

Good Practice Government Policies on Food Systems to Simultaneously Address Undernutrition, Obesity and Climate Change

– Derived from an evidence review and international expert consultation –

Celia Burgaz, Sciensano, and Université libre de Bruxelles, ULB, Belgium, and World Food Forum, Italy; Ana Paula Bartoletto Martins, São Paulo University, Brazil; Carolina Batis, National Institute of Public Health of Mexico, Mexico; Luciana Castronuovo, InterAmerican Heart Foundation Argentina, FIC Argentina, Argentina; Adama Diouf, Université Cheikh Anta Diop de Dakar, Senegal; Gary Sacks, Deakin University, Australia; Boyd Swinburn, University of Auckland, New Zealand; and Stefanie Vandevijvere, Sciensano, Belgium

Key Findings – facts and issues

- Based on an evidence review and a global expert consultation, a list of 44 good practice policies for governments was created to achieve healthy diets from sustainable food systems.
- Forty of the proposed policies are perceived to simultaneously address undernutrition, obesity and/or climate change (double- and triple-duty actions). A total of 24 policies were perceived to have double-duty potential and 16 were perceived to have triple-duty potential.
- When considering the potential impact of the proposed policies on undernutrition, obesity and/or climate change, several potential synergies and trade-offs were identified:
 - a. For fourteen policies, potential trade-offs were identified concerning ‘undernutrition’, mostly related to lower agricultural yields or the potential increase in prices of final products as a consequence of the policies.
 - b. In eleven cases, potential trade-offs were identified for ‘environmental sustainability’, mainly regarding the increase in greenhouse gas emissions from transport, packaging, or food waste.
 - c. For nine policies, potential trade-offs were identified for ‘obesity’, mainly regarding the fact that some of the policies (e.g. related to food waste, food composition or food labelling) were focused on packaged foods which are often (although not exclusively) unhealthier rather than on the promotion of fresh, unprocessed products which are often healthier.
- The proposed policies serve as a starting point for catalysing the transformation of global food systems to achieve SDG2 and can provide a foundation for benchmarking change over time.
- To address all the complex aspects of food systems, the proposed policies should be contextualised and adapted to each situation and environment, with priority for implementation given to those policies that have strong evidence of effectiveness.

What are food systems?

Food systems are all the people, places, and practices that contribute to the production, capture or harvest, processing, distribution, retail, consumption, and disposal of food (1). Because of their nature and the stakeholders involved, the structure and functioning of food systems are particularly complex.

What are the major issues resulting from current food systems?

Even if food systems bring many beneficial effects for society, they negatively impact human and planetary health. In fact, they are central to tackling some of the most pressing global public health pandemics of our time: (a) undernutrition and food insecurity, (b)

obesity and diet-related non-communicable diseases (NCDs), and (c) climate change.

Over the past 50 years, the contribution of ultra-processed foods, including sugary drinks, to population’s diets has significantly increased (3), and has caused an increase in overweight and obesity rates, which have joined the long-standing challenge of undernutrition and food insecurity, leading to malnutrition in all its forms across countries and regions worldwide (3–5). Now, nearly one-third of the global population experiences some form of malnutrition (e.g. underweight, food insecurity, micronutrient deficiencies, overweight or obesity) (2,6). In addition, the political economy of current food systems is acknowledged to significantly contribute to

social inequities, as healthy diets remain unaffordable for many individuals globally (7,8).

In parallel, food systems contribute to climate change, causing one-third of man-made greenhouse gas emissions worldwide (9). Around half of the emissions associated with the food system derive from agriculture and associated land use. Other energy-dependent activities, such as transport, food processing and packing represent the other half of the emissions associated with food systems. Food systems are behind major negative environmental impacts, such as land degradation, eutrophication, deforestation, loss of biodiversity, water stress, and soil and water contamination (9).

These interconnected pandemics of undernutrition, obesity and climate change have been referred to as the “Global Syndemic”, as they affect most people in every country and region worldwide and they have common drivers and potential solutions (2).

What can governments do to transform food systems?

The need for a transformation of our current food system is widely agreed (2,6). The United Nations Food Systems Summit (UNFSS) in 2021, demonstrated the interconnectedness of food systems with the Sustainable Development Goals (SDGs) and provided a space for countries to develop national pathways towards food system transformation (1).

