



WHAT MINISTRIES OF AGRICULTURE NEED TO KNOW

Noncommunicable
diseases

KEY POINTS

- The food and agriculture sector is inextricably linked with noncommunicable diseases (NCDs).
- The main dietary contributors to the NCD epidemic are clear.
- Fiscal policies are a powerful weapon in the fight against NCDs.
- Broader food, agriculture and socioeconomic policies have a major impact on NCDs.
- Ministries of agriculture¹ should recognize that the right to health is a fundamental responsibility across government and take NCD action accordingly.
- Tobacco control is good for both agricultural and sustainable development objectives.

1. The food and agriculture sector is inextricably linked with NCDs.

- The food and agriculture sector is charged with increasing the availability of and access to diverse, safe and nutritious foods in an environmentally sustainable way.²
- Unhealthy diet is a leading risk factor for premature death and disease.³ Approximately 815 million people are chronically undernourished. Two billion people are overweight or obese.⁴ Of the world's 41 million overweight or obese children under five, most reside in low- and middle-income countries (LMICs).⁵
- Food systems need to be repositioned, from only supplying food to sustainably providing high-quality foods that support healthy diets for all.⁶ Simply put, the right to food must not be reduced to the "right to not starve."⁷ Currently, foods necessary to sustain good health are often out of reach and a luxury for poor and vulnerable populations, while health-harming food products are often least expensive, aggressively marketed and most available.

Key messages from the Second International Conference on Nutrition (ICN2)⁸

- Current food systems are dysfunctional.
- Food systems' change is needed to address not just wasting, stunting and micronutrient deficiencies but *all forms* of malnutrition including overweight and obesity.
- Consuming a healthy diet throughout the life-course helps to prevent malnutrition in all its forms.
- Every aspect of the food system must be made 'nutrition-sensitive' as single interventions in isolation are unlikely to have a significant impact. Considering food systems as a whole is more effective.

Achieving the NCD-related SDG targets will deliver gains across Agenda 2030, given the relationship between NCDs, poverty, inequalities, economic growth, climate action and other goals and targets. WHO and UNDP, as part of a larger UN system-wide response, support whole-of-government NCD responses. WHO, in line with its thirteenth General Programme of Work, provides technical assistance to the health sector to map the epidemic, set national targets, develop multisectoral policies and plans, and enable health systems to respond. UNDP, in line with its Strategic Plan 2018-2021⁹ and HIV, Health and Development Strategy 2016-2021¹⁰, supports NCD action within and beyond the health sector, leveraging its work to keep people out of poverty, strengthen effective and inclusive governance, and build resilient and sustainable systems for health.

What are NCDs and why must government work together?

There are four main NCDs: cardiovascular diseases (which include heart disease and strokes), cancers, diabetes and chronic respiratory disease.

40 million people die from NCDs each year, including 15 million people who die between the ages of 30 and 69. Over 80 percent of these 'premature' deaths from NCDs occur in low- and middle-income countries. Most premature NCD deaths are from four main behavioural risk factors – tobacco use, harmful use of alcohol, physical inactivity and unhealthy diet. Environmental risks (e.g. air pollution) also contribute significantly to NCDs.

Population exposure to risk factors for NCDs is determined largely by policies in trade, agriculture, labour, tax, urban planning, education and other 'non-health' sectors. This means that early illness, death and disability from NCDs are largely avoidable through better policy coherence across sectors.

Given the social, economic and environmental burdens of NCDs, it is possible to identify strategies and approaches that deliver shared gains for all sectors involved.

2 FAO (2015). Designing nutrition-sensitive agriculture investments. <http://www.fao.org/3/a-i5107e.pdf>

3 GBD 2016 Risk Factors Collaborators. Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet* 2017, 390 (10100): 1345–1422.

