



NWGN recommendations for Dutch Food and Nutrition Security policy

September 2019

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Executive Summary

Recently a number a number of important reports have been published about nutrition, healthy diets and sustainable food systems. The Netherlands Working Group on international Nutrition (NWGN) analysed these in the context of the Dutch Food and Nutrition Security (FNS) policy. Our main recommendations are three-fold: 1) Make the Dutch FNS policy an integral part of, and consistent with, Dutch (and European) food-, trade-, agriculture-, environment and other policies as an integrated approach to transform food systems towards healthy and sustainable diets. 2) Promote more coherence and synergies between projects and programs, striving towards region- and context specific dietary shifts, taking into account a food systems approach. 3) Build on the so-called “Dutch Diamond” approach but critically reflect on current practice and recommendations in these reports to a) promote supportive regulatory and policy frameworks that protect society and environment from adverse impact of unsustainable private sector growth; b) stimulate that actions on healthy diets by society are scaled up; c) and as a partnership become more efficient and effective to create more value and impact on the quality of local diet and inclusive well-being without negative impact on climate and natural resources. More specifically we recommend to make agriculture more responsive to dietary diversity needs, include workforce nutrition in all agricultural value chain projects and shift Dutch FNS investments towards strengthening fruit and vegetable value chains to become more sustainable, resilient and nutrition sensitive.

Introduction

In October 2017, the Policy and Operations Evaluation Department (IOB) of the Dutch Ministry of Foreign Affairs (MFA) reviewed the Dutch food security policy in the period 2012–2016¹. It provides recommendations for improving the policy's effectiveness.

In 2018 and 2019, a number of important reports have been published about nutrition, healthy diets and sustainable food systems:

- Global Nutrition Report 2018²
- The EAT–Lancet Commission on healthy diets from sustainable food systems³
- The Lancet Commission report on The Global Syndemic of Obesity, Undernutrition, and Climate Change⁴
- The 2019 Global food policy report by IFPRI⁵

It requires substantial effort to read these reports, let alone to get a comprehensive overview of the most important recommendations and implications for Dutch Food and Nutrition Security (FNS) policy in addition to the recommendations made by IOB. The Ministry of Foreign Affairs (MFA)⁶ and Ministry of Agriculture, Nature and Food Quality (MANFQ) of the

Dutch government have asked for input for its FNS policy from Dutch stakeholders, including the Netherlands Working Group on international Nutrition (NWGN)⁷.

Whilst both Ministries already sent a renewed FNS policy letter to Parliament in June 2019⁸, we believe that this report provides in a concise format the most relevant recommendations for the Dutch FNS policy. Our recommendations are based on the recommendations of these reports to the Dutch FNS policy context. An overview summary of all above mentioned reports is available (see page 3) as well as summaries of each report (see Appendices page 9) and an overview of the recommendations in table form (see Appendices page 15).

Lastly, we want to remark that the UN recently published two papers that are relevant to the scope of our work as well, but as they were published long after we had started with our work, we have not analysed them to the full extent as we have with the aforementioned reports. The first is (an advanced unedited edition of) the global assessment report on biodiversity and

1 IOB – Review of Dutch food security policy 2012–2016 – Food for thought <https://www.iob-evaluatie.nl/publicaties/beleidsdoorlichtingen/2017/10/01/419-%E2%80%93-iob-%E2%80%93-review-of-dutch-food-security-policy-2012-2016-%E2%80%93-food-for-thought>

2 Development Initiatives, 2018. 2018 Global Nutrition Report: Shining a light to spur action on nutrition. Bristol, UK: Development Initiatives. <https://globalnutritionreport.org/>

3 The Lancet 2019; 393: 447–92; Published Online January 16, 2019 <https://www.thelancet.com/commissions/EAT>

4 The Lancet 2019; 393: 791–846 Published Online January 27, 2019 <https://www.thelancet.com/commissions/global-syndemic>

5 IFPRI. 2019 Global food policy report. 2019. Washington, DC: International Food Policy Research Institute (IFPRI). <http://www.ifpri.org/publication/2019-global-food-policy-report>

6 With MFA, we refer to both the Ministry in The Hague and Dutch embassies around the world.

7 NWGN members from the Dutch government, i.e. The Ministry of Foreign Affairs and The Netherlands Enterprise Agency RVO, are not signatories of this report, as the report is directed to them. See for the complete list of NWGN members www.the-nwgn.org

8 S.A.M Kaag and C.J. Schouten, *Op weg naar een wereld zonder honger in 2030: de Nederlandse inzet*, 6 June 2019. https://www.tweedekamer.nl/kamerstukken/brieven_regering/detail?id=2019Z11528&did=2019D23725

ecosystem services⁹, which, amongst others, described how biodiversity and food production are interdependent and should be advanced. The second report is “The State of Food Security and Nutrition in the World 2019” report¹⁰.

However, these two reports are consistent with the recommendations of the aforementioned reports although they focus on different aspects of climate, biodiversity, nutrition and food systems.

Methodology

Three NWGN members, Arine Valstar, Saskia Osendarp and Herbert Smorenburg, reviewed the following reports and made a summary of their most relevant recommendations (except for the IPBES and State of Food Security reports).