To achieve it, recent scientific advice concludes that governments should consider both health and environmental sustainability angles when designing and implementing policies. It is therefore essential to improve our understanding of the effects and effectiveness of public policies on our health and the environment, as well as to recognise their ability to simultaneously reduce the burden of the Global Syndemic. This ability to improve multiple challenges is what we call “the double- or triple-duty potential” of a policy. Additionally, when implementing policies, there can be potential spill-over effects that need to be acknowledged. These effects can be positive “synergies” (mutually advantageous effects from the application of one policy on the implementation and/or effectiveness of another policy), but they can also be “trade-offs” (negative effects across policy objectives, effectiveness and/or outcomes).

To create healthy diets from sustainable food systems, it is therefore crucial to identify evidence-informed

policy options for governments with double- or triple-duty potential, and ideally with potential synergies and as few trade-offs as possible.

How were the good practice policies for governments identified?

International policy recommendations to transform food systems addressed at governments were compiled from 23 global sources. A total of 291 recommendations were gathered, classified into two core domains (food supply chains and food environments) composed of ten food system policy sub-domains. The recommendations were merged into an eventual list of 44 proposed good practice policies for governments.

A scoping review was conducted to examine the effects and effectiveness of those internationally recommended policies on the three primary outcomes associated to the Global Syndemic: (a) undernutrition, (b) obesity/NCDs, and (c) climate change (6). When available, the effect of those policies on (d) nutrition-related inequalities and (e) women’s empowerment were also reported. A total of 196 reviews were included in the analyses (10).

The interventions identified with triple-duty potential were sustainable agriculture practices (food production) and school food programmes (food provision). Food labelling, reformulation (food composition), in-store nudging interventions (food retail) and fiscal measures (food prices) showed double-duty potential across the outcomes. Food labelling also incentivizes reformulation (food composition) by the industry. Some interventions (i.e., school food programmes, reformulation, fiscal measures) reduce socio-economic differences in diets, whereas some food labelling policies may be more effective among women and higher socio-economic groups. A trade-off identified was that healthy food provision interventions may increase food waste in different settings. Overall, multi-component interventions were found to be the most effective to improve nutrition and inequalities. Policies combining nutrition and climate objectives are few and mainly of the information type (i.e., food labelling). However, the evidence remains scarce when it comes to the effect of policies on climate change and women’s empowerment.

Table 1. Overview of the core structure of the food systems, its two core domains and ten sub-domains considered, with a short description of each sub-domain

	Domains	Sub-domains	Description
Food systems	Food supply chains	Food production	This sub-domain concerns the extent to which the government ensures that there are policies to improve the initial production stage activities to source crops, livestock and fish (agriculture, aquaculture and fisheries).
		Food storage, processing, packaging and distribution	This sub-domain concerns the extent to which the government ensures that there are policies to improve the preparation, storage and processing that the crops, livestock and fish undergo once the product has been harvested. Once the food/drink has been transformed and packaged, it is transported and distributed to the suppliers or retailers.
		Food loss and waste	This sub-domain concerns the extent to which the government ensures that there are policies to reduce, and ideally eliminate, the quantity of food/drink products that are not consumed. Food loss refers to the decrease in edible food mass at the production, post-harvest and processing stages. Food waste refers to the food/drinks available for consumption that are disposed of either at the retail or consumer levels.
		Food trade	This sub-domain concerns the extent to which the government ensures that there are policies to improve the international treaties or trade conditions between countries, for food/drink products and their associated services.
	Food environments	Food composition	This sub-domain concerns the extent to which the government ensures that there are policies to encourage the reformulation of food/drink products by the industry, to change the mix of the product ingredients (salt, saturated fat, trans fat, added sugar) to try to make them healthier and/or more environmentally sustainable.
		Food labelling	This sub-domain concerns the extent to which the government ensures that there are policies to increase the information available to consumers on the packaging of food/drink products or menu boards in restaurants to understand their nutritional value and/or environmental impact.
		Food promotion	This sub-domain concerns the extent to which the government ensures that there are policies to regulate the marketing strategies for food/drink products that increase their appeal among consumers. It includes advertisements across all media (television, radio, internet), schools, public transport, sports halls, etc.
		Food provision	This sub-domain concerns the extent to which the government ensures that there are policies to improve the provision of food/drink products in government-funded settings (e.g., hospitals, schools, universities, elderly homes, prisons, military canteen).
		Food retail	This sub-domain concerns the extent to which the government ensures that there are policies to regulate the availability of food/drink products within communities (outlet density and location) and in-store (product placement).
		Food prices	This sub-domain concerns the extent to which the government ensures that there are pricing policies implemented by the government to modify the accessibility of some food/drinks to consumers (e.g., taxes, subsidies).

