





# Critical Transition 1.

## Promoting Healthy Diets

 Healthy Diets	 Better Futures Additional Investment Requirements 2030 (USD billions)	 Better Futures Business Opportunity (USD billions)	 Economic Prize from Hidden Cost Reductions (USD billions)	
	2030	2030	2030	2050
	\$30	\$2,035	\$1,285	\$1,920

Chapter 2 showed how unhealthy diets are responsible for serious effects on human health. Current dietary choices are also the main force behind the ongoing conversion of natural ecosystems to agriculture, which in turn drives climate change and the loss of biodiversity. Disconcertingly, on current trends, as incomes rise, people on average choose to eat more foods that are bad for their health. This is thus not a challenge that will disappear as economies grow.

The dismal consequences of unhealthy diets can be addressed by global convergence towards a human and planetary health diet (Box 7). In almost all countries, this will mean a major transition. Every country, region and city will need to make the transition in its own way, in accordance with its own cultural and socio-economic environment. And each will arrive at different changes in what people eat, depending on their unique starting point. For example, in parts of sub-Saharan Africa, many people – in particular children and young women – need to eat more animal-sourced foods, including red meat, to fill protein and micronutrient gaps in their diets. In most other places, particularly the United States and Canada, red meat consumption needs to fall significantly.<sup>1</sup>

Global convergence on a human and planetary health diet does not mean less tasty or appealing diets. On the contrary, this shift is about expanding everyday choice for most people, making it possible and affordable to enjoy a far broader range of high-quality foods. The convergence, moreover, is about nutrient content, not a specific set of foods. There is room for variety, and a number of great culinary traditions such as traditional Chinese and Mediterranean diets can be compatible with a human and planetary health diet.

It means people everywhere will eat more “protective” foods than they do now, such as vegetables, nuts, leafy greens, seeds, beans, pulses, fruits and whole grains.<sup>2</sup> Protein consumption everywhere will need to reach the levels currently enjoyed in some high-income countries, although with a broader variety of proteins in the everyday diet. Animal proteins will need to be significantly lower than in those countries. A bigger share will come from fish and plants such as beans and legumes. Everywhere, sugar and salt will be consumed in smaller quantities. Most diets will also comprise lower quantities of current staple foods (wheat, rice, potatoes, corn) to make room for healthier, micronutrient-dense foods. Consumption of processed foods high in unhealthy ingredients will generally go down, although targets for how far consumption of these foods needs to fall are not yet established.<sup>3</sup> Consumption of salt, sugar and unhealthy fats should be kept to a minimum.

A transition to healthier diets must also include getting more nutritious foods to the two billion people living in moderate or severe food insecurity.<sup>4</sup> Some 820 million people continue to face hunger, and their numbers are rising in regions across sub-Saharan Africa and parts of Latin America and western Asia.<sup>5</sup> Food insecurity is more prevalent among women than men on every continent, and particularly in Latin America.<sup>6</sup> Acute economic and climate shocks, as well as conflict and chronic income and wealth inequalities, undermine food security and drive undernutrition, in high- and low-income areas alike. The relative cheapness of unhealthy calories in higher-income countries and the expense of foods high in proteins and micronutrients (eggs, milk, fruits and vegetables), compared to starchy staples in lower-income countries, are important factors behind these trends.<sup>i</sup>

## BOX 7

### Key parameters of a human and planetary health diet

Achieving human and planetary health requires people's diets to:

- Converge to predominantly plant-based diets, though with still significant room for consumption of animal, oceanic and alternative proteins.
- Include more protective foods like fruits, vegetables, whole grains, legumes, and nuts.
- Limit unhealthy food consumption, such as salt, sugar and saturated fats.
- Moderate red meat consumption – meaning a reduction in settings currently consuming beyond their fair share, an increase where consumption is below dietary recommendations.
- Transition to increased consumption of whole, rather than refined, grains.
- Include little, preferably no, ultra-processed foods high in saturated fats, salt, and sugar.

Food group intake ranges as recommended by national dietary guidelines or the EAT Lancet Commission's Planetary Health Diet allow flexibility to accommodate food types, agricultural systems, cultural traditions, and individual dietary preferences – including variations on flexitarian, omnivore, vegetarian, and vegan diets.