- IOB review of the Dutch food security policy in the period 2012-2016¹
- Global Nutrition Report 2018²
- The EAT–Lancet Commission on healthy diets from sustainable food systems³
- The Lancet Commission report on The Global Syndemic of Obesity, Undernutrition, and Climate Change⁴
- The 2019 Global food policy report by IFPRI⁵
- The UN IPBES report⁹
- The UN State of Food Security and Nutrition in the World 2019” report¹⁰

The three authors wrote an analysis and synthesis of recommendations against the current FNS policy and IOB recommendations. This supported Saskia Osendarp who represented the NWGN in an expert panel during MFA’s Launch of the EAT-Lancet Report and IFPRI’s 2019 Global Food Policy report on 4 June 2019. After this event the draft recommendations were finalized and shared with the whole NWGN for input, resulting in this final report.

9 <https://www.ipbes.net/document-library-catalogue/summary-policymakers-global-assessment-report-biodiversity-ecosystem>

10 *FAO, IFAD, UNICEF, WFP and WHO. 2019. The State of Food Security and Nutrition in the World 2019. Safeguarding against economic slowdowns and downturns. Rome, FAO.*
<https://www.unicef.org/media/55921/file/SOFI-2019-full-report.pdf>

Overarching summary of all reports together

NWGN reflections on reports on climate change, nutrition and sustainable food systems.

1. Global hunger and undernourishment continued to rise for the 3rd year in a row in 2018, while there was a stagnation in malnutrition. More countries are suffering from a double- or triple burden: multiple forms of malnutrition: obesity¹¹, under-nutrition and micronutrient deficiencies, while the negative health effects of climate change will exacerbate these health challenges. The Global Syndemic represents the combined effects of these three pandemics: obesity, undernutrition and climate change and affects most people worldwide. Yet, food and nutrition security remain peripheral issues at many high-level events and summits and at national level. This is due, at least in part, to “policy inertia: a collective term for the combined effects of inadequate political leadership and governance to enact policies to respond to The Global Syndemic, strong opposition to those policies by powerful commercial interests, and a lack of demand for policy action by the public”.
2. Climate change is one important key factor for the global rise in hunger and undernourishment, while global food production and the current food systems are the most important contributors to CO₂ emissions and a threat to climate stability. It is important therefore to develop integrated solutions, which are good for planet and people (taking all forms of malnutrition into account). These so-called double- or triple-duty actions require a systems approach and transformation of the entire food system addressing the underlying drivers of the Global Syndemic: food and agriculture, transportation, urban design and land use.
3. In general, this will require substantial dietary shifts, ultimately leading to an increase in consumption of fruit, vegetables, legumes and nuts, and a decrease of unhealthy foods such as added sugar, ultra-processed foods (i.e. foods high in energy and low in nutrients) and animal source products, especially red meat. However, the changes needed differ greatly by region and are context-specific, e.g. many vulnerable groups in low income countries should still increase their consumption of animal-source foods in order to meet their micronutrient requirements.
4. Initiatives to address The Global Syndemic at community, regional and national level need to be reinforced by regulatory and policy frameworks, as well as economic incentives and disincentives, to provide healthy and affordable food and beverage choices and promote social and economic environments that encourage physical activity and healthy behaviours.
5. To achieve these changes, a comprehensive and multi-sectoral context specific approach is required to move the dominant food system to a desired sustainable food system that provides healthy diets. This will require the buy-in of all partners, actors and especially consumers. The silos between agriculture, climate, water and sanitation, health care and nutrition will need to be abandoned and nutrition-specific and nutrition-sensitive interventions need to be integrated. Governments and civil society will need to lead the governance of developing and implementing evidence-based policies beneficial for society, health and planet, without vested commercial bias. The private sector needs to be encouraged to be part

¹¹ When we mention “Obesity” we refer to “Overweight and Obesity”.

of the solution by developing sustainable and health-promoting business models and shift business outcomes from a short-term profit focus only, to sustainable, profitable models that explicitly include benefits to consumers, society and the environment. Simultaneous rural and urban development to support “rural revitalization¹²” as proposed by IFPRI can be the “linchpin” to achieve positive change in food and nutrition security (FNS) and improve overall wellbeing.

6. Agricultural priorities need to shift from producing high quantities of food to producing high quantities of healthy and more diverse foods by sustainably intensifying production with reduced environmental impact. Alongside dietary shifts, agricultural and marine policies must be reoriented toward a variety of nutritious foods rather than aiming for increased volume of a few crops. Agricultural investments need to become nutrition-sensitive.
7. This is consistent with the biodiversity report⁹ which states “Feeding humanity and enhancing the conservation and sustainable use of nature are complementary and closely interdependent goals that can be advanced through sustainable agricultural, aquacultural and livestock systems, the safeguarding of native species, varieties, breeds and habitats, and ecological restoration.”

¹² *Focusing on rural areas is one of the most practical ways to achieve the SDGs. A ‘rurbanomics’ approach focuses on strengthening the urban-rural linkages to transform and promote rural transformation.*

Implications for Dutch FNS policy

The complex interactions between climate change, food security and nutrition call for a holistic, integrated approach benefiting both planet and people.

General recommendations

In order to meet the goals on reducing hunger and malnutrition within environmental limits, the Dutch FNS policy should be an integral part of, and consistent with, Dutch (and European) food-, trade-, agriculture-, environment and other policies as an integrated approach to transform food systems towards healthy and sustainable diets¹³.

The Dutch FNS policy should promote more coherence and synergies between projects and programs, striving towards region- and context specific dietary shifts, taking into account the supply, demand and enabling environment of the food system.

Thereto collaboration between stakeholders and actors in the entire food system is necessary. The well-known “Dutch Diamond” approach, in which government, civil society, knowledge institutes and private sector work together, is a good and necessary approach but requires constructive and critical reflections to include consumer perspectives and needs and become more efficient, effective and create more value and impact on quality of diet and inclusive well-being without negative impact on climate and natural resources.