Table 2. Summary of evidence per policy (sub)domains and the overall direction of results per outcomes

		Primary outcomes				Secondary outcomes		
		Undernutrition	Nutrition/ healthy diets	Obesity/ NCDs	Climate change	Equity	Women's empowerment	
Food supply chains	Policy sub-domains	Production	↑	↑	↔*	↑*	0	↑*
		Storage, processing, packaging, distribution	↑	↑*	~	↑*	~	0
		Loss and waste	0	0	0	↑*	0	0
		Trade and investment	↓*	~	↓*	0	↓*	↓*
Food environments	Policy sub-domains	Composition	0	↑	↑*	0	↑*	0
		Labelling	0	↑	↑*	↑*	↓*	0
		Promotion	0	↑*	0	0	0	0
		Provision	↑*	↑	↑*	↑*	~	0
		Retail	↑*	↑	↑*	0	~	0
		Prices	↑*	↑	~	0	↑*	0

Legend: ↑: overall positive effect; ↔: overall neutral effect; ↓: overall negative effect; ~: inconclusive/mixed results; 0: no data/literature gap; *: the overall evidence goes towards that direction but the data available based on reviews is still limited.

Due to the lack of evidence available for some policy sub-domains and across the five outcomes studied, additional insights from international experts were gathered. This was done by conducting both online surveys and regional workshops across Europe, Latin America and Africa. The purpose of this expert consultation, which gathered around 100 experts working in the field, was to identify the perceived effects (double- or triple-duty potential), the effectiveness levels, potential synergies and trade-offs of the compiled list of 44 proposed policies for governments. Experts were also asked to choose the outcome area of their choice (i.e. undernutrition, obesity/NCDs, climate change, equity or women’s empowerment) and classify the proposed policies according to their perceived level of prioritization.

A total of 24 policies were perceived to have double-duty potential whereas 16 were perceived to have triple-duty potential. Experts identified different trade-offs in the area of food production, as some policies that were identified as beneficial for climate change and obesity/NCDs, if not designed properly may negatively impact crop yields or food accessibility due to an increase of prices of final products, impacting undernutrition. In addition, other policies perceived as

beneficial both for undernutrition and obesity/NCDs, such as fortifications programmes, if not designed properly may increase the consumption of unhealthy, ultra-processed foods. Some of the proposed policies, if not designed properly, may have impacts on inequalities, as some interventions can reduce the accessibility of food products. Therefore, to address all the complex aspects of food systems, the proposed policies should be contextualised and adapted to each situation and environment.

Policy recommendations

The policies are ordered according to their perceived prioritization within each sub-domain. Annex 1 provides the detailed list of policy recommendations. Their full description is available at: <https://www.researchsquare.com/article/rs-3281805/v1>

Food production

1. Subsidies for sustainable healthy crops/livestock/fish | Triple duty
2. Incentives for crop, fish and livestock diversification | Triple duty

3. Land use management | Double duty: undernutrition + climate change
4. Support for women's empowerment | Triple duty
5. Regenerative agriculture | Triple duty
6. Optimisation of water resources management | Single duty (but high relevance for climate change)
7. Farmers and fishers' support | Double duty: obesity/NCDs + climate change
8. Climate change impacts preparedness | Single duty (but high relevance for climate change)
9. Ecosystem restoration and conservation | Double duty: undernutrition + climate change
10. Farmers' access to traditional seeds and breeds | Double duty: obesity/NCDs + climate change
11. Sustainable carbon sequestration practices | Single duty (but high relevance for climate change)
12. Evidence-based reduction of the use of fertilisers | Double duty: obesity/NCDs + climate change
13. Evidence-based use of bio-fortification programmes | Double duty: undernutrition + climate change
14. Sustainable fisheries | Single duty (but high relevance for climate change)
15. Evidence-based reduction of the use of pesticides | Double duty: obesity/NCDs + climate change
16. Support to young generations | Double duty: obesity/NCDs + climate change

Food storage, processing, packaging and distribution

1. Support for start-ups and small and medium-sized enterprises producing more sustainable and healthier foods | Triple duty
2. Environmental impact measures | Double duty: obesity/NCDs + climate change
3. Connecting smallholder farmers with territorial markets | Triple duty
4. Evidence-based use of fortification programmes | Double duty: undernutrition + obesity/NCDs