A universal healthy diet is attainable, and, at the same time, options and pathways to affordable and desirable healthy diets are not uniform and can be applied locally.

## Goals and benefits

Shifting to a human and planetary health diet is fundamental to achieving the Sustainable Development Goals (SDGs) and the Paris Agreement targets on climate change. Analysis conducted for this report shows the benefits of a transition to healthy diets.

- **Environment.** Zero gross expansion in the area of land under cultivation for food production by 2025, reduction in total territories used for livestock of about one-third by 2030, and a consequent freeing up of nearly 500 million hectares of land for natural ecosystem restoration by the same date. This would lead to reductions in greenhouse gas emissions (see Exhibit 16 below for the Intergovernmental Panel on Climate Change's (IPCC) illustration of the potential) and ecosystem and biodiversity loss.

<sup>i</sup> The nature of food itself helps drive these outcomes, such as for example through the perishability of healthy food (see critical transition 1 on healthy diets) and the high density of calories in sugary food, as opposed to, for example, leafy greens.

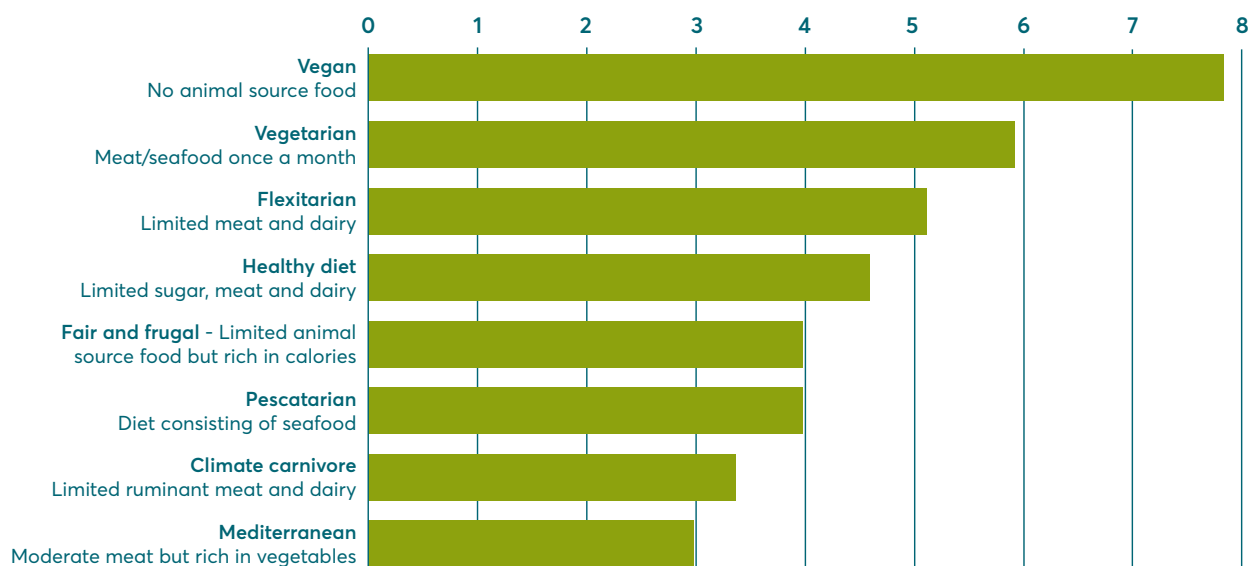
- **Health.** Reductions in micronutrient deficiencies, including deficiencies in iron, zinc, vitamin A, folate and iodine (which lead to stunting and wasting when combined with deficiencies in protein, fat or carbohydrates). This would improve cognitive development in children. It would also reduce the incidence of obesity and diet-related non-communicable diseases, particularly in higher-income countries.<sup>ii</sup> Globally, 11 million diet-related mortalities would be prevented per year by 2050, approximately 20 percent of total deaths among adults.<sup>7</sup>
- **Inclusion.** Greater food security and availability of healthy, nutritious food for lower-income communities, rural and urban.