Specific recommendations

Make agriculture more responsive to dietary diversity needs and sustainable (both biodiversity and climate-friendly)

- Agriculture programs should respond to the dietary diversity needs and support access to and consumption of high-quality, diverse, safe, adequate and sustainable local diets.
- These programs should be designed carefully, taking the specific context into account, and use formative research to test if assumptions in the agricultural impact pathways are valid, and identify main constraints that limit households’ and individual’s access to healthy diets. It goes beyond the scope of this report to provide recommendations how this should be done, but there is ample guidance available (see e.g. FAO¹⁴ and IFAD¹⁵ guidance documents) and the NWGN is planning to compile an overview of available tools and methods separately.
- One of the contextual conditions to take into account is market access. Programs aiming at improving agricultural production diversity only impact household’s dietary diversity for households with limited access to markets¹⁶. Households that have access to markets could benefit from a diversified supply in markets, (des-)incentives for the food industry, as well as adequate behavioural change interventions and women’s empowerment.

¹³ “Sustainable diets are those with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources”. *Sustainable Diets and Biodiversity directions and solutions for policy, research and action*, FAO, 2012

¹⁴ FAO Toolkit on nutrition-sensitive agriculture and food systems, 2015 <http://www.fao.org/nutrition/policies-programmes/toolkit/en/>

¹⁵ IFAD Nutrition-sensitive value chains A guide for project design, 2018 <https://www.ifad.org/en/web/knowledge/publication/asset/40805038>

¹⁶ Ruel, M.T., *Nutrition-sensitive agriculture: What have we learned so far?* Global Food Security (2018), <https://doi.org/10.1016/j.gfs.2018.01.002>

- Initiatives to make agricultural programs sustainable and nutrition sensitive should be supported by capacity development, lobby and advocacy to local, regional and national policy makers to make the regulatory and policy frameworks conducive for such initiatives, and provide supportive infrastructure (roads, electricity, access to water). Simultaneous rural and urban development to support “rural revitalization” as proposed by IFPRI is a great example of such an integrated, synergistic and complementary approach.
- Support to sustainable nutritious value chains will require a shift in focus from large scale animal food value chains to plant-based food value chains. We recommend that NL focusses its investments on fruits, vegetables and pulses value chains and on integrated (plant and livestock) sustainable farming systems for smallholders based on circular principles.
- Include measurements of dietary shifts in assessments of agricultural programmes, rather than stunting and obesity outcomes.

Develop triple duty integrated nutrition-sensitive and nutrition-specific interventions

Integrated nutrition-sensitive¹⁷ and nutrition-specific¹⁸ interventions are most powerful to prevent malnutrition in all its forms. Nutrition sensitive interventions usually need to be supported with a behaviour change commu-

nication (BCC) component (which falls under “specific”) to realise and enhance the impact on nutrition.

The 2015 Global Nutrition Report first used the term double-duty actions to describe programmes and policies that could potentially reduce the burden of both undernutrition and NCDs related to overweight, obesity, or diet¹⁹. Examples of double-duty actions provided in the Global Nutrition Report included actions to promote breastfeeding in workplaces, urban planning for healthy food outlets and discouraging outlets for unhealthy food, ready access to clean water, and universal health care. The 2017 Global Nutrition Report proposed that triple-duty actions could yield multiple benefits across the SDGs²⁰. The Global Syndemic report gives examples of triple-duty actions as actions that on top of addressing obesity and undernutrition also address climate change thus supporting the design of integrated, systemic interventions. Examples given by the Global Syndemic report are listed in Table 1 and Figure 1 in the Appendices. We want to highlight two examples that we consider in particular relevant for the Dutch FNS context.

- Include “workplace nutrition” as mandatory aspect in Dutch funded agricultural value chains projects. Workplace nutrition should include breastfeeding policies (parental leave and support to mothers who want to continue

¹⁷ The Lancet coined the terminology nutrition sensitive and nutrition specific. Under nutrition sensitive belong the following interventions and approaches that indirectly impact nutrition: Agriculture and food security; Social safety nets; Early child development; Maternal mental health; Women’s empowerment; Child protection; Classroom education; Water and sanitation; Health and family planning services (Maternal and Child Nutrition, Lancet Executive Summary 2013)

¹⁸ Under nutrition specific belong the following more direct interventions and programmes: Adolescent health and pre-conception nutrition; Maternal dietary supplementation; Micronutrient supplementation or fortification; Breastfeeding and complementary feeding; Dietary supplementation for children; Dietary diversification; Feeding behaviours and stimulation; Treatment of severe acute malnutrition; Disease prevention and management; Nutrition interventions in emergencies. (Maternal and Child Nutrition, Lancet Executive Summary 2013)

¹⁹ International Food Policy Research Institute. *Global Nutrition Report 2015: Actions and Accountability to Advance Nutrition and Sustainable Development*. Washington, DC: International Food Policy Research Institute, 2015. <https://globalnutritionreport.org/reports/2015-global-nutrition-report/>

²⁰ Development Initiatives, 2017. *Global Nutrition Report 2017: Nourishing the SDGs*. Bristol, UK: Development Initiatives. <https://globalnutritionreport.org/reports/2017-global-nutrition-report/>

breastfeeding or express milk on returning to work), but also access to and “easy choice” to adequate, high-nutrient dense, safe and sustainable foods in the workplace in particular for women of reproductive age and pregnant and lactating women. GAIN and UNICEF are working in the field of workplace nutrition and can provide guidance. These measures can address multiple forms of malnutrition and improve livelihoods of local producers and productivity at the workplace.