4 FAO (2017). How close are we to #zero hunger? The state of food security and nutrition in the world 2017. <http://www.fao.org/state-of-food-security-nutrition/en/>

5 WHO (2016). Report of the Commission on Ending Childhood Obesity. http://apps.who.int/iris/bitstream/10665/204176/1/9789241510066_eng.pdf

6 FAO (2013). The State of Food and Agriculture – Food systems for better nutrition. <http://www.fao.org/docrep/018/i3300e/i3300e.pdf>

7 A/HRC/19/59. Report submitted by the Special Rapporteur on the right to food, Olivier De Schutter. http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session19/A-HRC-19-59_en.pdf

8 <http://www.fao.org/about/meetings/icn2/en/?%29%04>

9 UNDP Strategic Plan, 2018-2021. <http://undocs.org/DP/2017/38>

10 UNDP (2016). HIV, Health and Development Strategy 2016-2021. <http://www.undp.org/content/undp/en/home/librarypage/hiv-aids/hiv-health-and-development-strategy-2016-2021.html>

- Environmentally sustainable and healthy agricultural policies go hand-in-hand. Greater production and consumption of fruit and vegetables with a reduction in production and consumption of animal products is more sustainable and benefits health. Particular attention must be given to livestock practices because livestock, primarily cattle, is responsible for deforestation and almost 15 percent of human-induced greenhouse gas emissions. The inappropriate use of antibiotics in animals is a leading cause of rising antimicrobial resistance.^{11,12} Pesticides and chemicals used in food production are underlying causes of various cancers in farming-communities and consumers. Biodiversity loss due to industrial agricultural practices threatens nutritional diversity and health. Tobacco growing is particularly concerning as it strips land and soil of its viability and leads to deforestation, interfering with efforts to secure healthy and diverse food.¹³

Food, agriculture, NCDs and the economy

Ultra-processed foods, sugar-sweetened beverages (SSBs) and tobacco are often perceived as components of a progressive economy. But these products are also a drag on the economy because the illness and premature mortality they cause increase health costs and significantly reduce productive capacities. NCDs are projected to cost developing countries US\$ 21.3 trillion between 2011 and 2030. Obesity already costs the world US\$ 2 trillion per year,¹⁴ and tobacco use costs US\$ 1.4 trillion annually.¹⁵ Governments that promote and pursue coherence between agriculture, trade and health can truly achieve a progressive economy.¹⁶

2. The main dietary contributors to the NCD epidemic are clear.

- The consumption of ultra-processed foods, often energy-dense and high in fat, sugar and/or salt (e.g. SSBs, processed meats) as well as refined carbohydrates, has increased relative to the consumption of nutritious foods (e.g. fruits, vegetables, whole grains, seafood) in all countries.¹⁷

Healthy diet – the basics¹⁸

Countries are encouraged to:

- Increase production, distribution, marketing and retail of fresh fruits and vegetables, lean proteins, legumes, complex grains/slow-digesting carbohydrates, nuts, seeds, olive oils and other unsaturated fats.
 - Regulate and limit population exposure to processed foods that contain trans-fats and/or are high in saturated fats, sugar, and sodium. This includes fried foods, SSBs and processed meats.
 - Pay special attention to sugar-packed beverages masquerading as fruit juices or water, sugar-laden baby formulas, high fructose corn syrup and items marketed as 'low fat' but filled with starches, sugars and chemicals.
- 'Big food', 'big sugar' and 'big beverage' industries try to obscure proven links between unhealthy diet, obesity and poor health.^{19,20} These industries often act like the tobacco industry, using misleading arguments such as: "Obesity is a broad challenge – we should not single out a specific product", "people need to lead a 'balanced lifestyle' of 'moderation'", "low levels of physical activity are the real issue – not food", and "governments should not tell people what to eat." None of these arguments survive scrutiny.²¹ It is important

11 WHO (2017). WHO guidelines on use of medically important antimicrobials in food-producing animals. http://www.who.int/foodsafety/publications/cja_guidelines/en/

12 FAO (2013). Tackling climate change through livestock – A global assessment of emissions and mitigation opportunities. <http://www.fao.org/docrep/018/i3437e/i3437e.pdf>

13 WHO (2017). Tobacco and its environmental impact: an overview. <http://www.who.int/tobacco/publications/environmental-impact-overview/en/>

14 McKinsey Global Institute (2014). How the world could better fight obesity. <https://www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/how-the-world-could-better-fight-obesity>

15 Goodchild, M, Nargis, N, and d'Espaignet, ET. Global economic cost of smoking-attributable diseases. *Tob Control* Published Online First: 30 January 2017. doi: 10.1136/tobaccocontrol-2016-053305

16 The ICN2 framework of action has policy recommendations on trade (#17 and #18). Trade is part of the Decade of Action on Nutrition.