EXHIBIT 16

## The effects of various types of diets on greenhouse gas emissions according to the IPCC

### Dietary changes could help reduce greenhouse gas emissions

GHG mitigation potential (billion tonnes of CO<sub>2</sub> equivalent per year)



Source: Leslie Hook and Steven Bernard, "UN Climate Report Warns of Rising Air Temperatures over Land," Financial Times, August 8, 2019, <https://www.ft.com/content/dda8b286-b928-11e9-96bd-8e884d3ea203>.

The annual economic gain from this transition is an estimated \$1.285 trillion by 2030, and \$1.920 trillion by 2050. A reduction in public health costs of \$1.090 trillion a year by 2030 would be the biggest driver of the gain.

The public investment required to deliver the transition is estimated at \$30 billion. The economic gain would therefore greatly outweigh the costs.

<sup>ii</sup> Note: modelling in this report did not cover the health impacts of ten critical transitions, but used as a supplementary resource research conducted by the Institute for Health Metrics and Evaluation at the University of Washington on the impacts of introducing a human and planetary health diet, one of the key modelling assumptions for this report (see technical annex – Annex B).

## Tackling nutrition and financing gaps with a Nutritious Foods Financing Facility

Across developing countries, between 70 and 90 percent of food is produced, processed, transported and sold by small- and medium-sized enterprises (SMEs). Supporting SMEs is a crucial part of the work done by the Global Alliance for Improved Nutrition (GAIN) towards improving the availability, desirability and quality of sustainable, safe, nutritious foods sold to low-income consumers.

Access to finance is the foremost barrier to growth and delivery of nutritious foods, as highlighted in a recent study of over 300 African SMEs.<sup>8</sup>

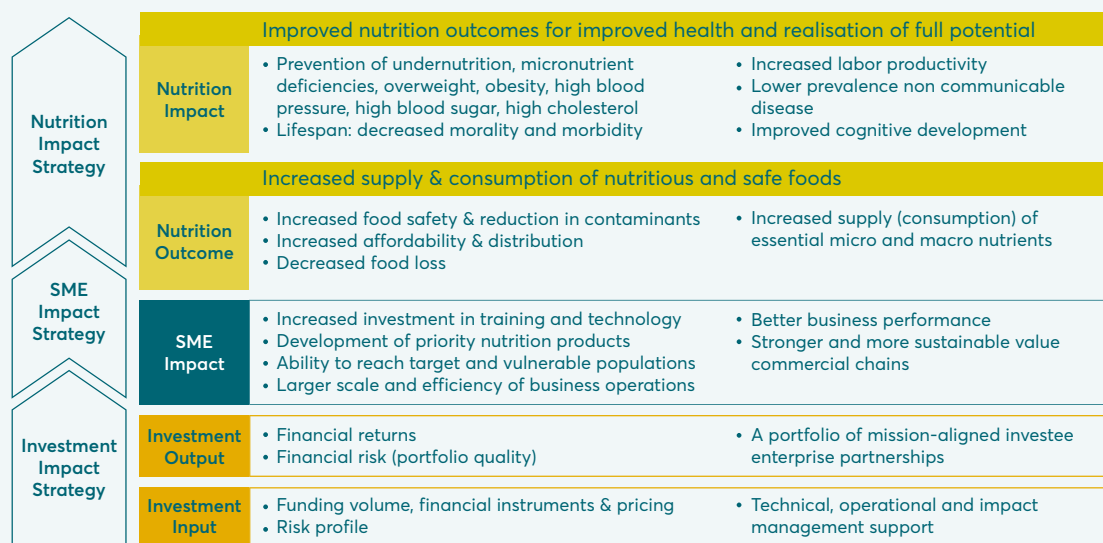
While investors accept the strong need for dedicated funds and facilities to improve the quality of food supplied, viable deal flows to boost nutritious and safe foods from SMEs in developing markets are considered challenging to find and risky. On top of this, funds have no experience in defining what nutritious food is or in knowing how to measure nutrition outputs and outcomes.