- Strengthening fruit and vegetable value chains to become more sustainable, resilient and nutrition sensitive. As mentioned above, these value chains should incorporate workplace nutrition. But the nutrition impact of investments in fruit and vegetable value chains goes beyond workplace nutrition. Applying (Dutch) technology and know-how to make fruits and vegetables value chains focused on local markets more productive, climate change resilient and enhance nutrient density (selecting nutrient dense varieties / preventing losses) in the chain can contribute to improved nutrition, livelihoods and climate change prevention.

Learn from the experience of the Dutch Diamond approach in FNS

The recent IOB evaluation¹ provides 11 concrete recommendations. These recommendations are all valid and consistent with the conclusions and recommendations mentioned in the four reports. In addition, we recommend to:

- Ensure a better integration of the knowledge institutes in policy development and program design, for instance in the design of policy instruments such as the SDGP facility.²¹
- Put more emphasis on the role of Dutch embassies and NGOs to lobby and advocate for supportive regulatory and policy frameworks that protects society and environment from adverse impact of unsustainable private

sector growth. Dutch embassies and NGOs should galvanise action on healthy diets and stimulate that the lead taken by society (e.g. communities, cities and city networks) to improve food systems and food environments will be scaled up.

- Reflect on the experiences of a decade of working with the private sector, and take into account external knowledge about effective public private partnerships, to find answers to the questions raised in the reports:
 - How to ensure more support goes to family farms, smallholders and small and medium sized enterprises (SMEs) in Dutch Diamond interventions and other public-private-partnerships?
 - How to strengthen governance and corresponding capacity development to ensure that governments and civil society take control over developing and implementing evidence-based policies beneficial for health and planet, without vested commercial bias?
 - How to overcome conflict of interest without undermining benefits to health and planet?
 - How to encourage the private sector to be part of the solution and leverage the partnership with other diamond actors to developing sustainable and health-promoting business models and shift business outcomes from a short-term profit focus only, to sustainable, profitable models that explicitly include benefits to society and the environment, reaching the most vulnerable groups in particular?
 - How to increase accountability of all partners in the Diamond to deliver on their commitments and achieve triple duty outcomes? What are the optimal principles of engagements in PPPs?
- Share these insights, experience and lessons learned with the international community.

²¹ <https://english.rvo.nl/subsidies-programmes/sdg-partnership-facility-sdgp>

Appendix Summary for each report

Global Nutrition Report 2018²

- In light of the complicated nature of malnutrition, Japan calls for a comprehensive and multi-sectoral approach to improving nutrition in developing countries, focusing specifically on agriculture and food systems.
- The global community and national stakeholders have never been better placed to deliver results, with more governance, policies, actions, plans and targets. Advances in data are enabling us to progress our understanding of the nature of the burden of malnutrition in all its forms and its causes – and therefore guide and inspire action and improve our ability to track progress. Progress to date is simply not good enough but we have an unprecedented opportunity to get back on track.
- Five critical steps
 1. Break down silos and develop comprehensive programmes
 2. Prioritise and invest in the data needed and capacity to use it
 3. Scale up and diversify financing for nutrition
 4. Focus on healthy diets to drive better nutrition everywhere
 5. Improve the targets and commitments to end malnutrition in all its forms, make them SMART
- Global food production currently threatens climate stability and ecosystem resilience. It constitutes the single largest driver of environmental degradation and transgression of planetary boundaries.
- Overall, a transformation to healthy diets by 2050 will require substantial dietary shifts including a more than doubling in the consumption of healthy foods (fruits, vegetables, legumes and nuts) and a greater than 50% reduction in global consumption of less healthy foods such as added sugar and red meats. A diet rich in plant-based foods and with fewer animal source foods confers both improved health and environmental benefits. However, the changes needed differ greatly by region.
- Five strategies are recommended:
 1. Seek international and national commitment to shift towards healthy diets. (This will require bringing in equity and context-specific into the discussion. The reductions in red meat consumption, for instance, will need to come primarily from Europe and Northern America, whereas many vulnerable groups in low income countries still need to increase their meat consumption to meet some of their critical micronutrient needs.)
 2. Reorient agricultural priorities from producing high quantities of food to producing healthy food. (Here again, context is important, in some contexts increasing food production should still be a target as well in addition to producing healthy food.)
 3. Sustainably intensify food production to increase high-quality output.
 4. Strong and coordinated governance of land and oceans.
 5. At least halve food losses and waste, in line with UN Sustainable Development Goals.

Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems³

Accelerating the transformation of food systems in order to achieve the Paris Agreement climate goals and the SDGs:

- There is substantial scientific evidence that links diets with human health, and environmental sustainability. This report is the first attempt to set universal scientific targets for the food systems that apply to all people and the planet.