Food loss and waste

1. Regulation framework at the retail level | Double duty: obesity/NCDs + climate change
2. Food loss and waste reduction through a step-wise process | Triple duty
3. Food loss prevention and reduction through infrastructure investment | Double duty: undernutrition + climate change

Food trade

1. Effective use of trade policy levers for sustainable food systems | Triple duty

2. Risk impact assessment of trade and investment agreements | Triple duty
3. Trade incentives for shorter food supply chains | Double duty: obesity/NCDs + climate change
4. Transparency of global food supply chains | Double duty: obesity/NCDs + climate change

Food composition

1. Reformulation of processed foods | Double duty: obesity/NCDs + climate change
2. Reformulation of out-of-home meals | Double duty: obesity/NCDs + climate change

Food labelling

1. Front-of-pack nutrition/environmental labelling | Double duty: obesity/NCDs + climate change
2. Evidence-based claim regulations | Double duty: obesity/NCDs + climate change
3. Nutrition information panels and ingredient lists | Double duty: obesity/NCDs + climate change
4. Out-of-home eating outlets' menu labelling | Double duty: obesity/NCDs + climate change

Food promotion

1. Marketing restrictions of less healthy and less sustainable foods to children across all media | Triple duty
2. Marketing restrictions on less healthy and less sustainable food in retail outlets | Double duty: obesity/NCDs + climate change
3. Marketing restrictions on breastmilk substitutes | Triple duty

Food provision

1. School food and nutrition policies | Triple duty
2. Accessibility of shorter food supply chains to consumers | Double duty: obesity/NCDs + climate change
3. Public sector setting (other than school) food and nutrition policies | Triple duty

Food retail

1. Zoning laws for healthier, more sustainable retail outlets | Double duty: obesity/NCDs + climate change
2. Prominence of healthier, more sustainable foods in the (in)formal food sector | Triple duty

Food prices

1. Affordability of healthier and more sustainable diets | Triple duty
2. Subsidies for healthier and more sustainable foods | Triple duty
3. Taxes on less healthy, less sustainable foods | Double duty: obesity/NCDs + climate change

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The policy brief is based on the following publications:

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Annex: Detailed list of policy recommendations

Food production

Subsidies for sustainable healthy crops/livestock/fish | Triple duty

Existing subsidies by the government intend to support sustainably produced crops, livestock and fish that contribute to healthier and more sustainable diets. These subsidised crops, livestock and fish shall be for food products intended for human consumption, and not for animal feed.

Incentives for crop, fish and livestock diversification | Triple duty

The government provides (non-)financial incentives to farmers and fishers to implement sustainable diversification practices, such as polyculture or crop-livestock integration, in:

- Food crops (including neglected and underutilised traditional crops);
- Livestock species;
- Fisheries (including algae and new/emerging finfish species).

Land use management | Double duty: *undernutrition + climate change*

The government has regulations in place that restrict how the land can be used to support environmental conservation, and address desertification and land degradation, including:

- Financial incentives to farmers in exchange for providing ecosystem services when managing the land and working on the land;
- Guidance on land use that encourages sustainable development.

Support for women's empowerment | Triple duty

The government has programmes in place that enhance the participation of women and give (non-)financial support to women in agriculture and fisheries, such as:

- Providing start-up grants, loans or guarantees (designed to help or advice on how best to enter sustainable farming);
- Guaranteeing decision-making power in leadership positions;
- Providing income support for sustainable technologies and sustainable innovation;
- Providing subsidies for land/infrastructure and storage facilities;

- Providing capacity development programmes for female farmers and fishers on sustainable and regenerative practices, and climate change adaptation;
- Prioritize female farmers and fishers when it comes to receiving basic payment entitlements from the national/regional reserve;
- Prioritize female farmers and fishers' access to local, national and international markets;
- Recognising and securing legitimate tenure right holders and their rights with customary tenure systems that exercise self-governance of land, forests, fisheries and/or water.

Equitable opportunities to earn and learn shall be compatible with safe pregnancy and breastfeeding.

Regenerative agriculture | Triple duty

The government has programmes in place to (non-)financially support regenerative agriculture practices that protect the soil, enhancing its fertility and health through:

- Sustainable soil remediation methods (e.g. bioremediation);
- Increase of soil's organic matter content;
- Nitrogen fixation practices and rotation systems;
- Crop rotation of the land and return of crop residues.

Optimisation of water resources management | Single duty (but high relevance for climate change)

The government requires farmers to integrate sustainable water resource management practices (e.g. managed aquifer recharge and storage, subsurface waste storage and injection) that optimise water resources and agricultural outputs per unit of water.