Innovative financing mechanisms are sorely needed to address public funding gaps and accelerate progress towards global nutrition targets. Blended finance (that is, public-private finance) can expand the reach of nutrition-sensitive interventions, leveraging additional capital and reducing other constraints, including the risk aversion of banks, the high transaction costs of reaching SMEs and high interest rates.

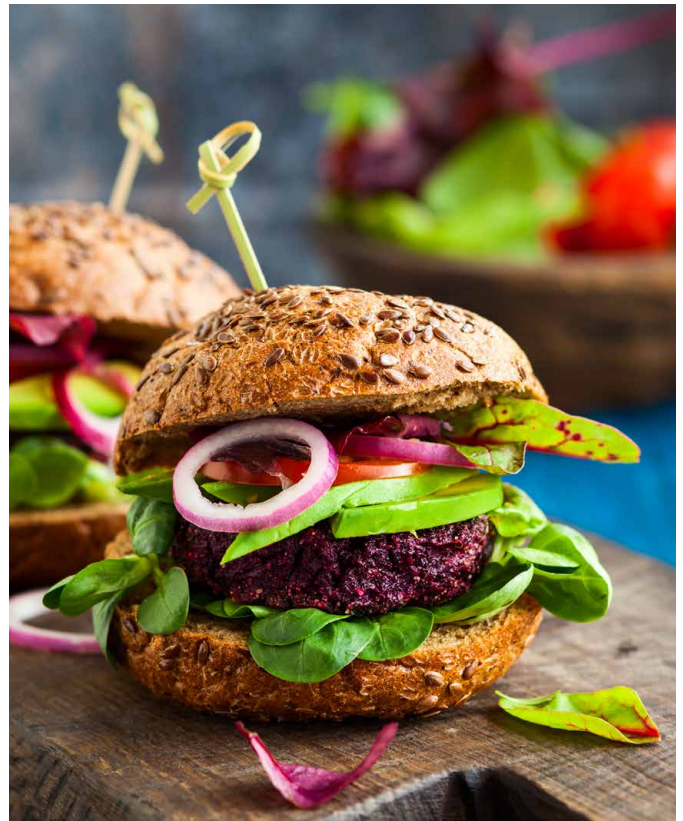
GAIN's Nutritious Food Financing Facility (N3F) aims to catalyse private sector financing and channel investment capital to companies to accelerate the expansion of locally produced nutritious foods in Africa and Asia. It works by filling gaps in capital and debt markets available to SMEs, with a focus on mature SMEs producing nutritious foods for local markets, while facilitating the provision of technical assistance to deliver improved, sustainable business models. The N3F also aims to develop nutrition-enhancing investment tools for replication in the agri-food sector. Exhibit 17 sets out the theory of change leading to improved health impacts.

### EXHIBIT 17

## From investment to impact: How the Nutritious Food Financing Facility seeks to improve nutrition



Source: 'Nutritious Foods Financing Facility (N3F),' Global Alliance for Improved Nutrition & ISF, 2019



Such a big change in human eating habits worldwide has never happened before. However, there are many positive signs around the world that a movement to healthier food could be emerging. Europe and North America are experiencing rising consumer demand for nutritious diets that are also less damaging for the environment. Increasing numbers of young people are switching to plant-based diets. Beef consumption in the United States fell by over 15 percent between 2005 and 2014 and meat consumption is also falling in France.<sup>9</sup>

Businesses are seizing the opportunity to provide healthier, nutritious foods. The alternative protein movement (critical transition number 5) is taking off, with Impossible Foods, Beyond Meat, Vbites and many others providing plant-based alternatives to animal proteins. Vegan and vegetarian options are also mushrooming. Fast food chain restaurants and food retailers are expanding their vegan and vegetarian offerings. Companies such as Alpha Food Labs are working with large food companies to develop nutritious and sustainable product lines, such as plant-based yogurts.<sup>iii</sup> While the environmental impact of these alternative foods appears positive, more work is needed to understand and assess their health effects.

<sup>iii</sup> To date, Alpha Food Labs have worked with Barilla, Beyond Meat, Campbell's and Danone among others.