The Global Syndemic of Obesity, Undernutrition, and Climate Change: The Lancet Commission report⁴

- The “Global Syndemic” represents the combined effects of the three pandemics: obesity, undernutrition (“malnutrition in all its forms”) and climate change. It affects most people worldwide.
- A system perspective is required to address the syndemic drivers underlying the Global Syndemic within the context of achieving the Sustainable Development Goal, in particular human health and wellbeing, planetary health, social equity and economic prosperity. The major systems drivers are food and agriculture, transportation, urban design and land use.
- It is important to realise that human behaviour does not exist in isolation. The three parts of the human-environment interaction are important. 1) individual agency, characterized by three expressions: decision-making (ability to influence, make and act on decisions), leadership (women’s ability to lead and inspire social change) and collective action (women and girls gain solidarity to take action to advance their interests together); 2) the influence of the environment on individual behaviour; and 3) the influence the individual has to change the environment. The obesity syndemic will need carefully looking into each of those three parts of human-environment interaction and how this can be optimised to eventually contribute to a healthy planet and healthy people.
- Double-duty or triple-duty actions, which simultaneously act on two or all three of the pandemics, need to be worked on collaboratively.
- National, international and local governance needs to be strengthened in order to define and implement evidence-based policy actions and mobilise action and pressure to address the Global Syndemic.
- The influence of the private sector needs to be controlled when it comes to public policy development, however, the private sector should be part of the solution and should

create sustainable and health promoting business models to shift business outcomes from a short-term profit only focus to sustainable, profitable models that include benefits to society and the environment.

The 2019 Global food policy report⁵

- In 2018, rates of hunger increased: global undernourishment continued to rise for the 3rd year in a row.
- Conflict and climate change are key factors holding back countries in achieving the SDGs. There has been little action on climate change, and protracted crises that pose grave risks to food and nutrition security.
- Yet food and nutrition security remained peripheral issues in many high-level events and meetings.
- There is a continued shift on the part of the international community toward (the need of) transforming the whole food system.
- There should be a renewed focus on rural areas: as they are most disadvantaged and are critical to ensure a continued urban food supply. Focusing on rural areas is one of the most practical ways to achieve the SDGs. A ‘rurbanomics’ approach focuses on strengthening the urban-rural linkages to transform and promote rural transformation.
- Recommended interventions on such “rural revitalization” include: ensuring agrifood systems to benefit rural areas, ensure an attractive policy environment for the private sector and blended public-private investments in rural development. Ensure gender equality and women empowerment.
- Modeling estimates using the IMPACT model (International Model for Policy Analysis of Agricultural Commodities and Trade) model the projections for agricultural produce and hunger with and without climate change. These calculations suggest that climate change will lead to an estimated additional 76,8 million people at risk of being hungry in 2050 (405,8 mln without climate change; 482.6 mln with climate change).

Appendix Potential double- and triple duty actions

Programmes/ policy interventions	Potential Activities and Partners		Double/triple duty action
Fiscal policies such as taxation on unhealthy foods and beverages	Junk-food taxes, taxes on sugar-sweetened beverages (e.g. Mexico, UK), high-fat/ sugar foods, meats, (the short-lived “fat-tax” in Kerala state in India; turkey tails in Samoa; fatty meats in Poland), etc. These actions may also include intermediate steps such as passing of relevant regulations/legislation and establishing/ strengthening capacities of regulatory bodies	Ministry of Finance; Ministry of Commerce/ Industry; civil society organisations; regulatory bodies, Ministry of Health; food industry federations, etc.	Taxes on sugar-sweetened beverages is a potential triple-duty action that will likely impact both undernutrition (by eliminating empty calories from diets) as well as addressing obesity. Taxation on meats/ meaty foods may reduce consumption of unhealthy meat based foods thereby reducing obesity as well as reduced methane production by cattle.
Active Transport/built environment	Urban redesign to promote walking/ cycling (such as in The Netherlands; Poland); disincentivise driving with tariffs, improved public transport and subsidies for use of public transport (such as those offered by some of the corporate sector in the US)	Ministry of transport, Ministry of Urban/city planning; corporate business houses.	Potential double-duty actions by reducing obesity and GHG emissions by increasing physical activity and public transport.
Subsidies for production of fruits and vegetables	Fiscal subsidies to producers for production of fruits/vegetables. Ministry of Agriculture; Ministry of Finance. Grocery Manufacturers a	Ministry of Agriculture; Ministry of Finance. Grocery Manufacturers associations. Ministry of Health,	Subsidies are potentially triple-duty actions, with the ability to improve undernutrition, and reduce obesity and GHG produced from alternative foods such as meats.

Nutrition labelling of foods	Food labels on all unhealthy processed foods (e.g in Chile; South Africa); or colour-coded labels for high/medium/low sugar beverages (such as in Sri Lanka) or labels for nutrient contents of all processed foods or all foods served in restaurants	Ministry of Finance; Grocery Manufacturers Associations; restaurant associations.	Potential triple-duty action, with opportunity to improve undernutrition (by encouraging consumption of healthier foods), reduce obesity (by discouraging high fat/high sugar/other unhealthy foods), and reduce GHG production linked to production of high-fat meats.
Media restrictions	Media restrictions on advertisement of unhealthy food products akin to tobacco advertisements restrictions	Ministry of Health, National Health promotion Agency, Ministry of Commerce/ Industry, National TV/Radio associations, consumer associations; regulatory bodies to monitor media.	Potential double-duty action to reduce undernutrition and overweight, especially if media restrictions are on the targeting young children;
Public awareness campaigns	Population-based health promotion and mass media campaigns on diets (such as in Mexico, South Africa, Poland), physical activity and use of bicycles or public transport.	Ministry of Sports; Ministry of Urban/city planning, Ministry of Health, TV/ Radio associations	Potential triple-duty action to reduce undernutrition: promoting a diet of healthy foods and the restriction of empty calories found in junk food can help reduce overweight/obesity as well. Physical or public transport can reduce GHG emissions by reducing car use.
School-based interventions	Nutrition education, growth monitoring and screening children (such as in Poland), promoting physical activity and use of active transport options; banning sale of sugary drinks/junk foods in schools (such as in Mexico, Chile, Poland, South Africa, Thailand, Sri Lanka, USA)	Ministry of Education; Ministry of Health	Potential triple-duty actions by reducing both undernutrition and overweight, and reducing GHG emissions by encouraging active transport options.