17 Global Panel on Agriculture and Food Systems for Nutrition (2016). Food systems and diets: Facing the challenges of the 21st century. <http://glopan.org/sites/default/files/ForesightReport.pdf>

18 This box presents a general categorical summary of foods that are either more or less conducive to a healthy diet. For specific technical guidelines, see: http://www.who.int/nutrition/publications/nutrientrequirements/healthydiet_factsheet394.pdf

19 Bes-Rastrollo, M, et al. Financial conflicts of interest and reporting bias regarding the association between sugar-sweetened beverages and weight gain: a systematic review of systematic reviews. *PLoS Med* 2013, 10(12): e1001578.

20 Massougbojii, J, et al. Reviews examining sugar-sweetened beverages and body weight: correlates of their quality and conclusions. *Am J Clin Nutr* 2014, 99(5): 1096-104.

21 Certain products, for example SSBs, have been independently linked to NCD epidemics; they should be singled out. A generic emphasis on moderation obscures the importance of relative consumption (e.g. should vegetables be eaten in the same "moderation" as desserts?). Physical activity will not by itself support population-wide weight management in the context of today's food environment. Governments are entrusted to ensure health-promoting environments and to respect, protect and fulfil the human right to health.

that governments are not unduly influenced by these industries when developing policies.

3. Fiscal policies are a powerful weapon in the fight against NCDs.

Taxation of health-harming products – for example tobacco, alcohol and SSBs – is cost-effective and delivers a ‘triple win’²²: (1) reduced consumption of unhealthy products, thus averting their significant health and economic costs; (2) bringing governments increased revenue; and (3) allowing this revenue to be invested into health and development. Raising cigarette excise taxes by US\$ 0.80 per pack in all countries would generate an extra US\$ 141 billion in revenue globally.²³

- Mexico’s sugar tax has reduced consumption of sugary drinks, while generating over US\$ 1 billion in government revenue. Consumption declined most in low-income Mexicans, who are most vulnerable to NCDs and their consequences.²⁴
- Thailand has a new excise tax on sugary drinks as of September 2017.²⁵
- Tonga has, year-on-year, extended increased import duties on tobacco, SSBs, alcohol, and food high in fat.²⁶



4. Broader food, agriculture and socioeconomic policies have a major impact on NCDs.

Over recent years, many countries have focused on increasing the availability and accessibility of foods to tackle food insecurity and undernutrition.²⁷ Food assistance and social protection policies and programmes have often been geared towards this. Recent evidence, however, suggests that in some cases such policies have led to increased consumption of energy-dense, nutrient-poor foods and beverages which result in overweight, obesity, high blood pressure and NCDs.²⁸ Ministries of agriculture must routinely consider both caloric quality and quantity, ensuring that policies designed to address undernutrition do not inadvertently result in overweight and obesity.^{29,30}

Many countries subsidize the farming of animals and animal products as well as staples such as maize, soybeans and wheat, which consumed in excess are associated with overweight and obesity, and whose production can also contribute to environmental degradation. At the same time, there has been relatively less attention given to promoting and subsidizing foods such as fruits, vegetables and pulses. As a result, healthy food is often considerably more expensive and less available.

22 WHO. Global database on the Implementation of Nutrition Action (GINA). <http://www.who.int/nutrition/gina/en/>

23 Goodchild, M, Perucic, A, and Nargis, N. Modelling the impact of raising tobacco taxes on public health and finance. *Bull World Health Organ* 2016, 94: 250-257. The WHO-recommended standard that tobacco excise taxes account for at least 70 percent of the retail price for tobacco products.

24 Colchero, MA, et al. In Mexico, Evidence of Sustained Consumer Response Two Years After Implementing a Sugar-Sweetened Beverage Tax. *Health Affairs* 2017, 36(3): 564-571.

25 Pisuthippan, A (2017). “Sugar fixed?” *Bangkok Post*, 26 Jun 2017. <http://www.bangkokpost.com/lifestyle/social-and-lifestyle/1275815/sugar-fixed>

26 Crown Law Tonga, *Excise Tax (Amendment) Order 2016*. 2016. Crown Law Tonga, *Customs Duty (Amendment) Order 2016*, Ministry of Revenue and Customs. *New Duty and Excise Tax Rates to Encourage Healthy Living*. 2013 [May 10 2017]. <http://www.revenue.gov.to/Article.aspx?Mode=1&ID=1585&ESID=1769>.