## Future 50 Foods

The Future 50 Foods Report, written by Knorr together with WWF-UK and Dr Adam Drewnowski, identifies 50 foods we should eat more of in order to reduce the environmental impact of our food while increasing the nutritional value of our meals.<sup>10</sup> The 50 foods have a lower impact on the environment, many can grow in challenging environments, some naturally replenish the soil and others work as cover crops. The report has reached 476 million people across 19 countries.

The Future 50 Foods are built into Knorr (a German food and beverage brand, owned by Unilever) product innovations in ten countries with 14 products launching in coming years. Many of the 400 chefs employed by Unilever have created recipes which feature on websites, on packaging and in stores, inspiring and educating consumers to eat more of these foods. Knorr professional chefs have partnered with World Wildlife Fund (WWF) to bring Future 50 Foods into recipes used in thousands of kitchens operated worldwide by the French food services company Sodexo. Knorr continues to work with partners and experts to amplify the impact of the Future 50 Foods initiative through farming, retail and consumer-facing programmes.

In sub-Saharan Africa, Africa Improved Foods is developing nutritious food products for children and pregnant or breastfeeding women in Rwanda (Box 11). Through its Marketplace for Nutritious Foods, GAIN is also working with SMEs in Kenya, Mozambique and Tanzania to support the development of nutritious foods for low-income consumers. Through the Marketplace's Innovation Accelerator (Box 8) GAIN coordinates a network of local entrepreneurs, investors and institutions and provides financing and technical assistance for entrepreneurs developing viable and profitable nutritious food innovations to scale.

National and city leaders already recognise how the right policies with better ministry coordination can help to deliver more nutritious food and healthier diets. Acknowledging the crucial role of city authorities in this context, the Milan Urban Food Policy Pact, signed by almost 200 cities worldwide with a total of more than 450 million inhabitants, challenges signatories to provide permanent and reliable access for all to adequate, safe, local, diversified, fair, healthy and nutrient-rich food.<sup>11</sup> The World Health Organization (WHO) has recorded over 1,000 national policies in 191 countries in its Global Database on the Implementation of Nutrition Action, a repository of national policies on healthy diets.

To give some examples, Singapore introduced a Healthier Choice programme in 2001. More than 2,600 food products are now entitled to carry the programme's symbol, owing to a concerted national approach to establishing healthier eating patterns as part of the culture. In the United Kingdom, a new cross-government initiative to develop a National Food Strategy recognises the interdependence of healthy diets, sustainable land use and economic prosperity for all. Chile is confronting unhealthy consumption by taxing food and drink with high sugar content and setting limits on advertising to children (Box 10). And for more than a decade, New York City's authorities have been tackling "food deserts" and the scarcity of outlets for nutritious foods in low-income neighbourhoods. They have developed food policies supporting healthier diets, including the Green Cart Initiative, launched in 2008, which aims to bring more fresh produce into food deserts.<sup>12</sup>

## Sugar taxes in Chile

Chile has been a pioneer in using tax as a tool to limit consumption of unhealthy foods. The main target is sugar-sweetened beverages, on which Chile levies taxes of up to 18 percent. The result has been a 21.6 percent reduction in consumption since the policy was introduced. The taxes are now paired with restrictions on advertising to children. These include limits on food packaging that targets children through, for example, cartoons, measures to stop schools selling unhealthy foods, restrictions on television adverts, bans on promotional toys and the introduction of large black health warning labels on foods high in salt, saturated fat, sugar and calories.<sup>13</sup>

Despite these encouraging signs, major barriers inhibiting the shift to a human and planetary health diet remain. Changing consumer behaviour on a large scale is not easy. Any attempt needs to take account of the specific features of local diets. However, international food and beverage companies have been very successful in producing and marketing ultra-processed products, with high sugar and sodium content, that have wide cross-cultural appeal. Doing something similar for supply chains that produce, manufacture, market and distribute healthy processed foods and drinks will take innovation and investment, but there is no reason why it could not be done.