Table 1 Potential activities, partners and double- or triple-duty actions according to program or policy interventions. Source: Global Syndemic report³, appendix 4.

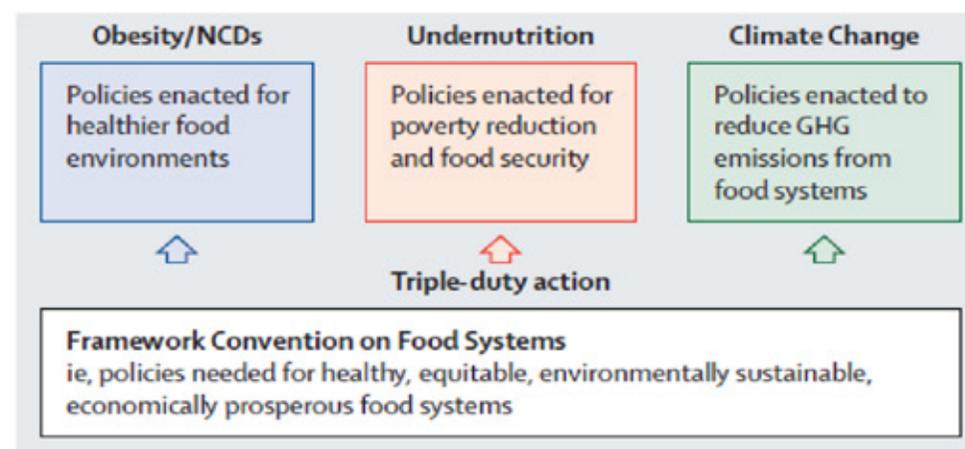
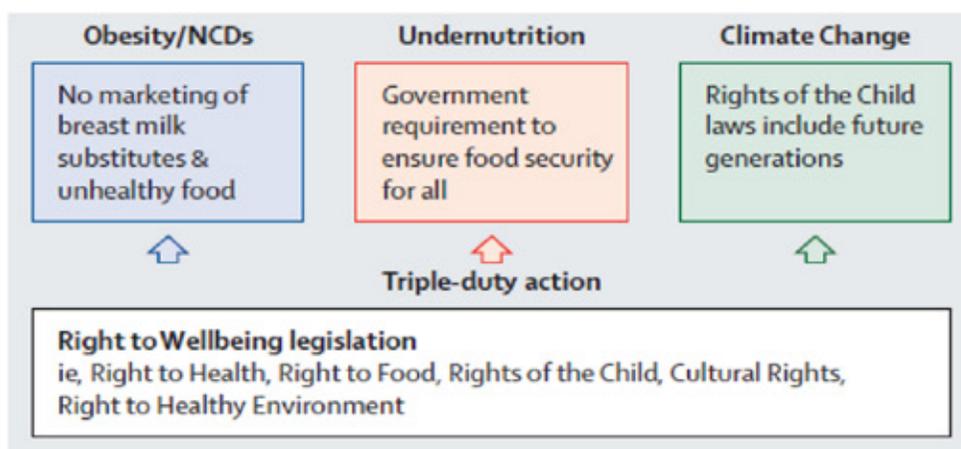
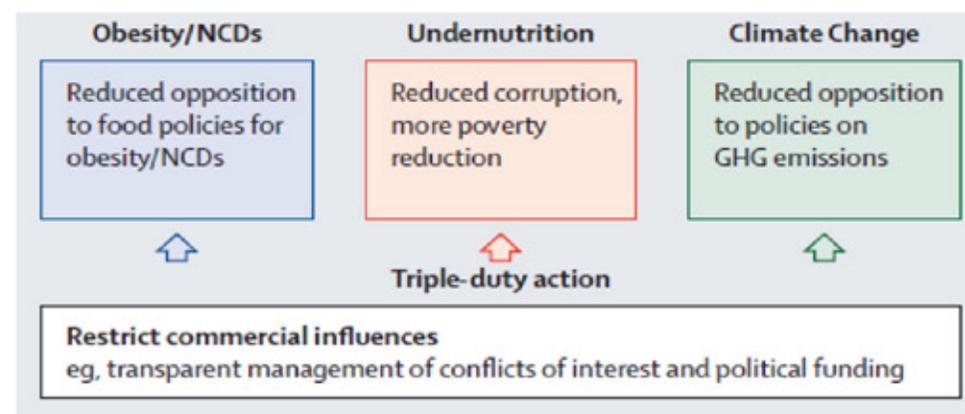
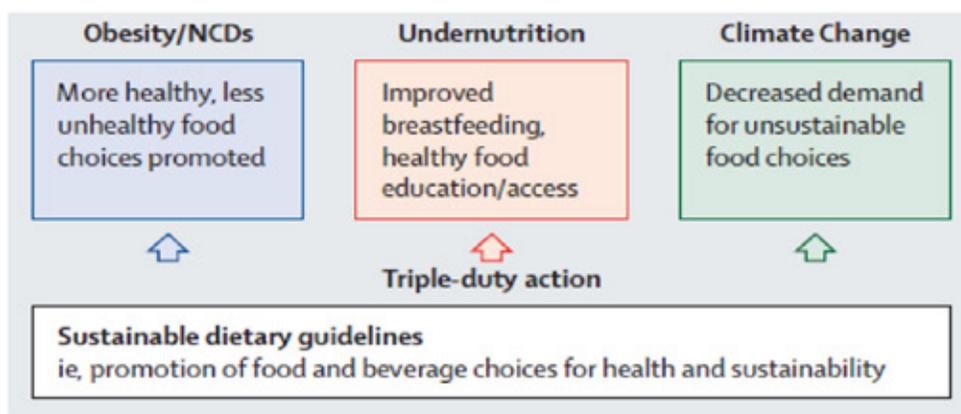
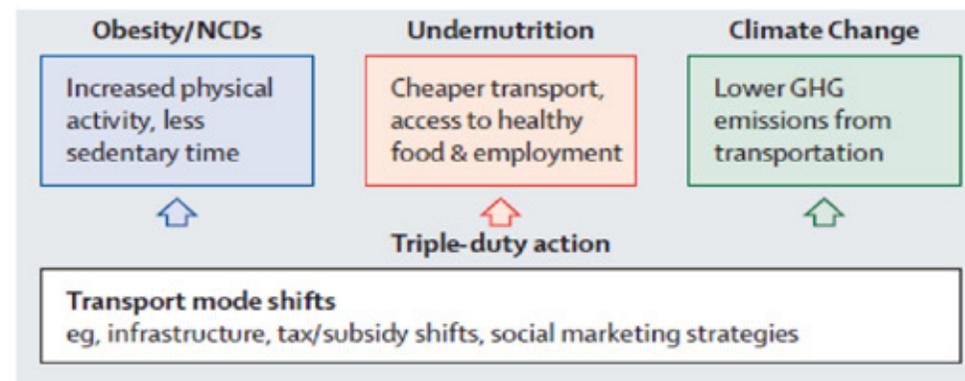
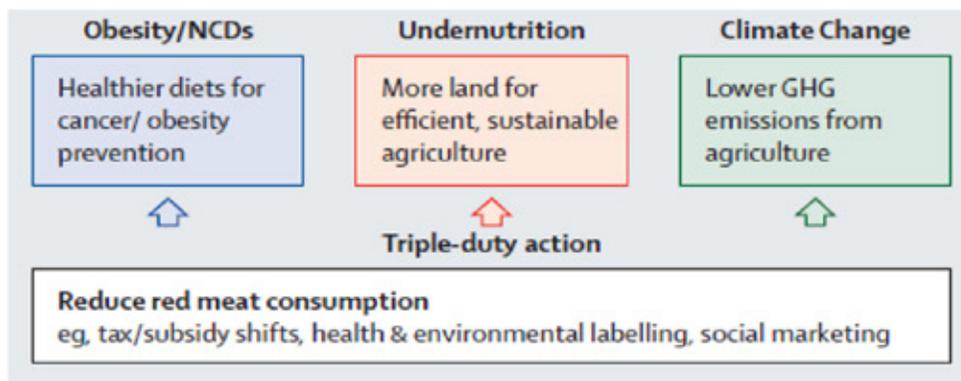