Farmers and fishers' support | Double duty: *obesity/NCDs + climate change*

The government has programmes in place to support farmers and fishers taking part in the transition towards sustainable food systems, such as:

1. Subsidizing access to sustainable technologies and innovation (including digital technologies);
2. Providing skill training and capacity development programmes on sustainable and regenerative practices, and climate change adaptation.

Climate change impacts preparedness | Single duty (but high relevance for climate change)

The government has programmes in place for climate change impact preparedness that enhance the resilience of food supply chains, such as:

- weather insurance for farmers and fishers;
- interventions to reduce and manage price volatility;

in case of pests, diseases, weather-related shocks or emergencies.

Ecosystem restoration and conservation | Double duty: *undernutrition + climate change*

The government has programmes in place to conserve and protect biodiversity across:

- Lands and forests (zero-expansion policy of new agricultural land, restoring and reforesting degraded land)
- Waters, oceans and coastal seas (marine protected areas, mangrove forests)

Adopting a "Half-Earth" strategy for biodiversity conservation.

Farmers' access to traditional seeds and breeds | Double duty: *obesity/NCDs + climate change*

The government has programmes in place that protect ancestral, traditional seeds and breeds, such as:

- Making them economically accessible to smallholder/family farmers, prioritising them over industrial varieties;
- Declaring ancestral seeds and breeds as public goods (property of the local community).

Sustainable carbon sequestration practices | Single duty (but high relevance for climate change)

The government has programmes in place to (non-)financially support agroecological practices that enhance natural carbon capture, such as:

- Bio-sequestration practices through agroforestry systems (e.g. agrosilvocultural, agrosilvopastoral);
- Afforestation or reforestation practices;
- Use of cover crops;
- Organic farming restoration of agriculturally degraded lands.

Evidence-based reduction of the use of fertilisers | Double duty: *obesity/NCDs + climate change*

The government has regulations in place to reduce, based on scientific evidence*, the synthetic use of fertilisers, including:

- Targets for reductions of nitrogen and phosphorus discharges;
- Fertilisers accounting systems;
- Nitrogen quota systems;
- Taxes on phosphorus content in feed;
- Promotion of micro-dosing techniques;
- Support for the use of natural fertilisers (such as manure or compost) in large areas of land;
- Protection of groundwater and coastal areas from fertiliser pollution.

*The complete reduction of fertilisers can only be made in large areas of land and for "long-term crops" (such as tea or coconut), but not for "short-term crops" (such as rice).

Evidence-based use of bio-fortification programmes | Double duty: *undernutrition + climate change*

The government has implemented a plan to prevent micronutrient deficiencies among the population, according to a hierarchy scheme in which priority will be given to the promotion of healthier and more sustainable crops that are part of a diversified diet. The plan establishes clear evidence-based criteria according to national guidelines (and food security programmes, if any) to justify the use of nutrition-sensitive agriculture and bio-fortification programmes for healthier and more sustainable crops.

Sustainable fisheries | Single duty (but high relevance for climate change)

The government's national fisheries management policy directives guarantee that fishing activities carried out by the national fleet are environmentally sustainable (including artisanal fish and other aquatic systems) and require fully-documented fisheries taking into account bycatch and the preservation of marine ecosystems and sensitive species.

Evidence-based reduction of the use of pesticides | Double duty: *obesity/NCDs + climate change*

The government has regulations in place to reduce, based on scientific evidence, the use of chemical pesticides, including:

- Avoiding the use of hazardous chemical pesticides;
- Promoting best practices to minimise the associated risks to human health and the environment;
- Encouraging farmers to use sustainable prevention techniques for disease and pest management.

Support to young generations | Double duty: *obesity/NCDs + climate change*

The government has programmes in place that give (non-)financial support to young generations (<40) in sustainable agriculture and fisheries, such as:

- Providing start-up grants, loans or guarantees (designed to help or advice on how best to enter sustainable farming);
- Guaranteeing decision-making power in leadership positions;
- Providing income support for sustainable technologies and sustainable innovation;
- Providing subsidies for land/infrastructure and storage facilities;
- Providing capacity development programmes for young farmers and fishers on sustainable and regenerative practices, and climate change adaptation;
- Prioritize young farmers and fishers when it comes to receiving basic payment entitlements from the national/regional reserve;
- Prioritize young farmers and fishers' access to local, national and international markets;
- Recognising and securing legitimate tenure right holders and their rights with customary tenure systems that exercise self-governance of land, forests, fisheries and/or water.