Solutions will need to tackle the following barriers:

First, incoherence across policies, guidelines and public investment decisions encourages consumption of unhealthy foods. For example, the food environments and marketing that consumers are exposed to every day powerfully influence their choices. In most countries, however, food policy does not sit squarely with one government department at the national or sub-national level. As a result, national governments can set healthy dietary guidelines while, in parallel, city officials allow fast food chains to open up near schools. Historically, food marketing has been concentrated on highly processed food categories high in salt, sugar and fats. Public regulators of communications and marketing often struggle to limit advertising of highly processed food, confectionary and sugary drinks, which tend to be aimed at children. Food companies in the United Kingdom spend around £150 million a year marketing crisps, confectionary and sugary drinks, compared to public health spending on better diets of £5 million.<sup>14</sup> These are some of the reasons why the Standing Committee on Nutrition, a United Nations group including the Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), United Nations Children's Fund (UNICEF), World Food Programme (WFP) and WHO, is focusing its work on food environments in 2020.

Second, today's supply chains are geared towards the production of high-quantity, affordable foods that are of low nutritional value and based on a limited number of crops. Analysis by the International Food Policy and Research Institute (IFPRI) found that unhealthy food has a much lower caloric "price" than healthy food. Put simply, unhealthy calories are generally the most affordable option. This is particularly true in low-income countries. For example, in Niger the calories in an egg cost 23 times as much as the same number of calories in the staple crops of rice or corn.<sup>15</sup> This is partly due to the perishability of eggs and other nutrient-rich foods, such as leafy green vegetables, which makes them difficult to transport across long supply chains. And in many low-income countries, transport and cold chain storage costs are too high (see critical transition number 6 on food loss and waste). By contrast, international trade policies often encourage imports and exports of highly processed food of low nutritional content because these, as opposed to "pure" agricultural products, are rarely protected by tariffs and quotas.

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Consumer behaviour has been and continues to be a major barrier to changing diets. Factors such as convenience, cultural preference and affordability are important to consumers and differ from one country and region to the next. That said, there has been a general trend – largely influenced by private sector marketing – towards greater consumption of processed and highly processed foods. In Europe, purchasing of highly processed foods as a proportion of total household purchasing is highest in the United Kingdom, where it accounts for over 50 percent of all household purchases. In Germany, Belgium, Ireland and Poland, rates are between 35 and 45 percent.<sup>16</sup> Rates in Asia and Africa are growing significantly, albeit from a lower baseline. Between 2005 and 2017, sales of highly processed foods grew by 30 percent in Africa and by over 60 percent in Asia.<sup>17</sup>

Despite these challenges, there is significant potential for more coordinated policies combined with “nudges”, new business models and better investment decisions to improve diets. And there will be a multiplier effect: the pace of improvement is likely to pick up as public understanding of the health and environmental benefits of better diets improves and attitudes change.

## Priority actions

To achieve a global transition to healthy diets at the speed and scale needed, governments, business, finance and civil society need to work on four priorities:

### Align government policies

Closer alignment between agricultural, public health and environmental policies would give a big push to a healthy diet transition in every country. Governments have numerous tools at their disposal, including public health guidelines, public procurement, regulation (of product labelling or advertising, for example), and fiscal incentives, as well as simple acts of political leadership. Alignment will never be perfect. But every country has opportunities to make policies more coherent at relatively low cost. To illustrate, consumers and companies need encouragement to change their conduct and create new norms. Imagine the impact if governments consistently used their top five communication channels to promote dietary guidelines based on planetary and healthy criteria. Imagine the difference it would make if teachers as well as doctors and other public health professionals were all trained in these guidelines. Similarly, governments could boost demand for healthy foods through their control of public procurement. Imagine the impact on the market for healthy foods if schools, hospitals, prisons and the military consistently bought food in line with national human and planetary health dietary guidelines.

To fortify these efforts, governments need to regulate labelling and marketing – particularly of products aimed at children – to make sure they give good information to consumers on nutritional value, both positive and negative. As with marketing for cigarettes and alcohol, food marketing should inform consumers – based on the best available science – about the negative effects of their choices (for example, the effects of dangerous levels of saturated fats, salt or sugar). Businesses could also collaborate pre-competitively with their peers, governments and civil society to commit themselves to promoting the national transition to healthy diets in a transparent and traceable fashion. This includes businesses giving their public support to the necessary policy measures. Civil society organisations can campaign loudly for the transition to healthy diets as a solution to public health and environmental problems. Armed with good scientific evidence, they can target public information campaigns against particularly harmful foods, inspired by similar campaigns against smoking. And they can hold governments, business and finance to account, promoting progress towards best practice from all of them.