Figure 1 Examples of triple-duty actions. Source: Global Syndemic report³, Policy Brief.

Appendix Recommendations overview

The following matrix has its limitations as the five reviewed reports have different foci or use different 'levels' of recommendations. For instance, IOB recommends more attention to gender and intra household distribution. In EAT Lancet we may not find the latter recommendations, because its focus is on what can be consumed and produced within planetary health limits, not on how to implement it. Recommendations in the Global Syndemic report, on the other hand, are at a different level: after an analysis of current policy inertia, the focus lies with systemic change at governance (policy/institutional) level and including accountability systems. The table reflects what was present in the recommendations of the four reports (for EAT-Lancet summary report- and for the Syndemic report the Synopsis was screened) and in the last column is marked if the same was also recommended in the IOB Food for Thought report:

- V
- + (means implicit or present in the document but not articulated as a recommendation)
- - (not part of the recommendations)

Recommendations by report:	EAT-Lancet	GNR 2018	IFPRI Global Food Policy	Global Syndemic	IOB Food for Thought
Diet					
Quantified dietary recommendations (foods and/or nutrients)	V <i>(Scientific targets for a planetary health diet, with possible ranges, for an intake of 2500 kcal/day)</i>	V <i>(Box 4.1 A healthy diet) (Dietary risks exposure definition)</i>	-	-	-
Meat consumption: moderation	V	V	-	V	-
Fish consumption: moderation	V	-	-	-	-

Recommendations by report:	EAT-Lancet	GNR 2018	IFPRI Global Food Policy	Global Syndemic	IOB Food for Thought
Animal source food consumption: moderation	V <i>(careful consideration of animal product consumption depending on context)</i>	V <i>(especially processed meat)</i>	–	V	–
Attention for micronutrients	V	V	–	V	–
“depends on local context”	V		–	V <i>(socio-cultural context p 827)</i>	V
Climate					
Climate change adaptation and mitigation	V	–	V	V	V <i>(“resilience”)</i>
Climate change reduction through agriculture	V <i>(becoming a net sink of carbon)</i>	–	–	V	–
Agriculture					
Sustainable intensification ⁱⁱ	V	–	–	–	–
Stop expansion of agricultural land	V		–		–