Food storage, processing, packaging and distribution

Support for start-ups and small and medium-sized enterprises producing more sustainable and healthier foods | Triple duty

The government provides (and if already in place, makes good use of) investment funds for start-ups, and small- and medium-sized food businesses that store, process, package and/or handle healthier and more sustainable foods. A fixed amount of the funding is addressed to employment generation in rural areas and distant locations.

Environmental impact measures | Double duty: *obesity/NCDs + climate change*

The government requires the food-producing companies to measure the environmental impact of individual food and drink products by calculating in a standardised way an eco-score (e.g. life-cycle analysis, full environmental footprint) for the environmental impact.

Connecting smallholder farmers with territorial markets | Triple duty

The government has programmes in place to guarantee that the local, fresh and diverse production of smallholder/family farmers reaches territorial markets (urban, peri-urban and rural), such as:

- Investing in railway (preferred) or road transportation and infrastructure;
- Investing in storage facilities to be rented at lower prices to smallholder/family farmers;
- Providing grants allocated to the construction of storage facilities in-farm;
- Covering the costs associated with hygienic practices for food storage and handling before selling;
- Tax exemptions on infrastructure use.

Priority is given to smallholder/family farmers coupled with organic farming, agroecology or sustainable agriculture practices.

Evidence-based use of fortification programmes | Double duty: *undernutrition + obesity/NCDs*

The government has implemented a plan to prevent micronutrient deficiencies among the population, according to a hierarchy scheme in which priority will be given to the promotion of healthier and more sustainable foods as part of a diversified diet. The plan establishes clear evidence-based criteria according to national guidelines (and food security programmes, if any) to justify the use of either:

- Mandatory large-scale food fortification programmes to increase the availability of nutrients (e.g. iron, folate, zinc) in healthier and more sustainable foods available to all population groups;
- The distribution of healthier and more sustainable micronutrient-fortified foods targeted at specific population groups;
- Supplements targeted at population groups severely affected.

Food loss and waste

Regulation framework at the retail level | Double duty: *obesity/NCDs + climate change*

The government has programmes in place to minimise food waste at the retail level:

- Bars, cafeterias and restaurants shall be obliged to make it possible for consumers to take home food that they have not consumed, at no additional cost. To this end, reusable or easily recyclable packaging suitable for food use must be available to the consumer;

- Supermarkets shall have sales lines for "ugly, imperfect or un-aesthetic" products, promoting the consumption of seasonal, healthier and/or more sustainable products.

Food loss and waste reduction through a step-wise process | Triple duty

The government requires all stakeholders across the food supply chain to have programmes in place that reduce (and ideally eliminate) food loss and waste, such as:

- Elaborating a prevention plan according to a hierarchy of uses for food fit for consumption but consciously discarded, in which priority will be given to human consumption:
- Priority: fiscal measures, such as tax breaks or price adjustments, giving supremacy to fresh, healthier and more sustainable foods;
- Second step: human consumption through a donation to organisations (such as food banks), giving supremacy to fresh, healthier and more sustainable foods, and avoiding (if possible) ultra-processed foods. Companies should sign agreements with the receiving organisations specifying the conditions for collection, storage and transport.
- Third step: to transform food into other edible products for human consumption.
- Fourth step: to use the food as animal feed.
- Last uses: processing of industrial by-products and recycling into compost or fuels.
- Implementing a mandatory food waste reporting system.

The government contemplates financial penalties for institutions that do not comply with this legislation.

Food loss prevention and reduction through infrastructure investment | Double duty: *undernutrition + climate change*

The government minimises food losses across the whole food supply chain by investing in sustainable infrastructure that improves post-harvest techniques and fosters the development of facilities for post-harvest storage, food processing and transportation.

Food trade

Effective use of trade policy levers for sustainable food systems | Triple duty

The government adopts measures to manage investment and protect its regulatory capacity from the influence of vested interests on policy and uses trade

policy levers more effectively to ensure environmental sustainability and the availability and accessibility of healthier and more sustainable foods, prevent overweight and obesity, reduce food insecurity and under-nutrition, and promote food policy space. Instruments such as appropriate tariffs can help shift foods available domestically as well as their relative prices.