### Redirect public finance towards healthy foods

Governments can redirect public finance away from unhealthy foods and repurpose it to support healthy foods. The aim is to promote healthy food production and consumption and discourage the production and consumption of unhealthy food.





Agricultural subsidies are critical tools here (see critical transition number 2), but taxes and fiscal transfers will be important too. Chile has led the way on taxing sugar (Box 10), but there is a lot more that could be done with this tool. For instance, taxes could be levied on highly processed food with high levels of harmful ingredients. There are as yet few cases of governments using fiscal incentives to expand the supply of healthy foods, but this too is an area ripe for experimentation. Governments could pay farmers incentives to increase the supply of healthy, affordable foods, strengthening the local provision of fruit, vegetables and nuts.

Although experience is rather thin, one study suggests that cash incentives could be the most effective policy in reducing unhealthy food consumption.<sup>18</sup> Another review, while calling for more studies, suggests that a combination of subsidies and taxes – at a fairly high level and preferably applied in tandem – would yield the best effect.<sup>19</sup>

### **Target investment and innovation**

This priority is critical to harnessing the power of business. If companies are to develop successful nutritious and sustainable food product lines, they need to start by scrutinising their business through the lens of the human and planetary health diet. Action on the other three priorities will give businesses strong incentives. The result is likely to be changes in their research and development (R&D) investments, product development, lobbying and advertising strategies, and acquisitions and marketing spend (see Box 12 on Nestlé’s efforts to reduce sugar content in its products).

Developing business models that can provide nutritious, affordable foods to low-income populations in different contexts will be crucial to completing this transition. They will offer start-ups opportunities for effective and disruptive innovations. New public-private partnership models could also help to scale safe, nutritious food value chains, in particular to serve customers in low- and middle-income countries. Existing blended-finance and other innovative finance mechanisms could be adapted to finance them. Municipal governments can help by directing public procurement towards healthy foods and by using zoning and other regulatory approaches, as well as taking part in public-private partnerships. And the financial sector can contribute further by adding nutrition to environmental, social and governance screening of investments and stepping up their analysis of nutrition-related risk accordingly.

## Africa Improved Foods

Africa Improved Foods (AIF) produces locally nutritious food products (mineral and vitamin-rich porridge, for example) for local populations, especially pregnant and lactating mothers and stunted children, from locally sourced crops. By improving access to nutritious food, AIF is trying to address stunting and malnutrition, particularly in Rwanda, where almost 40 percent of children under five suffer from stunted growth (which costs Rwanda 11.5 percent of gross domestic product (GDP)).<sup>20</sup>