27 UN Standing Committee on Nutrition (2016). Investments for Healthy Food Systems. A Framework Analysis and Review of Evidence on Food System Investments for Improving Nutrition. Implementing the Framework for Action of the Second International Conference on Nutrition. <https://www.unscn.org/uploads/web/news/document/EN-final-Investments-for-Healthy-Food-Systems-UNSCN.pdf>

28 See e.g. Hawkes, C. Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases. *Global Health* 2006, 2:4; Hawkes C, Chopra M, and Friel, S. Globalization, Trade and the Nutrition Transition. In: *Globalization and Health: Pathways, Evidence and Policy*. Edited by Labonte R, Schrecker T, Packer C, Runnels V. New York: Routledge; 2009; Kimbro RT and Rigby, E. Federal food policy and childhood obesity: a solution or part of the problem? *Health Affairs (Millwood)* 2010, 29(3):411-418; Abay, A. Do Government Food Price Policies Affect the Prevalence of Obesity? Empirical Evidence from Egypt. *World Development*, 35:687-701.

29 WHO. Double-duty actions for nutrition policy brief. <http://apps.who.int/iris/bitstream/10665/255414/1/WHO-NMH-NHD-17.2-eng.pdf?ua=1>

30 UN Standing Committee on Nutrition (2016). Impact Assessment of Policies to support Healthy Food Environments and Healthy Diets. Implementing the Framework for Action of the Second International Conference on Nutrition. <https://www.unscn.org/uploads/web/news/document/DiscPaper3-FN-WFB.pdf>

Food-based dietary guidelines (FBDGs) can guide policies, programmes and nutrition education

Food-based dietary guidelines consider a country's food availability, diet patterns, cultural preferences and nutrition-related health issues. They present a set of easily-understood and scientifically sound messages for the general public. They establish a basis for food, nutrition, health and agricultural policies and programmes. The FAO repository on FBDGs provides a comprehensive collection of national FBDGs from all over the world.³¹

5. Ministries of agriculture should recognize that the right to health is a fundamental responsibility across government and take NCD action accordingly.

Agenda 2030, the 2014 Rome Declaration of ICN2, and the proclamation of the Decade of Action on Nutrition³² recognize the need for action across the food system to reduce NCDs. Ministries of agriculture should work with health and other relevant sectors to promote:

- Import/export duties to make nutritious foods (e.g. fruit, vegetables and fresh fish) more affordable, and foods that are high in fat, sugars and/or salt less affordable.
- WHO's Global Strategy on Diet, Physical Activity and Health, the International Code of Marketing of Breast-milk Substitutes, and WHO's recommendations on the marketing of foods and non-alcoholic beverages to children.
- School feeding programmes/lunches that are safe and nutritious with limits or bans on products high in fat, sugar and/or salt. Linking local farmers and suppliers to schools.
- Eliminating/replacing trans-fats from the food supply and supporting efforts to reduce the population's intake of salt.

- Increasing excise taxes on energy-dense and nutrient-poor foods and beverages.

Ministries of agriculture should also help promote:

- Initiatives that increase access to safe, nutritious and diverse foods, especially for marginalized populations, by engaging local farmers and improving access to local markets.
- Constructive and transparent working partnerships with the food and retail sector to reformulate and/or limit portion sizes of unhealthy offerings, and expand product lines to include well-marketed healthy options.³³
- Stimulating demand for nutritious foods and beverages through subsidies, food labelling and community awareness, with dedicated outreach to women³⁴ and lower-income populations.
- Measures that reduce access and exposure to health-harming products, for example zoning and restrictions in marketing, advertising, promotion and sponsorship.
- The evaluation and monitoring of food and social policies/programmes (e.g. subsidies to farmers, food assistance programmes) to ensure these are aware of their impacts on health and nutrition.
- Eliminating the use of pesticides, chemicals and harmful antibiotics in food production.³⁵

6. Tobacco control is good for both agricultural and sustainable development objectives.

- Tobacco consumption kills over 7 million people each year. Its production has costs, too. Tobacco farming is a major contributor to soil degradation, deforestation, biodiversity loss, and water pollution. Tobacco growers often endure nicotine poisoning from harvesting the tobacco leaves. Tobacco production is associated with unpaid child labour and low-

31 FAO. Food-based dietary guidelines. <http://www.fao.org/nutrition/education/food-dietary-guidelines/home/en/>

32 In April 2016, the UN General Assembly committed countries to ten years of sustained and coherent nutrition action.

33 Article 5.3 of the WHO FCTC obliges countries to firewall the tobacco industry from policymaking; however, engagement with the food industry can be constructive *where governments are cautious and transparent*.