Risk impact assessment of trade and investment agreements | Triple duty

The government conducts cross-ministry and cross-sector risk impact assessments before the negotiation and implementation of multilateral and bilateral trade and investment agreements, to identify, evaluate and minimise the direct and indirect impacts of such agreements on the population's nutrition and health, food security and environmental sustainability, both domestically and in third countries. The assessment includes an analysis of trade-offs interconnected to these factors. Focus is given to reducing health and gender inequalities.

Trade incentives for shorter food supply chains | Double duty: *obesity/NCDs + climate change*

The government provides trade policy incentives that enable shorter food supply chains linking cities to secure a supply of healthier and more sustainable foods and ensuring that priority is given to food from exports and imports that do not contribute to deforestation, land use change, biodiversity loss, eutrophication, or to the displacement of vulnerable groups from their traditional lands.

Priority is given to shorter food supply chains coupled with organic farming, agroecology or sustainable agriculture practices.

Transparency of global food supply chains | Double duty: *obesity/NCDs + climate change*

The government fosters sustainable and responsible corporate behaviour throughout the global value chains, such as:

- Implementing Participatory Guarantee System (PGS) for sustainable production;
- Requiring companies to identify and, where necessary, prevent, end or mitigate adverse impacts of their activities on the environment (e.g. pollution, use of hazardous chemicals, biodiversity loss).

Food composition

Reformulation of processed foods | Double duty: obesity/NCDs + climate change

Food composition targets/ standards/ restrictions/ bans have been established by the government for:

- the content of energy, nutrients of concern (trans fats, added sugars, saturated fat) and sodium;
- the use of less healthy and less sustainable ingredients (e.g. palm oil, animal protein sources);
- the portion sizes of processed foods.

Reformulation of out-of-home meals | Double duty: obesity/NCDs + climate change

Food composition targets/ standards/ restrictions/ bans have been established by the government for:

- the content of energy, nutrients of concern (trans fats, added sugars, saturated fat) and sodium;
- the use of less healthy and less sustainable ingredients (e.g. palm oil, animal protein sources);
- the portion sizes of meals sold by food service outlets, food delivery services and informal food outlets (e.g. food street vendors).

Food labelling

Front-of-pack nutrition/environmental labelling | Double duty: obesity/NCDs + climate change

A mandatory, consistent, evidence-informed front-of-pack label with a:

- Nutrition information system (e.g. warning labels, numerical/colour-coded, graded indicators)
- Environmental information system (e.g. lifecycle analysis-inspired label, full environmental footprint label)

is required for all packaged foods (either combined or separate), which readily allows consumers to assess a product's healthiness and/or environmental impact.

Evidence-based claim regulations | Double duty: obesity/NCDs + climate change

Robust, evidence-based regulatory systems are in place for:

- Approving/reviewing nutrition and health claims on foods, according to an evidence-based independent nutrient profile model;
- Approving/reviewing environmental sustainability claims

so that consumers are protected against misleading claims on packaged foods which lack scientific evidence.

Nutrition information panels and ingredient lists | Double duty: obesity/NCDs + climate change

- Ingredient lists and nutrient declarations in line with the most recent Codex recommendations are present on the labels of all packaged foods.
- Regulations ensure that information concerning the quantity of added sugar and trans-fat within a food product is presented clearly in the nutrition information panel of all relevant packaged foods.
- Regulations ensure that information concerning the type of all fats and oils (e.g. palm oil, sunflower oil) and added sweeteners (e.g. fructose, dates, honey) within a food product is presented in the ingredient list of all relevant packaged foods.

Out-of-home eating outlets' menu labelling | Double duty: obesity/NCDs + climate change

A consistent, simple, clearly-visible system of menu labelling is required for all out-of-home eating outlets (including vending machines) with a:

1. Nutrition information system (e.g. energy content, the content of nutrients of concern, warning labels, numerical/colour coded, graded indicators);
2. Environmental information system (e.g. lifecycle analysis-inspired label, full environmental footprint label);

for all foods and meals on sale.

Food promotion

Marketing restrictions of less healthy and less sustainable foods to children across all media | Triple duty

Comprehensive, mandatory regulations with effective enforcement are implemented by the government to restrict exposure and power of promotion of less healthy and less sustainable foods to children, and/or their parents/caregivers across all types of media, including:

1. Broadcast media (television, radio);
2. Non-broadcast media (e.g. internet, online videogames, influencers/social media);
3. Food packaging;
4. Sports clubs and events (e.g. sponsorship, billboards/advertising posters);
5. In public settings where children gather (e.g. outdoor advertising around preschools, schools, train stations, buses and cultural events).