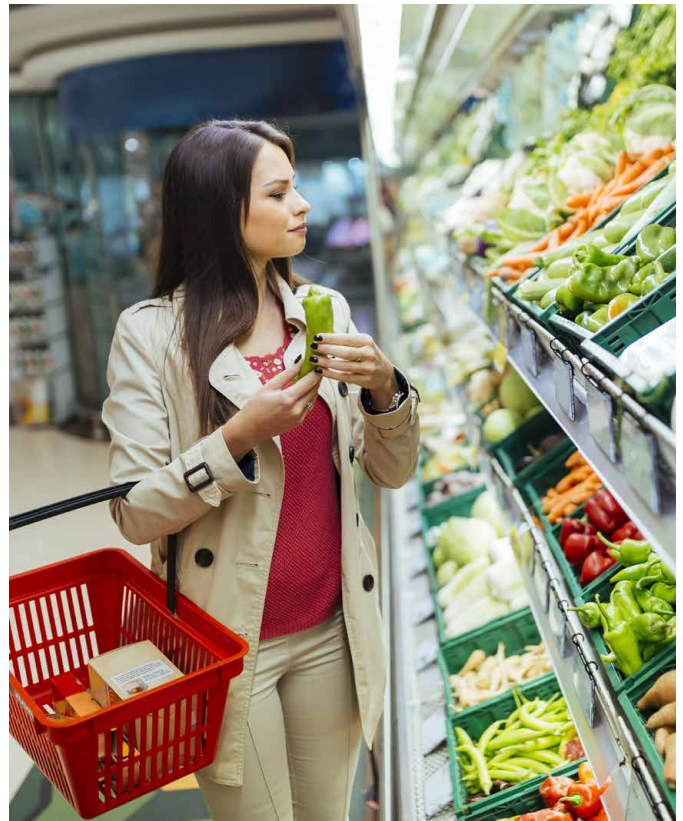
By producing food locally, AIF supports farmers. The 25,000 farmers who sold their corn to AIF in 2018 received training through the company and its partners in how to improve quality. The farmers (mostly women) get a reliable income so they are able to start investing in the local economy. Further along the value chain, the company's factory generates jobs, increases demand for regionally sourced packaging, equipment and services, and increases the value of Rwanda's exports. According to Chicago University, AIF will contribute approximately \$750 million to the economic development of Rwanda.<sup>21</sup> AIF has a number of core partners, including the life sciences company DSM, the International Finance Corporation, the United Nations (UN) World Food Programme and the Rwandan government, whose commitment to business-friendly policies, including the simplification of tax procedures and land tenure reform, will be key to AIF's ability to scale successfully.

## Nestlé's commitment to reduce added sugars in foods and beverages

Nestlé started its sugar reduction journey in 2000 followed by a series of public commitments to reduce sugars in a range of products. By the end of 2016 Nestlé had reduced the added sugar content by 8 percent, the equivalent of 39,000 tonnes. Efforts in this area are continuing through a new commitment to reduce the sugars added to foods and beverages by a further 5 percent by 2020 to support individuals and families in meeting WHO recommendations.

For adults and children alike, WHO's strictest recommendation (conditional) is to reduce the daily intake of free sugars to less than 5 percent of total energy intake. Currently, around 45 percent of Nestlé foods and beverages provide less than 5 percent added sugars, enabling consumers to use those products while meeting the WHO's strictest recommendation. Of the 55 percent remaining, 45 percent are in the scope of Nestlé's sugar commitments and 10 percent are not relevant to the exercise as their sugar content is regulated. To meet its commitments, Nestlé is undertaking reformulations to ensure that these changes do not affect the taste or texture of products.

Nestlé has been reducing sugar content in popular products such as its cocoa malt beverage products, while also offering natural alternatives with significantly less sugar and sweetness. Nestlé Indonesia launched an improved Milo chocolate malt drink with 25 percent less sugar and in Singapore the first Milo powder with no added table sugar or artificial or natural sweeteners was launched.



### Promote behavioural change

Behavioural science has shown that “nudges” can influence how consumers make their purchasing and eating decisions.<sup>22</sup> Shifts in context (for example, which foods are presented first in a supermarket, school or corporate cafeteria) or in how information is presented (on menus, say) can significantly alter consumer behaviour. Smaller plate sizes (in the hospitality sector and commercial catering) reduce over-consumption and food loss and waste. The UK Government Behavioural Insights Team has developed the EAST framework (easy, attractive, social and timely) as a guide to combining nudges and policy. This approach has significant potential to speed the transition to healthy diets.

Recent advances in big data analytics and artificial intelligence present an opportunity to understand consumer trends and patterns more rapidly and at greater scale than before and to engage with consumers more effectively. Research institutions and international organisations can also help to close information gaps on nutrition, test innovations that could influence consumer demand and share lessons on scalable solutions. The Global Nutrition Summit in Tokyo in 2020 will offer a chance to put momentum behind this priority. Much more public and private R&D could focus on how to enable and accelerate shifts in consumer behaviour towards choosing healthy diets.

Platforms for community engagement can create a space to share ideas across social groups and sectors. For example, Sustainable Diets for All is an advocacy programme led by Hivos, a development aid organisation based in the Netherlands, and the International Institute for Environment and Development (IIED), that supports civil society organisations and low-income communities to advocate for better food production, trade and consumption.

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