need to be reduced, while the use of chemicals should also decrease. We see several possible solutions:
 - Sustainable and/or regenerative agriculture can restore nature and soil fertility and promote biodiversity. It also improves water quality. Increasing the availability of organic fertilizers, smarter irrigation systems, and seed improvements (increasing disease resistance) could help.
 - Replacing animal products with plant-based alternatives can reduce the negative environmental impact. This can be achieved through new techniques for producing cultured meat, and meat and cheese substitutes.
 - Reducing greenhouse gas emissions by, for example, electrifying agricultural machinery.⁷

- 6 Dutch Health Council (Gezondheidsraad) 2023 Gezonde eiwittransitie; UNEP 2023, Frontiers Special issue.
- 7 UBS 2023 'Will we grow enough food?'; McKinsey 2023 'The agricultural transition: Building a sustainable future'.

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To ensure a livable future, several major transitions are essential. Van Lanschot Kempen focuses on those areas where we believe we can make the biggest difference. For us, these are the **energy transition** and the **food transition**. This also involves considering the **materials transition**.

- c) Preventing food waste and loss: around 1.3 billion tonnes of food are lost or wasted every year. This accounts for one-third of total food production.⁸ Reducing waste leads to lower emissions, land use, deforestation, and improves food security. This can be achieved through:
 - Optimising harvests with improved equipment.
 - Improving food storage through smarter technologies and better alignment of quality requirements between supermarkets and producers.⁹
 - Raising awareness among consumers to reduce food waste.

8 FAO factsheet 'How much food is lost or wasted'.

9 IPCC 2022 - 'Climate Change 2022'; Food System Economics Commission 2024 - 'The Economics of the Food System Transformation'.

What investors can do

Investors can actively participate in the food transition. In order to measure and report on their contribution, it is useful to set concrete goals and determine the focus areas for investment. For example, as an investor, do you want to contribute to healthier agricultural land, reduce deforestation, minimise chemical pesticide use, or develop smarter packaging materials? Goals can be defined as Key Performance Indicators (KPIs) to measure potential impact.

The United Nations' Sustainable Development Goals (SDGs) can provide guidance as well. SDGs 2, 3, 7, and 13, among others, aim to reduce food waste, improve food safety and healthier diets, address climate change, and enhance biodiversity. The SDGs potentially can make it easier for investors to select and evaluate fund managers.



Implementing through listed instruments...

Contributing to the food transition can be done by investing in an equity fund that selects (listed) companies based on their positive contributions. These could be companies which provide tangible solutions in areas such as food safety, clean water, and health and well-being.

An example could be the Danish Novonensis (included in the Sustainable Equity Strategy and Best Select funds), which helps reduce food waste through the enzymes they create. This includes improved animal feed tailored to the needs of animals and enhancing products' shelf life. Another example is Darling Ingredients (US), which specialises in collecting and recycling food waste into biogas.

Fund managers can select companies which positively contribute to the transition and exclude those that do not or those which have a negative impact. Additionally, investors engage in dialogue (engagement) with companies to address areas for improvement, such as reducing greenhouse gas emissions.

... or through private investments

A relatively easier way to contribute to the food transition is through nonlisted private instruments, since here investors have more control over how their money is used. This allows for concrete positive impact. For example, investors can choose to directly invest in farmland that applies sustainable or regenerative farming methods. Investments in Private Debt, financing sustainable farming operations, are also an option. Private Equity investments in smaller (non-listed) companies which develop new crops or support a healthier lifestyle are also possibilities.

The image on the next page provides an overview of non-listed investment opportunities, potential KPIs, and their contribution to the food transition.

If you would like to learn more about our view on the food transition and the possibilities to contribute through your investments, your contact person at Van Lanschot Kempen will be happy to provide more information or connect you with our sustainability specialists.



Non-listed investment opportunities

Theme

Potential KPIs

Sustainable food

production

Better soil quality

Reducing water use,

 CO_2 and manure

Agriculture

SDG's

2 ZERO NUNGER

- 555

15 LIFE ON LAND

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Private Debt



Private Equity / Venture Capital



...throughout the food chain

Agriculture	Digitalisation and R&D	Processors	Transport & Retail	Consumption
 Seeds Regenerative agriculture Electrification farm machinery Agricultural management Animal feed additives 	 Alternative proteins Culture cells Smart irrigation systems Crop and soil health Alternative ingredients 	 Circular packaging Alternatives for plastic High-quality processors 	 Supply chain transparency Warehouse optimalisation Supply chain optimalisation 	 Personalised nutrition Healthy diet Food waste management Reduction of use of plastic
			Promoting a healthy die	t
		Preventing food waste and loss		
	Smart production			

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