Recommendations by report:	EAT-Lancet	GNR 2018	IFPRI Global Food Policy	Global Syndemic	IOB Food for Thought
Nutrition-sensitive agriculture	–	–	–	–	✓
From quantity to quality of produce (kg to nutrients)	✓ <i>(sustainably intensify food prod to increase high quality output)</i>	–	–	–	–
Biodiversity	✓	–	✓	✓	–
Holistic - food system - system approach	✓	✓ <i>(break the silos)</i>	✓ <i>(e.g. p.21)</i> <i>(Provides a "lynchpin" towards sustainable food system)</i>	✓ <i>(Join up the silos)</i>	✓ <i>(Improving coherence and synergy between actionsⁱⁱⁱ)</i>
Integrated in/ operationalised in value chains	–	– <i>(only in IFAD and EU approach)</i>	✓ ^{iv}	✓	✓ <i>(seeking solutions for long-term challenges to sustainability: production efficiency, inclusiveness, climate resilience, sustainability, nutrition and health, and a conducive business environment)</i>
Double and triple duty actions	–	± <i>(in GNR 2017 but not in 2018 although implied in holistic approach)</i>	–	✓ <i>(On 2 or all pandemics)</i>	–

Recommendations by report:	EAT-Lancet	GNR 2018	IFPRI Global Food Policy	Global Syndemic	IOB Food for Thought
Reduce food loss & waste	V (at least half)	–	V (e.g. p.20)	± (In analysis, not in recommendations)	–
Educating consumers	V ^v (food waste)	–	–		V (healthy choices)
Food environment	–	V (p. 67)	–	V ^{vi} (Obesogenic environment (as cause))	–
(Key) focus on governance	V (Strategy 4)	– (in spotlights and earlier GNRs)	V (key!)	V (Calls for Framework Convention on Food Systems)	–
PPPs	–	– Only in spotlights	V	± ("new business models" see rec ^{vii})	V but ^{viii}
Transparency and accountability	– (only seafood transparency)	V	V	V ^{ix}	–!!
Gender or Women Empowerment	–	– (Spotlight 5.6)	V (WE /gender lens)	V ^{xxi}	V
Reducing population growth	– (mentioned as challenge)	–	–	– (mentioned as driver)	–

Recommendations by report:	EAT-Lancet	GNR 2018	IFPRI Global Food Policy	Global Syndemic	IOB Food for Thought
Key focus on rural	–	–	✓ <i>(Rural revitalization as a systemic approach)</i>	–	✓
Coordinated simultaneous urban and rural development	–	–	✓ <i>(Rurbanomics^{xii})</i>	✓	–
Reduce the influence of large commercial interests on public policy development	–	✓ <i>(Governments must incentivise change by the private sector^{xiii})</i>	–	✓	± <i>(implied in: ensure awareness of potential conflicts between public and private interests^{xiv})</i>
Learning from traditional, indigenous people <i>(like IPbes)</i>	–	–	–	✓	–
Prioritise and invest in the data needed and capacity to use it	–	✓	–	± <i>(Focus research on The Global Syndemic determinants and actions^{xv})</i>	–
Scale up and diversify financing for nutrition	–	✓	✓	✓	–

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- i *A planetary health plate should consist by volume of approximately half a plate of vegetables and fruits; the other half, displayed by contribution to calories, should consist of primarily whole grains, plant protein sources, unsaturated plant oils, and (optionally) modest amounts of animal sources of protein.*
 - ii *According to the launch of the EAT-Lancet report Sustainable Intensification is about breaking the dichotomy between ecological and conventional agriculture and to merge the together to enable a reduction of the yield gap in Africa and an increase in sustainability in agriculture in Europe*
 - iii *the hierarchy of policy objectives needs to be clarified*
 - iv *The rurbanomics approach emphasizes the vitality of rural economies not only as drivers of food security and rural well-being, but also as springboards for national, regional, and global value chains and as providers of quality environmental services for a sustainable world. (p.19)*
 - v *Also post-harvest infrastructure, processing, packaging etc.*
 - vi *make the healthy and sustainable choices the easy and default choices*
 - vii *Sustainable and health-promoting business models for the 21st century p.837*
 - viii *IOB: Continue with public-private partnerships for leverage and impact, but ensure additionality, awareness of potential conflicts between public and private interests, and that the public interests are anchored in project design and monitoring.*
 - ix *Transparent and accountable governance structures are needed that are free from conflicting interests, inclusive of civil society groups, and responsive to the needs of citizens. P. 803*
 - x *One broad strategy for addressing The Global Syndemic is, therefore, to give people the capacity to take personal responsibility for their own health by reducing poverty, strengthening education, and reducing structural and social prejudice on the basis of gender, religion, and race.p.804*
 - xi *Third, the right to wellbeing framework requires Member States to adopt gender-sensitive, non-discriminatory interventions that include infants, children, the elderly, and pregnant or lactating women.p.820*
 - xii *Rurbanomics is an approach that frames rural economies as equal partners with urban economies, emphasizing the vitality of rural economies as drivers of food security and rural well-being; as springboards for value chains; and as providers of quality environmental services.*
 - xiii *Governments must incentivise change by the private sector while guaranteeing transparency when conflicts of interests arise. The private sector must redouble its efforts to increase the availability of a wide array of foods that contribute to healthy diets and reduce foods high in fats, sugars and salt. Both governments and business must create food systems and environments that deliver affordable, accessible and desirable healthy diets for all. P.127*
 - xiv *Continue with public-private partnerships for leverage and impact, but ensure additionality, awareness of potential conflicts between public and private interests, and that the public interests are anchored in project design and monitoring.*
 - xv *Focus research on The Global Syndemic determinants and actions Creating an evidence base of systemic drivers and actions, including traditional approaches to health and wellbeing, will require research focused on The Global Syndemic determinants and actions. P.837*