Marketing restrictions on less healthy and less sustainable food in retail outlets | Double duty: obesity/NCDs + climate change

The government has regulations in place to restrict the marketing of less healthy, less sustainable foods within supermarkets and other retail stores, including restrictions on product placement in prominent in-store positions (e.g. checkouts, end-of-aisle displays), price discounts, and sales targeting children and/or their parents/caregivers.

Marketing restrictions on breastmilk substitutes | Triple duty

The government implements, across all media and settings, the policies and practices of the 'International Code of Marketing of Breast-milk Substitutes' and 'World Health Assembly Resolutions' (e.g. prohibit the promotion of breastmilk substitutes, feeding bottles and teats) and restricts the marketing of breastmilk substitutes to adult women of reproductive age, pregnant women, parents of children under three years, caregivers and healthcare providers.

Food provision

School food and nutrition policies | Triple duty

The government implements clear, consistent policies in schools and early childhood education services with food service activities (nutrition standards for canteens, food at events, fundraising, promotions, vending machines etc.) that:

1. Promote safe drinking water (safe tap water or water fountains);
2. Provide and promote healthier and more sustainable foods based on nutritional guidelines;
3. Prioritize the purchase of seasonal, healthier and more sustainable foods;
4. Restrict less healthy and less sustainable foods and beverages.

Accessibility of shorter food supply chains to consumers | Double duty: obesity/NCDs + climate change

The government gives financial support to shorter food supply chains initiatives that connect farmers and consumers, such as:

1. Community-Supported Agriculture;
2. Promoting the direct sale of agricultural products by farmers on territorial markets without intermediaries;
3. On-farm sales or off-farm schemes (farmers markets, delivery schemes);
4. Producer-to-consumer networks;

5. Collective sales towards public institutions;
6. Other policy tools, such as training and knowledge exchange in marketing and communication on shorter food supply chains, shall (or, if already in place, continue) to be funded by Rural Development programmes.

Special focus is given to smallholder/family farmers coupled with organic farming, agroecology or sustainable agriculture practices.

Public sector setting (other than school) food and nutrition policies | Triple duty

The government has clear, consistent policies in place to guarantee that public procurement and public sector settings (other than school and early childhood education services) with food service activities (e.g. hospitals and healthcare facilities, universities, nutrition standards for public canteens, public events, food banks, armed forces, prisons):

1. Promote safe drinking water (safe tap water or water fountains);
2. Provide and promote healthier and more sustainable food choices based on nutritional guidelines and prioritising the purchase of seasonal, nutritious and sustainable foods;
3. Restrict less healthy and less sustainable foods and beverages.

Food retail

Zoning laws for healthier, more sustainable retail outlets | Double duty: obesity/NCDs + climate change

1. Zoning schemes, regulations and policies (e.g. tax incentives) are robust enough and are being used, where needed, by the government to place limits on the density or placement of quick-service restaurants or other outlets selling mainly less healthy and less sustainable foods.
2. Zoning schemes are in place to attract healthier and more sustainable grocery stores, kiosks or markets with a focus on underserved, low-income areas.

Prominence of healthier, more sustainable foods in the (in)formal food sector | Triple duty

The government requires prioritisation of the placement and prominence of healthier and more sustainable foods and the limitation of the in-store availability of less healthy and less sustainable foods, for:

1. Formal food vendors (including food stores and supermarkets);

2. Informal food vendors (including food trucks and street vendors).

Food prices

Affordability of healthier and more sustainable diets | Triple duty

The government requires existing food-related income support programmes (e.g. vouchers, cash, school feeding) to make healthier and more sustainable foods accessible for low-income households and vulnerable groups.

Subsidies for healthier and more sustainable foods | Triple duty

The intent of existing subsidies/or value-added tax reductions by the government is for healthier and more sustainable foods (e.g. fruits, vegetables, beans and lentils, whole grains).

Taxes on less healthy, less sustainable foods | Double duty: obesity/NCDs + climate change

1. The government imposes taxes on less healthy foods (e.g. foods high in nutrients of concern or nutrients of concern in foods) to increase the prices of these foods by at least 20% to discourage less healthy food choices where possible.
2. The government imposes taxes on less sustainable foods and/or ingredients (e.g. red and processed meat, palm oil) to increase the prices of these foods by at least 20% to discourage less sustainable food choices where possible.
3. These tax revenues are ideally re-invested to create healthier and more sustainable food systems, re-invest in infrastructure (e.g. quality of tap water) or value-added tax reductions of healthier and sustainable foods or beverages.