34 Women are often primary caregivers of children and can uniquely influence what children and households consume. Empowering women with information and resources improves virtually every health and development outcome.

35 For example by providing relevant regulatory and tax incentives, incentivizing the market for green inputs (e.g. organic fertilizers and natural pesticides), and supporting farmers to use sustainable intensification techniques (e.g. integrated pest management and agroforestry).

cost and debt-bonded adult labour. Cigarette manufacturers and leaf buying companies often exploit farmers financially.^{36,37}

Tobacco and agriculture – four facts

- Some 10 to 20 million malnourished people worldwide could be fed if food crops were grown instead of tobacco.³⁸ In Malawi, where undernourishment was 27 percent in 2008, one hectare used to produce one ton of tobacco leaf can instead produce 14.6 tons of potatoes.³⁹
- When tobacco farmers in Kenya switched to growing bamboo, the comparative net value of the two crops showed rates of return to be more than 300 percent higher for bamboo farmers.⁴⁰ In Indonesia, less than one in five tobacco farmers say that tobacco farming is profitable.⁴¹
- Low-income smokers spend scarce household resources on cigarettes instead of food. In Sri Lanka, 83 servings of rice and 65 slices of bread could be bought for the price of a pack of cigarettes.⁴²
- The International Tobacco Growers Association (ITGA) promotes itself as protecting the interests of small farmers, yet in reality was formed to defend the interests of the tobacco industry.

The food and agriculture sector needs to advocate for the end of tobacco growing and support tobacco farmers to transition to alternative economic activities.

7. Getting started...

In the first instance, ministries of agriculture should:

- Ensure their sector is in structured dialogue with ministries of health, and part of the national NCD multisectoral action plan and coordinating mechanism.
- Map food and agricultural policy to ensure coherence with health and sustainable development policies.
- Protect against industry interference in policymaking, including industry-backed front groups (e.g. illegitimate farmers' and consumers' organizations).

Premature deaths and avoidable suffering from NCDs are the scourge of the 21st century. But with the right policies, the right investments, and the right support from all partners, the tide can be turned on NCDs.

Articles 17 and 18 of the WHO Framework Convention on Tobacco Control are on securing alternative livelihoods for tobacco farmers and protecting the environment.



- 36 McKnight, RH, and Spiller, HA. Green Tobacco Sickness in Children and Adolescents. *Public Health Rep* 2005, 120(6): 602-606.
- 37 Hu, T, and Lee, A. Tobacco Control and Tobacco Farming in African Countries. *J Public Health Policy* 2015, 36(1): 41-51.
- 38 Barry, M. The influence of the US tobacco industry on the health, economy, and environment of developing countries. *New Eng J Med* 1991; 324:917-9.
- 39 Eriksen, M, Mackay, J, and Ross, H (2012). *The Tobacco Atlas: Fourth Edition*. American Cancer Society and World Lung Foundation.
- 40 Omari, MP (2009). A cost-benefit analysis of substituting bamboo for tobacco: a case study of South Nyanza, Kenya. <http://www.tobaccotobamboo.org/Publications/Publications%20in%20Journals%20and%20Book%20Chapters/My%20Thesis-examinable%20draft.pdf>
- 41 Anindita, E (2015). "Tobacco farming no longer profitable, survey finds." *The Jakarta Post*, 30 Oct 2015 <http://www.thejakartapost.com/news/2015/10/30/tobacco-farming-no-longer-profitable-survey-finds.html>
- 42 Eriksen, M, et al. (2015). *The Tobacco Atlas: Fifth Edition*. American Cancer Society and World Lung Foundation. http://3pk43x313gg4cy0lh3tctjh.wpengine.netdna-cdn.com/wp-content/uploads/2015/03/TA5_2015_WEB.pdf

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